

OFFERING MEMORANDUM



\$1,033,242,000
CONNECTICUT AVENUE SECURITIES TRUST 2020-R01

Issuer

FANNIE MAE
Trustor and Administrator

**CONNECTICUT AVENUE SECURITIES,
 Series 2020-R01 Notes Due January 2040**

Offered Notes: The Classes of Notes shown below. The Class 1M-2 Notes are a Class of RCR Notes. The Class 1B-1 Notes are a Class of Exchangeable Notes. These Notes may be exchanged for other Classes of Notes and vice versa in the combinations set forth on Schedule I. Schedule I also sets forth further combinations of other Classes of RCR Notes and Exchangeable Notes. The Offered Notes and the other Exchangeable and RCR Notes are referred to as the "Notes".

Offering Terms: The initial purchasers (each, an "Initial Purchaser") named below are offering the Offered Notes.

Closing Date: On or about January 23, 2020.

| Note Classes | Original Principal Balance | Class Coupon | CUSIP Number | Maturity Date | Expected Ratings (Fitch/KBRA) | Price to Investors | Initial Purchaser Discounts | Proceeds to Issuer |
|--------------|----------------------------|--------------|--------------|---------------|-------------------------------|--------------------|-----------------------------|--------------------|
| 1M-1 | \$303,085,000 | (1) | (2) | January 2040 | BBB-sf / BBB+ (sf) | % | 0.25% | (3) |
| 1M-2 | \$523,509,000 | (1) | (2) | January 2040 | Bsf / BB (sf) | % | 0.50% | (3) |
| 1B-1 | \$206,648,000 | (1) | (2) | January 2040 | NR / NR | % | 0.50% | (3) |

- (1) See "Summary of Terms — Interest" herein.
- (2) See "Summary of Terms — CUSIP Numbers" herein.
- (3) See "Distribution Arrangements" herein.

You should read this Offering Memorandum together with all documents that are incorporated by reference in this Offering Memorandum. See "Additional Information" herein. Each recipient of this Offering Memorandum is deemed to agree that under no circumstance will the information contained herein be used by it to derive information about any particular individual in violation of applicable privacy laws and regulations.

The Connecticut Avenue Securities, Series 2020-R01 Notes are complex financial instruments and may not be suitable investments for you. You should consider carefully the risk factors described beginning on page 39 of this Offering Memorandum, on page 25 of Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2018 and on page 106 of Fannie Mae's Quarterly Report on Form 10-Q for the period ended September 30, 2019. You should not purchase Notes unless you understand and are able to bear these and any other applicable risks. You should purchase Notes only if you understand the information contained in this Offering Memorandum and the documents incorporated by reference in this Offering Memorandum.

THE NOTES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR UNDER THE SECURITIES OR BLUE SKY LAWS OF ANY STATE. ACCORDINGLY, THE NOTES ARE BEING OFFERED AND SOLD ONLY (A) IN THE UNITED STATES TO "QUALIFIED INSTITUTIONAL BUYERS" WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT AND (B) IN OFFSHORE TRANSACTIONS TO PERSONS WHO ARE NOT "U.S. PERSONS" IN RELIANCE ON REGULATIONS UNDER THE SECURITIES ACT. THE NOTES ARE NOT TRANSFERABLE EXCEPT TO QUALIFIED INSTITUTIONAL BUYERS OR CERTAIN OTHER ENTITIES, EACH IN ACCORDANCE WITH THE RESTRICTIONS DESCRIBED IN "DISTRIBUTION ARRANGEMENTS — SELLING RESTRICTIONS" ON PAGE 219 OF THIS OFFERING MEMORANDUM.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved the notes or determined that this Offering Memorandum is accurate or complete. Any representation to the contrary is a criminal offense.

Prospective investors should be aware that they may be required to bear the financial risks of this investment for an indefinite period of time.

The Notes are obligations (or interests in obligations) of the Issuer only. The RCR Notes represent interests in the related Exchangeable Notes. The Notes, including any interest or return of discount on the Notes, are not guaranteed by, and are not debts or obligations of, Fannie Mae or of the United States or any agency or instrumentality of the United States.

This Offering Memorandum may only be used for the purposes for which it has been published.

The information contained in this Offering Memorandum is not complete and may be changed. The Issuer will not sell these Notes until the Offering Memorandum is in final form. This Offering Memorandum is not an offer to sell these Notes and is not soliciting an offer to buy these Notes in any jurisdiction where the offer or sale is not permitted.

OFFERING MEMORANDUM



The Index of Definitions beginning on page 224 of this Offering Memorandum shows where definitions of certain defined terms appear in this Offering Memorandum.

The Notes are expected to be made eligible for trading in book-entry form through the Same-Day Funds Settlement System of The Depository Trust Company ("DTC"), which may include delivery through Clearstream Banking, société anonyme and the Euroclear System, against payment therefor in immediately available funds.

Morgan Stanley

Lead Manager and Joint Bookrunner

Wells Fargo Securities

Co-Lead Manager and Joint Bookrunner

BofA Securities

Co-Manager

Citigroup

Co-Manager

Goldman Sachs

Co-Manager

Nomura

Co-Manager

Drexel Hamilton, LLC

Selling Group Member

Loop Capital Markets LLC

Selling Group Member

January __, 2020

THE NOTES HAVE NOT BEEN REGISTERED WITH, OR RECOMMENDED BY, ANY FEDERAL, STATE OR NON-U.S. SECURITIES COMMISSION, SECURITIES REGULATORY AUTHORITY OR INSURANCE OR OTHER REGULATORY BODY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT REVIEWED THIS DOCUMENT NOR CONFIRMED OR DETERMINED THE ADEQUACY OR ACCURACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

SIMULTANEOUSLY WITH THE ISSUANCE OF THE NOTES, THE ISSUER WILL ENTER INTO (I) A COLLATERAL ADMINISTRATION AGREEMENT WITH FANNIE MAE AND THE INDENTURE TRUSTEE UNDER WHICH FANNIE MAE WILL BE REQUIRED TO PAY TRANSFER AMOUNTS TO THE ISSUER (IT BEING UNDERSTOOD THAT THE TRUST ESTATE YIELD FOR A PAYMENT DATE WILL BE DEEMED TO SATISFY, UP TO THE AMOUNT OF SUCH TRUST ESTATE YIELD, FANNIE MAE'S TRANSFER AMOUNT PAYMENT OBLIGATION FOR THE RELATED REMITTANCE DATE) AND ANY RETURN REIMBURSEMENT AMOUNTS, TO THE EXTENT APPLICABLE, AND THE ISSUER WILL BE REQUIRED TO PAY RETURN AMOUNTS TO FANNIE MAE IF CERTAIN CREDIT EVENTS OR CERTAIN MODIFICATION EVENTS OCCUR, AND (II) A CAPITAL CONTRIBUTION AGREEMENT WITH FANNIE MAE UNDER WHICH FANNIE MAE (OR AN ASSIGNEE THEREOF) WILL BE REQUIRED TO PAY TO THE ISSUER CAPITAL CONTRIBUTION AMOUNTS. THE ISSUER'S RIGHTS, TITLE AND INTEREST IN THE COLLATERAL ADMINISTRATION AGREEMENT AND CAPITAL CONTRIBUTION AGREEMENT WILL BE GRANTED TO THE INDENTURE TRUSTEE, ON BEHALF OF NOTEHOLDERS, PURSUANT TO THE INDENTURE. A TERMINATION OF THE COLLATERAL ADMINISTRATION AGREEMENT WILL RESULT IN A CONCURRENT TERMINATION OF THE CAPITAL CONTRIBUTION AGREEMENT, AND VICE VERSA, AND WILL RESULT IN AN EARLY REDEMPTION OF THE NOTES.

AS DESCRIBED IN THIS OFFERING MEMORANDUM, THE NOTES ARE LINKED TO THE CREDIT AND PRINCIPAL PAYMENT RISK OF CERTAIN RESIDENTIAL MORTGAGE LOANS BUT ARE NOT BACKED OR SECURED BY SUCH MORTGAGE LOANS. THE OCCURRENCE OF CERTAIN CREDIT EVENTS OR MODIFICATION EVENTS ON THESE MORTGAGE LOANS, AS DESCRIBED IN THIS OFFERING MEMORANDUM, WILL RESULT IN WRITE-DOWNS OF THE CLASS PRINCIPAL BALANCES OF THE NOTES TO THE EXTENT LOSSES ARE REALIZED ON SUCH MORTGAGE LOANS AS A RESULT OF THESE EVENTS. IN ADDITION, THE INTEREST ENTITLEMENT OF THE NOTES WILL BE SUBJECT TO REDUCTION BASED ON THE OCCURRENCE OF MODIFICATION EVENTS ON THESE MORTGAGE LOANS TO THE EXTENT LOSSES ARE REALIZED WITH RESPECT THERETO, AS FURTHER DESCRIBED HEREIN UNDER "*DESCRIPTION OF THE NOTES—HYPOTHETICAL STRUCTURE AND CALCULATIONS WITH RESPECT TO THE REFERENCE TRANCHE—ALLOCATION OF MODIFICATION LOSS AMOUNT.*" PURSUANT TO THE COLLATERAL ADMINISTRATION AGREEMENT, UPON THE OCCURRENCE OF ANY SUCH CREDIT EVENTS OR MODIFICATION EVENTS RESULTING IN ANY SUCH WRITE-DOWNS, THE ISSUER WILL BE REQUIRED TO PAY RETURN AMOUNTS TO FANNIE MAE IN THE AMOUNT OF THE AGGREGATE OF TRANCHE WRITE-DOWN AMOUNTS, IF ANY, ALLOCATED TO REDUCE THE CLASS PRINCIPAL BALANCES OF THE NOTES, WHICH SUCH PAYMENTS TO FANNIE MAE WILL BE SENIOR IN PRIORITY TO ANY PAYMENTS MADE ON THE NOTES. CONVERSELY, PURSUANT TO THE COLLATERAL ADMINISTRATION AGREEMENT, FANNIE MAE WILL BE OBLIGATED TO PAY TO THE ISSUER A RETURN REIMBURSEMENT AMOUNT IN AN AMOUNT EQUAL TO THE AGGREGATE OF TRANCHE WRITE-UP AMOUNTS, IF ANY, ALLOCATED TO INCREASE THE CLASS PRINCIPAL BALANCES OF THE NOTES.

THIS OFFERING MEMORANDUM CONTAINS SUBSTANTIAL INFORMATION ABOUT THE NOTES AND THE OBLIGATIONS OF THE ISSUER, THE INDENTURE TRUSTEE, THE EXCHANGE ADMINISTRATOR AND THE CUSTODIAN WITH RESPECT TO THE NOTES. POTENTIAL INVESTORS ARE URGED TO REVIEW THIS OFFERING MEMORANDUM IN ITS ENTIRETY.

PROSPECTIVE PURCHASERS ARE NOT TO CONSTRUE THE CONTENTS OF THIS OFFERING MEMORANDUM OR ANY PRIOR OR SUBSEQUENT COMMUNICATIONS FROM FANNIE MAE, THE INDENTURE TRUSTEE, THE EXCHANGE ADMINISTRATOR, AN INITIAL PURCHASER OR ANY OF THEIR RESPECTIVE OFFICERS, EMPLOYEES OR AGENTS AS INVESTMENT, LEGAL, ACCOUNTING OR TAX ADVICE. PRIOR TO INVESTING IN THE NOTES A PROSPECTIVE PURCHASER SHOULD

CONSULT WITH ITS ATTORNEYS AND ITS INVESTMENT, ACCOUNTING, REGULATORY AND TAX ADVISORS TO DETERMINE THE CONSEQUENCES OF AN INVESTMENT IN THE NOTES AND ARRIVE AT AN INDEPENDENT EVALUATION OF SUCH INVESTMENT, INCLUDING THE RISKS RELATED THERETO.

NO PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS OFFERING MEMORANDUM. THIS OFFERING MEMORANDUM DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITIES OTHER THAN THE NOTES. THIS OFFERING MEMORANDUM WILL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY, NOR WILL THERE BE ANY SALE OF THE NOTES, IN ANY STATE OR OTHER JURISDICTION IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF SUCH STATE OR OTHER JURISDICTION.

THE DELIVERY OF THIS OFFERING MEMORANDUM AT ANY TIME DOES NOT IMPLY THAT INFORMATION HEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO THE DATE OF THIS OFFERING MEMORANDUM OR THE EARLIER DATES REFERENCED HEREIN.

SUBJECT TO LIMITED EXCEPTIONS IN CONNECTION WITH THE INITIAL SALE OF THE NOTES, THE NOTES MAY BE SOLD ONLY (I) IN THE UNITED STATES TO QUALIFIED INSTITUTIONAL BUYERS WITHIN THE MEANING OF RULE 144A AND (II) IN OFFSHORE TRANSACTIONS TO PERSONS WHO ARE NOT "U.S. PERSONS" IN RELIANCE ON REGULATION S, IN EACH CASE UPON SATISFACTION OF CERTAIN PROVISIONS OF THIS OFFERING MEMORANDUM. SEE "*DISTRIBUTION ARRANGEMENTS — SELLING RESTRICTIONS*" IN THIS OFFERING MEMORANDUM. PROSPECTIVE INVESTORS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME.

THIS OFFERING MEMORANDUM HAS BEEN PREPARED BY FANNIE MAE SOLELY FOR USE IN CONNECTION WITH THE SALE OF THE NOTES.

FANNIE MAE IS IN CONSERVATORSHIP; POTENTIAL RECEIVERSHIP

FANNIE MAE CONTINUES TO OPERATE UNDER THE CONSERVATORSHIP THAT COMMENCED ON SEPTEMBER 6, 2008, CONDUCTING FANNIE MAE'S BUSINESS UNDER THE DIRECTION OF THE FEDERAL HOUSING FINANCE AGENCY ("**FHFA**") AS FANNIE MAE'S CONSERVATOR (THE "**CONSERVATOR**"). UPON ITS APPOINTMENT, FHFA, AS CONSERVATOR, IMMEDIATELY SUCCEEDED TO ALL RIGHTS, TITLES, POWERS AND PRIVILEGES OF FANNIE MAE AND OF ANY STOCKHOLDER, OFFICER OR DIRECTOR OF FANNIE MAE WITH RESPECT TO FANNIE MAE'S BUSINESS AND ASSETS. THE CONSERVATOR HAS DIRECTED AND WILL CONTINUE TO DIRECT CERTAIN OF FANNIE MAE'S BUSINESS ACTIVITIES AND STRATEGIES. UNDER THE HOUSING AND ECONOMIC RECOVERY ACT ("**HERA**"), FHFA MUST PLACE FANNIE MAE INTO RECEIVERSHIP IF THE DIRECTOR OF FHFA MAKES A DETERMINATION IN WRITING THAT FANNIE MAE'S ASSETS ARE, AND FOR A PERIOD OF 60 DAYS HAVE BEEN, LESS THAN FANNIE MAE'S OBLIGATIONS. FHFA HAS NOTIFIED FANNIE MAE THAT THE MEASUREMENT PERIOD FOR ANY MANDATORY RECEIVERSHIP DETERMINATION WITH RESPECT TO FANNIE MAE'S ASSETS AND OBLIGATIONS WOULD COMMENCE NO EARLIER THAN THE SEC PUBLIC FILING DEADLINE FOR FANNIE MAE'S QUARTERLY OR ANNUAL FINANCIAL STATEMENTS AND WOULD CONTINUE FOR 60 CALENDAR DAYS AFTER THAT DATE. FHFA HAS ALSO ADVISED FANNIE MAE THAT, IF, DURING THAT 60-DAY PERIOD, FANNIE MAE RECEIVES FUNDS FROM TREASURY IN AN AMOUNT AT LEAST EQUAL TO THE DEFICIENCY AMOUNT UNDER THE SENIOR PREFERRED STOCK PURCHASE AGREEMENT, THE DIRECTOR OF FHFA WILL NOT MAKE A MANDATORY RECEIVERSHIP DETERMINATION.

IN ADDITION, FANNIE MAE COULD BE PUT INTO RECEIVERSHIP AT THE DISCRETION OF THE DIRECTOR OF FHFA AT ANY TIME FOR OTHER REASONS, INCLUDING CONDITIONS THAT FHFA HAS ALREADY ASSERTED EXISTED AT THE TIME THE THEN DIRECTOR OF FHFA PLACED FANNIE MAE INTO CONSERVATORSHIP. THESE INCLUDE: A SUBSTANTIAL DISSIPATION OF ASSETS OR EARNINGS DUE TO UNSAFE OR UNSOUND PRACTICES; THE EXISTENCE OF AN UNSAFE OR

UN SOUND CONDITION TO TRANSACT BUSINESS; AN INABILITY TO MEET FANNIE MAE'S OBLIGATIONS IN THE ORDINARY COURSE OF BUSINESS; A WEAKENING OF FANNIE MAE'S CONDITION DUE TO UNSAFE OR UNSOUND PRACTICES OR CONDITIONS; CRITICAL UNDERCAPITALIZATION; THE LIKELIHOOD OF LOSSES THAT WILL DEplete SUBSTANTIALLY ALL OF FANNIE MAE'S CAPITAL; OR BY CONSENT. A RECEIVERSHIP WOULD TERMINATE THE CURRENT CONSERVATORSHIP.

IF FHFA WERE TO BECOME FANNIE MAE'S RECEIVER, IT COULD EXERCISE CERTAIN POWERS THAT COULD ADVERSELY AFFECT THE NOTES.

IN ITS CAPACITY AS RECEIVER, FHFA WOULD HAVE THE RIGHT TO TRANSFER OR SELL ANY ASSET OR LIABILITY OF FANNIE MAE, INCLUDING FANNIE MAE'S OBLIGATIONS UNDER THE COLLATERAL ADMINISTRATION AGREEMENT AND CAPITAL CONTRIBUTION AGREEMENT, WITHOUT ANY APPROVAL, ASSIGNMENT OR CONSENT OF ANY PARTY. IF FHFA, AS RECEIVER, WERE TO TRANSFER SUCH OBLIGATION TO ANOTHER PARTY, HOLDERS OF THE NOTES WOULD HAVE TO RELY ON THAT PARTY FOR SATISFACTION OF FANNIE MAE'S OBLIGATIONS THEREUNDER AND WOULD BE EXPOSED TO THE CREDIT RISK OF THAT PARTY.

DURING A RECEIVERSHIP, CERTAIN RIGHTS OF HOLDERS OF THE NOTES MAY NOT BE ENFORCEABLE AGAINST FHFA, OR ENFORCEMENT OF SUCH RIGHTS MAY BE DELAYED.

HERA ALSO PROVIDES THAT NO PERSON MAY EXERCISE ANY RIGHT OR POWER TO TERMINATE, ACCELERATE OR DECLARE AN EVENT OF DEFAULT UNDER CERTAIN CONTRACTS TO WHICH FANNIE MAE IS A PARTY, OR OBTAIN POSSESSION OF OR EXERCISE CONTROL OVER ANY PROPERTY OF FANNIE MAE, OR AFFECT ANY CONTRACTUAL RIGHTS OF FANNIE MAE, WITHOUT THE APPROVAL OF FHFA AS RECEIVER, FOR A PERIOD OF 90 DAYS FOLLOWING THE APPOINTMENT OF FHFA AS RECEIVER.

IMPORTANT NOTICE REGARDING THE NOTES

The Notes referred to in this Offering Memorandum are subject to modification or revision (including the possibility that one or more Classes of Notes may be split, combined or eliminated at any time prior to issuance or availability of a final Offering Memorandum), and the Notes are offered on a "when, as and if issued" basis. Each prospective investor understands that, when considering the purchase of the Notes, a contract of sale will come into being no sooner than the date on which the relevant Class of Notes has been priced and a confirmation of the allocation of Notes has been made to such prospective investor; any "indications of interest" expressed by a prospective investor, and any "soft circles" generated, will not create binding contractual obligations for a prospective investor, any Initial Purchaser or the Issuer.

Because the Notes are being offered on a "when, as and if issued" basis, any such contract will terminate, by its terms, without any further obligation or liability between you and the Issuer, if the Notes themselves, or the particular Class of Notes to which the contract relates, are not issued. Because the Notes are subject to modification or revision, any such contract also is conditioned upon the understanding that no material change will occur with respect to the relevant Class of Notes prior to the Closing Date. If a material change does occur with respect to a Class of Notes being purchased, then that change will cause the termination of the contract, by its terms, with a prospective investor to purchase the related Notes without any further obligation or liability between the prospective investor and Fannie Mae (an "**Automatic Termination**"). If an Automatic Termination occurs, Fannie Mae will provide a prospective investor with revised offering materials reflecting the material change and give the prospective investor an opportunity to purchase the related Class of Notes. In order for a prospective investor to indicate its interest in purchasing such Class, such prospective investor must communicate to Fannie Mae its desire to do so within such timeframe as may be designated in connection with such prospective investor's receipt of the revised offering materials.

If Fannie Mae or the Initial Purchasers determine that a condition is not satisfied in any material respect, prospective investors will be notified, and none of Fannie Mae, the Issuer or the Initial Purchasers will have any obligation to prospective investors to deliver any portions of the Notes that such prospective investors have committed to purchase, and there will be no liability between the Initial Purchasers, Fannie Mae, the Issuer or any of

their respective agents or affiliates, on the one hand, and prospective investors, on the other hand, as a consequence of the non-delivery.

The information contained in these materials may be based on assumptions regarding market conditions and other matters as reflected herein. No representation is made regarding the reasonableness of such assumptions or the likelihood that any such assumptions will coincide with actual market conditions or events, and these materials should not be relied upon for such purposes. The Initial Purchasers and their respective affiliates, officers, directors, partners and employees, including persons involved in the preparation or issuance of this Offering Memorandum, may from time to time have long or short positions in, and buy and sell, the securities mentioned herein or derivatives thereof (including options). In addition, the Initial Purchasers and their respective affiliates, officers, directors, partners and employees, including persons involved in the preparation or issuance of this Offering Memorandum, may have an investment or commercial banking relationship with Fannie Mae. See "*Risk Factors — The Interests of Fannie Mae, the Initial Purchasers and Others May Conflict With and Be Adverse to the Interests of the Noteholders — Potential Conflicts of Interest of the Initial Purchasers and their Affiliates*". Information in this Offering Memorandum is current only as of the date appearing on such material. Information in this Offering Memorandum regarding any Notes supersedes all prior information regarding such Notes. The Notes may not be suitable for all prospective investors.

TABULAR DATA REGARDING THE OFFERED NOTES, THE EXCHANGEABLE NOTES AND CERTAIN CERTIFICATES AND INTERESTS

**FANNIE MAE
CONNECTICUT AVENUE SECURITIES, SERIES 2020-R01**

| Class or Interest | Original Principal Balance (\$) | Expected Approximate Initial Credit Support (%) | Class Coupon ⁽¹⁾ | Expected Ratings (Fitch/KBRA) | Expected WAL (yrs) ⁽²⁾ | Expected Principal Payment Window (mos) ⁽²⁾ | Interest Accrual Basis | Maturity Date ⁽³⁾ | Class or Interest Type |
|-------------------------|---------------------------------|---|-----------------------------|-------------------------------|-----------------------------------|--|------------------------|------------------------------|------------------------|
| 1M-1 ^{*(4)} | \$303,085,000 | 2.85% | (5) | BBB-sf / BBB+ (sf) | 2.58 | 1 – 48 | Actual/360 | January 2040 | Mezzanine |
| 1M-2A ⁽⁴⁾⁽⁶⁾ | \$174,503,000 | 2.22% | (5) | BB+sf / BBB (sf) | 4.96 | 48 – 72 | Actual/360 | January 2040 | Mezzanine |
| 1M-2B ⁽⁴⁾⁽⁶⁾ | \$174,503,000 | 1.58% | (5) | BB-sf / BBB- (sf) | 6.77 | 72 – 84 | Actual/360 | January 2040 | Mezzanine |
| 1M-2C ⁽⁴⁾⁽⁶⁾ | \$174,503,000 | 0.95% | (5) | Bsf / BB (sf) | 7.01 | 84 – 84 | Actual/360 | January 2040 | Mezzanine |
| 1M-2 ^{*(6)} | \$523,509,000 | 0.95% | (5) | Bsf / BB (sf) | 6.25 | 48 – 84 | Actual/360 | January 2040 | RCR/ Mezzanine |
| 1B-1 ^{*(4)(6)} | \$206,648,000 | 0.20% | (5) | NR / NR | 7.01 | 84 – 84 | Actual/360 | January 2040 | Subordinate |
| X-IO ⁽⁷⁾ | (7) | | | | (7) | | | | Excess IO |
| R ⁽⁸⁾ | \$0 | | | | | | | | No Payment Residual |
| RL ⁽⁸⁾ | \$0 | | | | | | | | No Payment Residual |
| Total: | \$1,033,242,000** | | | | | | | | |

* Offered Notes.

** Including only Offered Notes.

(1) Each Class of Offered Notes will be sold at a price of par.

(2) Weighted average lives and principal payment windows with respect to the Notes assume that no Credit Events or Modification Events occur, prepayments occur at the pricing speed of 10% CPR (calculated from the Closing Date), the Notes pay on the 25th day of each month beginning in February 2020 and the Early Redemption Option is exercised on the Payment Date in January 2027.

(3) The Class Principal Balance of any outstanding Notes will be paid in full on the earlier to occur of the Early Redemption Date, if any, and the Maturity Date.

(4) The Class 1M-1 Notes, Class 1M-2A Notes, Class 1M-2B Notes, Class 1M-2C Notes and Class 1B-1 Notes will have corresponding Reference Tranches for the purpose of making calculations of payments required to be made by the Issuer and reductions and increases in the principal amounts of the Notes.

(5) See "Summary of Terms — Interest" herein.

(6) The Holders of the Class 1M-2 Notes may exchange all or part of that Class for proportionate interests in the Class 1M-2A, Class 1M-2B, and Class 1M-2C Notes, and vice versa. Additionally, the Holders of Class 1M-2A Notes, Class 1M-2B Notes, Class 1M-2C Notes, and/or Class 1B-1 Notes may exchange all or part of those Classes for proportionate interests in the RCR Notes in the applicable combinations set forth on Schedule I hereto, and vice versa. Certain Classes of related RCR Notes may further be exchanged for proportionate interests in other Classes of RCR Notes in the applicable combinations set forth on Schedule I hereto, and vice versa. Of the Exchangeable Notes and the RCR Notes, only the Class 1M-2 and the Class 1B-1 Notes are Offered Notes.

(7) The X-IO Interest will be an uncertificated interest issued by the Issuer and held by Fannie Mae. The X-IO Interest will have no principal balance and will represent the entitlement on any Payment Date to the excess, if any, of (i) the amount payable in respect of the IO Q-REMIC Interest for such Payment Date over (ii) the Transfer Amount for the related Remittance Date. The X-IO Interest is not offered under this Offering Memorandum.

(8) The Class R and Class RL Certificates, which will be issued by the Issuer and retained by Fannie Mae, will constitute residual interests under U.S. Treasury regulations. The Class R and Class RL Certificate are not offered under this Offering Memorandum.

FORWARD LOOKING STATEMENTS

This Offering Memorandum contains forward looking statements within the meaning of Section 27A of the Securities Act. Specifically, forward looking statements, together with related qualifying language and assumptions, are found in the material (including the tables) under the headings "*Risk Factors*" and "*Prepayment and Yield Considerations*" and in the appendices. Forward looking statements are also found in other places throughout this Offering Memorandum, and may be identified by, among other things, accompanying language such as "expects," "intends," "anticipates," "estimates" or analogous expressions, or by qualifying language or assumptions. These statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results or performance to differ materially from that described in or implied by the forward looking statements. These risks, uncertainties and other factors include, among others, general economic and business conditions, competition, changes in political, social and economic conditions, regulatory initiatives and compliance with governmental regulations, customer preference and various other matters, many of which are beyond Fannie Mae's control. These forward looking statements speak only as of the date of this Offering Memorandum. Fannie Mae expressly disclaims any obligation or undertaking to disseminate any updates or revisions to any forward looking statements to reflect changes in Fannie Mae's expectations with regard to those statements or any change in events, conditions or circumstances on which any forward looking statement is based.

FANNIE MAE

General

Fannie Mae is a government-sponsored enterprise that was chartered by Congress in 1938 to support liquidity, stability and affordability in the secondary mortgage market, where existing mortgage-backed assets are purchased and sold. The Federal National Mortgage Association Charter Act (the "**Charter Act**") does not permit Fannie Mae to originate loans or lend money directly to consumers in the primary mortgage market. Fannie Mae's most significant activity is securitizing mortgage loans originated by lenders into Fannie Mae's mortgage-backed securities that Fannie Mae guarantees. Fannie Mae also purchases mortgage loans and mortgage-backed securities. Fannie Mae has been securitizing mortgage loans since 1981. Fannie Mae has been the largest issuer of mortgage-related securities since 1990.

Fannie Mae obtains funds to purchase mortgage loans and mortgage-backed assets by issuing a variety of debt securities in the domestic and international capital markets.

As discussed below, Fannie Mae is currently in conservatorship.

Regulation and Conservatorship

FHFA is an independent agency of the federal government with general supervisory and regulatory authority over Fannie Mae, the Federal Home Loan Mortgage Corporation ("**Freddie Mac**") and the 12 Federal Home Loan Banks. FHFA was established in July 2008, assuming the duties of Fannie Mae's former safety and soundness regulator, the Office of Federal Housing Enterprise Oversight, and Fannie Mae's former mission regulator, the U.S. Department of Housing and Urban Development ("**HUD**"). HUD remains Fannie Mae's regulator with respect to fair lending matters. Fannie Mae's regulators also include the U.S. Securities and Exchange Commission ("**SEC**") and the U.S. Department of the Treasury ("**Treasury**").

On September 6, 2008, the Director of FHFA appointed FHFA as Fannie Mae's conservator pursuant to its authority under the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended by the Federal Housing Finance Regulatory Reform Act of 2008 and the Housing and Economic Recovery Act of 2008. Upon its appointment, FHFA immediately succeeded to all of the rights, titles, powers and privileges of Fannie Mae and those of any stockholder, officer or director of Fannie Mae with respect to Fannie Mae and its assets. The conservatorship is a statutory process designed to preserve and conserve Fannie Mae's assets and property and put the company in a sound and solvent condition.

The conservatorship has no specified termination date, and there continues to be uncertainty regarding the future of Fannie Mae, including how long Fannie Mae will continue to exist, the extent of Fannie Mae's role in the market, what form Fannie Mae will have, and what ownership interest in Fannie Mae, if any, will be held by its

current common and preferred stockholders after the conservatorship is terminated and whether Fannie Mae will continue to exist following conservatorship. For more information on the risks to Fannie Mae's business relating to the conservatorship and uncertainties regarding the future of Fannie Mae, please see, for example, "*Risk Factors — FHFA Could Terminate the Conservatorship by Placing Fannie Mae into Receivership, Which Could Adversely Affect Fannie Mae's Performance under the Collateral Administration Agreement and/or Capital Contribution Agreement*" and "*— Risks Relating to Fannie Mae*".

In September 2008, Fannie Mae, through FHFA as its conservator, entered into two agreements with Treasury — the Senior Preferred Stock Purchase Agreement (as amended, the "**Senior Preferred Stock Purchase Agreement**") and the warrant. Pursuant to the Senior Preferred Stock Purchase Agreement, Fannie Mae issued and sold to Treasury 1,000,000 shares of senior preferred stock with an initial liquidation preference of \$1,000 per share. The warrant allows Treasury to purchase, for a nominal price, shares of common stock equal to 79.9% of the outstanding common stock of Fannie Mae on a fully diluted basis.

The senior preferred stock and the warrant were issued to Treasury as an initial commitment fee in consideration of the commitment from Treasury to provide funds to Fannie Mae under the terms and conditions set forth in the Senior Preferred Stock Purchase Agreement. The Senior Preferred Stock Purchase Agreement provides that, on a quarterly basis, Fannie Mae generally may draw funds up to the amount, if any, by which Fannie Mae's total liabilities exceed its total assets, as reflected on its consolidated balance sheet, prepared in accordance with generally accepted accounting principles, for the applicable fiscal quarter. Under the terms of the Senior Preferred Stock Purchase Agreement, if Fannie Mae does not have a positive net worth or if its net worth does not exceed the applicable capital reserve amount as of the end of a fiscal quarter, then no dividend amount will accrue or be payable for the applicable dividend period. If Fannie Mae does not declare and pay a dividend in the full amount provided for in the senior preferred stock for any future dividend period, the capital reserve amount will thereafter be zero. On September 27, 2019, Treasury and Fannie Mae (through FHFA acting on Fannie Mae's behalf in its capacity as conservator) entered into a letter agreement (the "**September 2019 Letter Agreement**") increasing the applicable capital reserve amount to \$25.0 billion, effective September 30, 2019. As a result of this change, no dividend amount is payable for the third quarter of 2019 since Fannie Mae's net worth of \$6.4 billion as of June 30, 2019 is less than the \$25.0 billion capital reserve amount.

In the event Fannie Mae has a comprehensive loss for any future quarter, Fannie Mae may also have a net worth deficit for that quarter. Although Fannie Mae expects to remain profitable on an annual basis for the foreseeable future, the expected volatility in Fannie Mae's financial results, which may be significant from quarter to quarter, could result in a net worth deficit in a future quarter.

For any quarter for which Fannie Mae has a net worth deficit, Fannie Mae will be required to draw funds from Treasury under the Senior Preferred Stock Purchase Agreement in order to avoid being placed into receivership. As of the date of this Offering Memorandum, the maximum amount of remaining funding under the Senior Preferred Stock Purchase Agreement is \$113.9 billion. If Fannie Mae were to draw additional funds from Treasury under the Senior Preferred Stock Purchase Agreement in a future period, the amount of remaining funding under the Senior Preferred Stock Purchase Agreement would be reduced by the amount of Fannie Mae's draw. Dividend payments Fannie Mae makes to Treasury do not restore or increase the amount of funding available to Fannie Mae under the Senior Preferred Stock Purchase Agreement.

The Senior Preferred Stock Purchase Agreement and the warrant contain covenants that significantly restrict Fannie Mae's business activities. These covenants, which are summarized in Fannie Mae's 2018 10-K under the heading "*Business—Conservatorship and Treasury Agreements*," include a prohibition on the issuance of equity securities (except in limited instances), a prohibition on the payment of dividends or other distributions on Fannie Mae's equity securities (other than the senior preferred stock or the warrant), a prohibition on Fannie Mae's issuance of subordinated debt securities, and limitations on the amount of debt securities Fannie Mae may have outstanding and the size of its mortgage asset portfolio.

In September 2019, Treasury released a proposal for administrative and legislative reforms to end the conservatorship of Fannie Mae and Freddie Mac, to effect recapitalizations of the two enterprises, to place additional limitations on their permitted activities, and to effect widespread reform of the U.S. mortgage finance system. The September 2019 Letter Agreement increasing Fannie Mae's capital reserve amount represents a

significant step toward implementing the reforms outlined in Treasury's proposal. The September 2019 Letter Agreement also provides that Fannie Mae and Treasury agree to negotiate and execute an additional amendment to the Senior Preferred Stock Purchase Agreement to further enhance taxpayer protections by adopting covenants broadly consistent with recommendations for administrative reform contained in Treasury's proposal. In addition, the implementation of policy objectives asserted by the Director of FHFA could result in significant changes affecting Fannie Mae's conservatorship. See "*Risk Factors — Investment Factors and Risks Related to the Notes — Additional Governmental Actions in the U.S. and Abroad Could Adversely Affect the Market Value of the Notes.*"

For additional information, see "Business—Conservatorship and Treasury Agreements—Treasury Agreements—Senior Preferred Stock Purchase Agreement and Related Issuance of Senior Preferred Stock and Common Stock Warrant—Senior Preferred Stock Purchase Agreement" in Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2018.

Fannie Mae continues to rely on support from Treasury to eliminate any net worth deficits Fannie Mae may experience in the future, which would otherwise trigger Fannie Mae's being placed into receivership. Based on consideration of all of the relevant conditions and events affecting Fannie Mae's operations, including its dependence on the U.S. Government, Fannie Mae continues to operate as a going concern and in accordance with FHFA's provision of authority. Fannie Mae remains liable for all of Fannie Mae's obligations, including its contractual payment obligations under the Collateral Administration Agreement and the Capital Contribution Agreement. The Senior Preferred Stock Purchase Agreement is intended to enhance Fannie Mae's ability to meet its obligations. While the Senior Preferred Stock Purchase Agreement provides holders of Fannie Mae's debt securities limited rights to bring proceedings against Treasury if Fannie Mae fails to fulfill its payment obligations, Noteholders will not have the benefit of these rights as the Notes will not be debt obligations of Fannie Mae.

Possibility of Future Receivership

FHFA must place Fannie Mae into receivership if the Director of FHFA makes a written determination that Fannie Mae's assets are less than its obligations (i.e., a "net worth deficit") or if Fannie Mae has not been paying its debts, in either case, for a period of 60 days after the deadline for the filing with the SEC of Fannie Mae's annual report on Form 10-K or Fannie Mae's quarterly report on Form 10-Q, as applicable. Although Treasury committed to providing Fannie Mae with funds in accordance with the terms of the Senior Preferred Stock Purchase Agreement, Treasury may not provide these funds to Fannie Mae within the required 60 days if it has exhausted its borrowing authority or if there is a government shutdown. In addition, Fannie Mae could be put into receivership at the discretion of the Director of FHFA at any time for other reasons, including conditions that FHFA has already asserted existed at the time the former Director of FHFA placed Fannie Mae into conservatorship.

A receivership would terminate the conservatorship. Unlike a conservatorship, the purpose of which is to conserve Fannie Mae's assets and return Fannie Mae to a sound and solvent condition, the purpose of a receivership is to liquidate Fannie Mae's assets and resolve claims against Fannie Mae.

See "*Risk Factors — Special Risks Associated with the Collateral Administration Agreement and the Capital Contribution Agreement — FHFA Could Terminate the Conservatorship by Placing Fannie Mae into Receivership, Which Could Adversely Affect Fannie Mae's Performance under the Collateral Administration Agreement and the Capital Contribution Agreement*" in this Offering Memorandum.

NOTICE TO EUROPEAN ECONOMIC AREA INVESTORS

THIS OFFERING MEMORANDUM IS NOT A PROSPECTUS FOR THE PURPOSES OF REGULATION (EU) 2017/1129 (AS AMENDED, THE "**PROSPECTUS REGULATION**"). THE NOTES ARE NOT INTENDED TO BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO AND SHOULD NOT BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO ANY RETAIL INVESTOR IN THE EUROPEAN ECONOMIC AREA ("**EEA**"). FOR THESE PURPOSES, A RETAIL INVESTOR MEANS A PERSON WHO IS ONE (OR MORE) OF: (A) A RETAIL CLIENT AS DEFINED IN POINT (11) OF ARTICLE 4(1) OF DIRECTIVE 2014/65/EU (AS AMENDED, "**MIFID II**"); (B) A CUSTOMER WITHIN THE MEANING OF DIRECTIVE (EU) 2016/97 (AS AMENDED), WHERE THAT CUSTOMER WOULD NOT QUALIFY AS A PROFESSIONAL CLIENT AS DEFINED IN POINT (10) OF ARTICLE 4(1) OF MIFID II; OR (C) NOT A QUALIFIED INVESTOR AS DEFINED IN THE PROSPECTUS REGULATION (AS DEFINED BELOW). CONSEQUENTLY NO KEY INFORMATION DOCUMENT REQUIRED BY REGULATION (EU) NO 1286/2014 (AS AMENDED, THE "**PRIIPS REGULATION**") FOR OFFERING OR SELLING THE NOTES OR OTHERWISE MAKING THEM AVAILABLE TO RETAIL INVESTORS IN THE EEA HAS BEEN PREPARED AND THEREFORE OFFERING OR SELLING THE NOTES OR OTHERWISE MAKING THEM AVAILABLE TO ANY RETAIL INVESTOR IN THE EEA MAY BE UNLAWFUL UNDER THE PRIIPS REGULATION.

THIS OFFERING MEMORANDUM HAS BEEN PREPARED ON THE BASIS THAT ANY OFFER OF NOTES IN THE EEA WILL BE MADE ONLY TO LEGAL ENTITIES WHICH ARE QUALIFIED INVESTORS UNDER THE PROSPECTUS REGULATION. ACCORDINGLY ANY PERSON MAKING OR INTENDING TO MAKE AN OFFER IN THE EEA OF NOTES MAY DO SO ONLY WITH RESPECT TO QUALIFIED INVESTORS. NONE OF THE ISSUER OR ANY OF THE INITIAL PURCHASERS HAS AUTHORIZED, NOR DOES ANY OF THEM AUTHORIZE, THE MAKING OF ANY OFFER OF NOTES IN THE EEA OTHER THAN TO QUALIFIED INVESTORS.

EUROPEAN RISK RETENTION AND DUE DILIGENCE

IN CONNECTION WITH REGULATION (EU) 2017/2402 (THE "**SECURITIZATION REGULATION**"), REGULATORY AND IMPLEMENTING TECHNICAL STANDARDS APPLICABLE THERETO AND GUIDELINES AND OTHER MATERIALS PUBLISHED BY THE EUROPEAN BANKING AUTHORITY, THE EUROPEAN SECURITIES AND MARKETS AUTHORITY AND THE EUROPEAN COMMISSION IN RELATION THERETO (COLLECTIVELY, THE "**EUROPEAN SECURITIZATION RULES**"), FANNIE MAE WILL UNDERTAKE IN THE EUROPEAN RISK RETENTION LETTER THAT AMONG OTHER THINGS IT (I) WILL RETAIN A MATERIAL NET ECONOMIC INTEREST IN THE UNDERLYING EXPOSURE RELATED TO THIS NOTES ISSUANCE TRANSACTION OF NOT LESS THAN 5% AND (II) WILL NOT SUBJECT SUCH RETAINED INTEREST OR THE REFERENCE OBLIGATIONS TO ANY CREDIT RISK MITIGATION OR HEDGING OR SELL, TRANSFER OR OTHERWISE SURRENDER ALL OR PART OF SUCH RETAINED INTEREST, EXCEPT TO THE EXTENT PERMITTED IN ACCORDANCE WITH THE EUROPEAN SECURITIZATION RULES. EACH PROSPECTIVE INVESTOR IN THE NOTES IS REQUIRED TO INDEPENDENTLY ASSESS AND DETERMINE ANY APPLICATION OF THE EUROPEAN SECURITIZATION RULES TO IT AND THE SUFFICIENCY FOR THE PURPOSES OF ENABLING SUCH INVESTOR TO COMPLY WITH THE EUROPEAN SECURITIZATION RULES WHERE APPLICABLE OF THE INFORMATION DESCRIBED UNDER "*EUROPEAN SECURITIZATION RULES*" AND IN THIS OFFERING MEMORANDUM GENERALLY. SEE "*EUROPEAN SECURITIZATION RULES*" AND "*RISK FACTORS — INVESTMENT FACTORS AND RISKS RELATED TO THE NOTES — ADDITIONAL GOVERNMENTAL ACTIONS IN THE U.S. AND ABROAD COULD ADVERSELY AFFECT THE MARKET VALUE OF THE NOTES*".

NOTICE TO UNITED KINGDOM INVESTORS

WITHIN THE UNITED KINGDOM, THE DISTRIBUTION OF THIS OFFERING MEMORANDUM IS DIRECTED ONLY AT PERSONS WHO HAVE PROFESSIONAL EXPERIENCE IN MATTERS RELATING TO INVESTMENTS AND WHO EITHER (A) QUALIFY AS INVESTMENT PROFESSIONALS IN ACCORDANCE WITH ARTICLE 19(5) OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (FINANCIAL PROMOTION) ORDER 2005 (THE "**FPO**"), (B) ARE PERSONS FALLING WITHIN ARTICLE

49(2) OF THE FPO, OR (C) ARE PERSONS WHO MAY OTHERWISE LAWFULLY RECEIVE THIS OFFERING MEMORANDUM (TOGETHER, "**EXEMPT PERSONS**"). IT MAY NOT BE PASSED ON EXCEPT TO EXEMPT PERSONS OR OTHER PERSONS IN CIRCUMSTANCES IN WHICH SECTION 21(1) OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (AS AMENDED) DOES NOT APPLY TO THE ISSUER (ALL SUCH PERSONS TOGETHER BEING REFERRED TO AS "**RELEVANT PERSONS**"). IN THE UNITED KINGDOM, THIS OFFERING MEMORANDUM MUST NOT BE ACTED ON OR RELIED ON BY PERSONS WHO ARE NOT RELEVANT PERSONS. IN THE UNITED KINGDOM, ANY INVESTMENT OR INVESTMENT ACTIVITY TO WHICH THIS OFFERING MEMORANDUM RELATES, INCLUDING THE NOTES, IS AVAILABLE ONLY TO RELEVANT PERSONS AND WILL BE ENGAGED IN ONLY WITH RELEVANT PERSONS. ANY PERSONS OTHER THAN RELEVANT PERSONS SHOULD NOT ACT OR RELY ON THIS OFFERING MEMORANDUM.

POTENTIAL INVESTORS IN THE UNITED KINGDOM ARE ADVISED THAT ALL, OR MOST, OF THE PROTECTIONS AFFORDED BY THE UNITED KINGDOM REGULATORY SYSTEM WILL NOT APPLY TO AN INVESTMENT IN THE NOTES AND THAT COMPENSATION WILL NOT BE AVAILABLE UNDER THE UNITED KINGDOM FINANCIAL SERVICES COMPENSATION SCHEME.

SINGAPORE EXCHANGE

SUBSEQUENT TO ISSUANCE OF THE NOTES, FANNIE MAE INTENDS TO APPLY TO THE SINGAPORE EXCHANGE SECURITIES TRADING LIMITED (THE "**SINGAPORE EXCHANGE**") FOR THE NOTES TO BE LISTED ON THE SINGAPORE EXCHANGE. FOLLOWING ANY SUCH APPLICATION, THERE CAN BE NO ASSURANCE THAT SUCH LISTING WILL BE GRANTED OR MAINTAINED. SUCH PERMISSION WILL BE GRANTED WHEN THE NOTES HAVE BEEN ADMITTED TO THE OFFICIAL LIST OF THE SINGAPORE EXCHANGE. THE SINGAPORE EXCHANGE ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS OF ANY OF THE STATEMENTS MADE, OPINIONS EXPRESSED OR REPORTS CONTAINED HEREIN. ADMISSION TO THE OFFICIAL LIST OF THE SINGAPORE EXCHANGE IS NOT TO BE TAKEN AS AN INDICATION OF FANNIE MAE'S MERITS OR THE MERITS OF FANNIE MAE'S SUBSIDIARIES, ASSOCIATED COMPANIES OR THE NOTES.

FOR SO LONG AS THE NOTES ARE LISTED ON THE SINGAPORE EXCHANGE AND THE RULES OF THE SINGAPORE EXCHANGE SO REQUIRE, IN THE EVENT THAT THE BOOK-ENTRY NOTES ARE EXCHANGED FOR DEFINITIVE NOTES, FANNIE MAE WILL APPOINT AND MAINTAIN A PAYING AGENT IN SINGAPORE, WHERE THE DEFINITIVE NOTES MAY BE PRESENTED OR SURRENDERED FOR PAYMENT OR REDEMPTION. IN ADDITION, IN THE EVENT THAT THE BOOK-ENTRY NOTES ARE EXCHANGED FOR DEFINITIVE NOTES, AN ANNOUNCEMENT OF SUCH EXCHANGE WILL BE MADE BY OR ON BEHALF OF FANNIE MAE THROUGH THE SINGAPORE EXCHANGE AND SUCH ANNOUNCEMENT WILL INCLUDE ALL MATERIAL INFORMATION WHICH RESPECT TO THE DELIVERY OF THE DEFINITIVE NOTES, INCLUDING DETAILS OF THE PAYING AGENT IN SINGAPORE.

FOR SO LONG AS THE NOTES ARE LISTED ON THE SINGAPORE EXCHANGE AND THE RULES OF THE SINGAPORE EXCHANGE SO REQUIRE, THE NOTES WILL BE TRADED ON THE SINGAPORE EXCHANGE IN A MINIMUM BOARD LOT SIZE OF S\$200,000.

SECTION 309B(1)(c) NOTIFICATION: THE NOTES WILL BE (A) CAPITAL MARKETS PRODUCTS OTHER THAN PRESCRIBED CAPITAL MARKETS PRODUCTS (AS DEFINED IN THE SINGAPORE SECURITIES AND FUTURES (CAPITAL MARKETS PRODUCTS) REGULATIONS 2018) AND (B) SPECIFIED INVESTMENT PRODUCTS (AS DEFINED IN MAS NOTICE SFA 04-N12: NOTICE ON THE SALE OF INVESTMENT PRODUCTS AND MAS NOTICE FAA-N16: NOTICE ON RECOMMENDATIONS ON INVESTMENT PRODUCTS).

JAPAN

THE NOTES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE FINANCIAL INSTRUMENTS AND EXCHANGE LAW OF JAPAN, AS AMENDED (THE "**FIEL**"), AND DISCLOSURE UNDER THE FIEL HAS NOT BEEN AND WILL NOT BE MADE WITH RESPECT TO THE NOTES.

ACCORDINGLY, EACH INITIAL PURCHASER HAS REPRESENTED AND AGREED THAT IT HAS NOT, DIRECTLY OR INDIRECTLY, OFFERED OR SOLD AND WILL NOT, DIRECTLY OR INDIRECTLY, OFFER OR SELL ANY NOTES IN JAPAN OR TO, OR FOR THE BENEFIT OF, ANY RESIDENT OF JAPAN (WHICH TERM AS USED IN THIS OFFERING MEMORANDUM MEANS ANY PERSON RESIDENT IN JAPAN, INCLUDING ANY CORPORATION OR OTHER ENTITY ORGANIZED UNDER THE LAWS OF JAPAN) OR TO OTHERS FOR REOFFERING OR RE-SALE, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO, OR FOR THE BENEFIT OF, ANY RESIDENT OF JAPAN EXCEPT PURSUANT TO AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF, AND OTHERWISE IN COMPLIANCE WITH, THE FIEL AND OTHER RELEVANT LAWS, REGULATIONS AND MINISTERIAL GUIDELINES OF JAPAN. AS PART OF THIS OFFERING OF THE OFFERED NOTES, THE INITIAL PURCHASERS MAY OFFER THE OFFERED NOTES IN JAPAN TO UP TO 49 OFFEREEES IN ACCORDANCE WITH THE ABOVE PROVISIONS.

JAPANESE RETENTION REQUIREMENT

THE JAPANESE FINANCIAL SERVICES AGENCY ("**JFSA**") PUBLISHED A RISK RETENTION RULE AS PART OF THE REGULATORY CAPITAL REGULATION OF CERTAIN CATEGORIES OF JAPANESE INVESTORS SEEKING TO INVEST IN SECURITIZATION TRANSACTIONS (THE "**JRR RULE**"). THE JRR RULE MANDATES AN "INDIRECT" COMPLIANCE REQUIREMENT, MEANING THAT CERTAIN CATEGORIES OF JAPANESE INVESTORS WILL BE REQUIRED TO APPLY HIGHER RISK WEIGHTING TO SECURITIZATION EXPOSURES THEY HOLD UNLESS THE RELEVANT ORIGINATOR COMMITS TO HOLD A RETENTION INTEREST IN THE SECURITIES ISSUED IN THE SECURITIZATION TRANSACTION EQUAL TO AT LEAST 5% OF THE EXPOSURE OF THE TOTAL UNDERLYING ASSETS IN THE SECURITIZATION TRANSACTION (THE "**JAPANESE RETENTION REQUIREMENT**"), OR SUCH INVESTORS DETERMINE THAT THE UNDERLYING ASSETS WERE NOT "INAPPROPRIATELY ORIGINATED." IN THE ABSENCE OF SUCH A DETERMINATION BY SUCH INVESTORS THAT SUCH UNDERLYING ASSETS WERE NOT "INAPPROPRIATELY ORIGINATED," THE JAPANESE RETENTION REQUIREMENT WOULD APPLY TO AN INVESTMENT BY SUCH INVESTORS IN SUCH SECURITIES.

NO PARTY TO THE TRANSACTION DESCRIBED IN THIS OFFERING MEMORANDUM HAS COMMITTED TO HOLD A RISK RETENTION INTEREST IN COMPLIANCE WITH THE JAPANESE RETENTION REQUIREMENT, AND WE MAKE NO REPRESENTATION AS TO WHETHER THE TRANSACTION DESCRIBED IN THIS OFFERING MEMORANDUM WOULD OTHERWISE COMPLY WITH THE JRR RULE.

ADDITIONAL INFORMATION

Fannie Mae's common stock is registered with the SEC under the Securities Exchange Act of 1934 ("**Exchange Act**"). Fannie Mae files reports and other information with the SEC.

As described below, Fannie Mae incorporates certain documents by reference in this Offering Memorandum, which means that Fannie Mae is disclosing information to you by referring you to those documents rather than by providing you with separate copies. Fannie Mae incorporates by reference in this Offering Memorandum (1) its Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on February 14, 2019; (2) its Quarterly Report on Form 10-Q for the period ended on September 30, 2019, filed with the SEC on October 31, 2019; (3) all other reports Fannie Mae has filed with the SEC pursuant to Section 13(a) of the Exchange Act since the end of the year covered by that Form 10-K report, excluding any information Fannie Mae "furnishes" to the SEC on Form 8-K; and (4) all documents that Fannie Mae files with the SEC pursuant to Section 13(a), 13(c) or 14 of the Exchange Act after the date of this Offering Memorandum and prior to the termination of the offering of the Notes, excluding any information Fannie Mae "furnishes" to the SEC on Form 8-K. These documents are collectively referred to as the "**Incorporated Documents**" and are considered part of this Offering Memorandum. You should read this Offering Memorandum in conjunction with the Incorporated Documents. Information that Fannie Mae incorporates by reference will automatically update information in this Offering Memorandum. Therefore, you should rely only on the most current information provided or incorporated by reference in this Offering Memorandum. No documents incorporated by reference are part of this Offering Memorandum for purposes of the admission of the Notes to trading on the Global Exchange Market.

You may read and copy any document Fannie Mae files with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC also maintains a website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding companies that file electronically with the SEC.

After the Closing Date, you can obtain, without charge, copies of this Offering Memorandum, the Incorporated Documents, the Collateral Administration Agreement, the Capital Contribution Agreement, the Indenture, the Trust Agreement and the European Risk Retention Letter from:

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|--|
| <p>Fannie Mae — Investor Inquiry 1100 15th Street, NW Washington, DC 20005 Telephone: 1-800-232-6643</p> |
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Fannie Mae also makes these documents available on its internet website at this address:
www.fanniemae.com*

In addition, such documents will be made available on the internet website of the Indenture Trustee, located as of the date hereof at **www.ctslink.com**.

Fannie Mae also makes available on its internet website certain pool- and loan-level information regarding each of the mortgage loans backing its MBS, and will make available comparable information regarding the mortgage loans included in the Reference Pool, based on information furnished to Fannie Mae by the loan sellers and servicers of the mortgage loans. Certain pool- or loan-level information provided in this Offering Memorandum, similarly, is based upon information reported and furnished to Fannie Mae by loan sellers and servicers of the mortgage loans. Fannie Mae generally does not independently verify information furnished to it by loan sellers and servicers

* Fannie Mae provides this and other internet addresses solely for the information of investors. Fannie Mae does not intend these internet addresses to be active links and Fannie Mae is not using references to these addresses to incorporate additional information into this Offering Memorandum, except as specifically stated in this Offering Memorandum.

An investor may access the Selling Guide (as defined in this Offering Memorandum) at <https://www.fanniemae.com/content/guide/selling/>.
An investor may access the Servicing Guide (as defined in this Offering Memorandum) at <https://www.fanniemae.com/content/guide/servicing/index.html>.

regarding the mortgage loans and make no representations or warranties concerning the accuracy or completeness of that information. In addition, loan sellers sometimes provide information about certain mortgage loans that they sell to Fannie Mae in separate additional supplements ("**Additional Supplements**"). Fannie Mae has not verified the information in Additional Supplements and makes no representations or warranties concerning the accuracy or completeness of that information.

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TRANSACTION SUMMARY

On the Closing Date, the Issuer expects to issue the Class 1M-1 Notes, the Class 1M-2 Notes and the Class 1B-1 Notes (the "**Offered Notes**"), which will represent non-recourse debt obligations of the Issuer. The Holders of Class 1M-2 Notes may exchange all or part of that Class for proportionate interests in the Class 1M-2A, Class 1M-2B and Class 1M-2C Notes, and vice versa. The Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes are collectively referred to as the "**Exchangeable Notes**". Additionally, the Holders of Class 1M-2A Notes, Class 1M-2B Notes, Class 1M-2C Notes and/or Class 1B-1 Notes may exchange all or part of those Classes for proportionate interests in the Classes of "Related Combinable and Recombinable Notes" (the "**RCR Notes**") in the applicable combinations set forth on Schedule I, and vice versa. Certain Classes of related RCR Notes may further be exchanged for proportionate interests in other Classes of RCR Notes in the applicable combinations set forth on Schedule I, and vice versa. The Offered Notes and the other Exchangeable Notes and RCR Notes are collectively referred to as the "**Notes**". As further described below, the Notes will be subject to the credit and principal prepayment risk of the related portion of a certain pool (the "**Reference Pool**") of residential mortgage loans (the "**Reference Obligations**"), with an aggregate unpaid principal balance as of November 30, 2019 (the "**Cut-off Date**") of approximately \$29,003,350,855 (the "**Reference Pool Cut-off Date Balance**").

The Reference Obligations are evidenced by promissory notes or other similar evidences of indebtedness (each, a "**mortgage note**"), each of which is secured by a first mortgage, deed of trust or similar security instrument (each, a "**mortgage**" or "**mortgage loan**") on residential properties consisting of one- to four-family dwelling units, townhouses, individual condominium units, individual units in planned unit developments, individual co-operative units or manufactured homes (each, a "**mortgaged property**"). Each mortgage note and related mortgage loan is the obligation of one or more borrowers (collectively, a "**borrower**") and require the related borrower to make monthly payments of principal and interest. The Reference Obligations were acquired by Fannie Mae between October 1, 2018 and August 31, 2019 and securitized into Fannie Mae's Guaranteed Mortgage Pass-Through Certificates ("**MBS**") and meet the additional Eligibility Criteria described under "*Summary of Terms — The Reference Pool*". The Notes will be subject to write-down of their Class Principal Balances based on the occurrence of Credit Events or Modification Events with respect to the Reference Obligations, as described in this Offering Memorandum. In addition, the interest entitlement of the Notes may be subject to reduction based on the occurrence of Modification Events with respect to the Reference Obligations, as described in this Offering Memorandum. See "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches*." In addition, the amount of principal required to be paid by the Issuer on the Notes on each Payment Date will be based on the principal payment experience of the Reference Obligations.

This transaction is structured to afford investors pass-through economic exposure to the Reference Obligations and provide Fannie Mae reimbursement for specified losses it incurs with respect to Reference Obligations that experience losses relating to Credit Events and Modification Events.

On the Closing Date, the Issuer will enter into the Collateral Administration Agreement with Fannie Mae and the Indenture Trustee. The Collateral Administration Agreement will provide that, on each Remittance Date, (a) Fannie Mae will pay to the Issuer, by deposit into the Note Distribution Account, (i) the Transfer Amount for such Payment Date, it being understood that the Trust Estate Yield for the related Payment Date will be deemed to satisfy, up to the amount of such Trust Estate Yield, Fannie Mae's Transfer Amount payment obligation for such Remittance Date and (ii) the Return Reimbursement Amount, if any, for such Remittance Date; and (b) the Issuer will pay to Fannie Mae the Return Amount, if any, for such Remittance Date, in each case subject to the satisfaction of certain conditions as described in this Offering Memorandum.

In addition, on the Closing Date, the Issuer, Fannie Mae (as "**Capital Contribution Provider**") and the Indenture Trustee will enter into the Capital Contribution Agreement, pursuant to which the Capital Contribution Provider (or an assignee thereof) will be required to pay Capital Contribution Amounts to the Issuer.

Following the occurrence of certain trigger events under one or both of the Collateral Administration Agreement and/or the Capital Contribution Agreement, both agreements may terminate concurrently on the CAA Termination Date and the Notes will be subject to an early redemption.

The Issuer will be obligated to make monthly payments of accrued interest and monthly payments of principal to the Noteholders.

The sources of payments on the Notes consist of investment earnings and liquidation proceeds of short-term, liquid investments (i.e., Eligible Investments) held in a securities account (the "**Cash Collateral Account**"), amounts received by the Issuer under the Collateral Administration Agreement and the Capital Contribution Agreement, and certain interest amounts received in respect of REMIC interests (i.e., the Designated Q-REMIC Interests) issued by separate REMIC trusts previously established by Fannie Mae and assigned by Fannie Mae to the Issuer as further described in this Offering Memorandum. See "*The Agreements — The Collateral Administration Agreement*," "*— The Capital Contribution Agreement*" and "*— The Indenture*" in this Offering Memorandum.

The Cash Collateral Account will be maintained by the Custodian. Cash held in the Cash Collateral Account will be invested only in Eligible Investments. The Investment Agent will promptly after the Closing Date invest proceeds from the sale of the Notes in Eligible Investments and will cause such Eligible Investments to be credited to the Cash Collateral Account. Pursuant to the Investment Agency Agreement, the Investment Agent will direct the Custodian to invest amounts held in the Cash Collateral Account in Eligible Investments, which investments will mature not later than the related Remittance Date and must qualify as "cash flow investments" within the meaning of Treasury Regulation section 1.860G-2(g)(1). All such Eligible Investments will be made in the name of the Indenture Trustee for the benefit of the Secured Parties.

Proceeds of the liquidation of Eligible Investments will be used to pay any Return Amounts due to Fannie Mae and, to the extent available after payment of such Return Amounts, will be deposited in the Note Distribution Account for payment to Noteholders. In addition, Transfer Amounts, Capital Contribution Amounts and Return Reimbursement Amounts, if any, will be deposited in the Note Distribution Account and will be available for payment to Noteholders, as described in this Offering Memorandum.

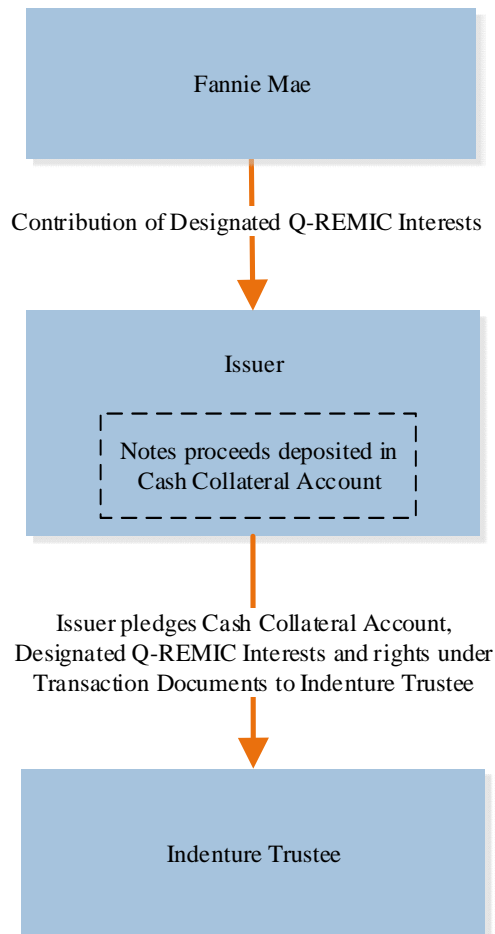
For the avoidance of doubt, the Notes are not secured or backed by the Reference Obligations and, except in respect of the Designated Q-REMIC Interests, the actual cash flows from the Reference Obligations will not be paid or otherwise made available to the holders of the Notes (each, a "**Holder**" or "**Noteholder**" and, collectively, the "**Holders**" or "**Noteholders**"). Interest and principal will be paid on the Notes by the Issuer solely from assets of the Issuer after making any payments owed to Fannie Mae. However, because the principal balances of the Notes will be subject to the Credit Events, Modification Events and prepayment risks related to the Reference Obligations, each investor in the Notes should review and understand all the information in this Offering Memorandum and information otherwise made available to such investor as if it were investing in securities backed by such Reference Obligations. If Credit Events or Modification Events on the Reference Obligations cause losses to be allocated to a Class or Classes of Reference Tranches, the Class Principal Balance(s) of the related Class or Classes of Notes will be written down on the related Payment Date by a Tranche Write-down Amount equal to such allocated losses. On any such Payment Date, Fannie Mae will be entitled to receive Return Amounts equal to the aggregate amount of Tranche Write-down Amounts, which amounts will be unavailable for making future payments on the Notes. Fannie Mae will be obligated to pay the Issuer the Return Reimbursement Amounts equal to the aggregate Tranche Write-up Amounts, if any, allocated to increase the Class Principal Balances of the applicable outstanding Classes of Notes on the related Payment Date (without regard to any exchanges of Exchangeable Notes for any RCR Notes).

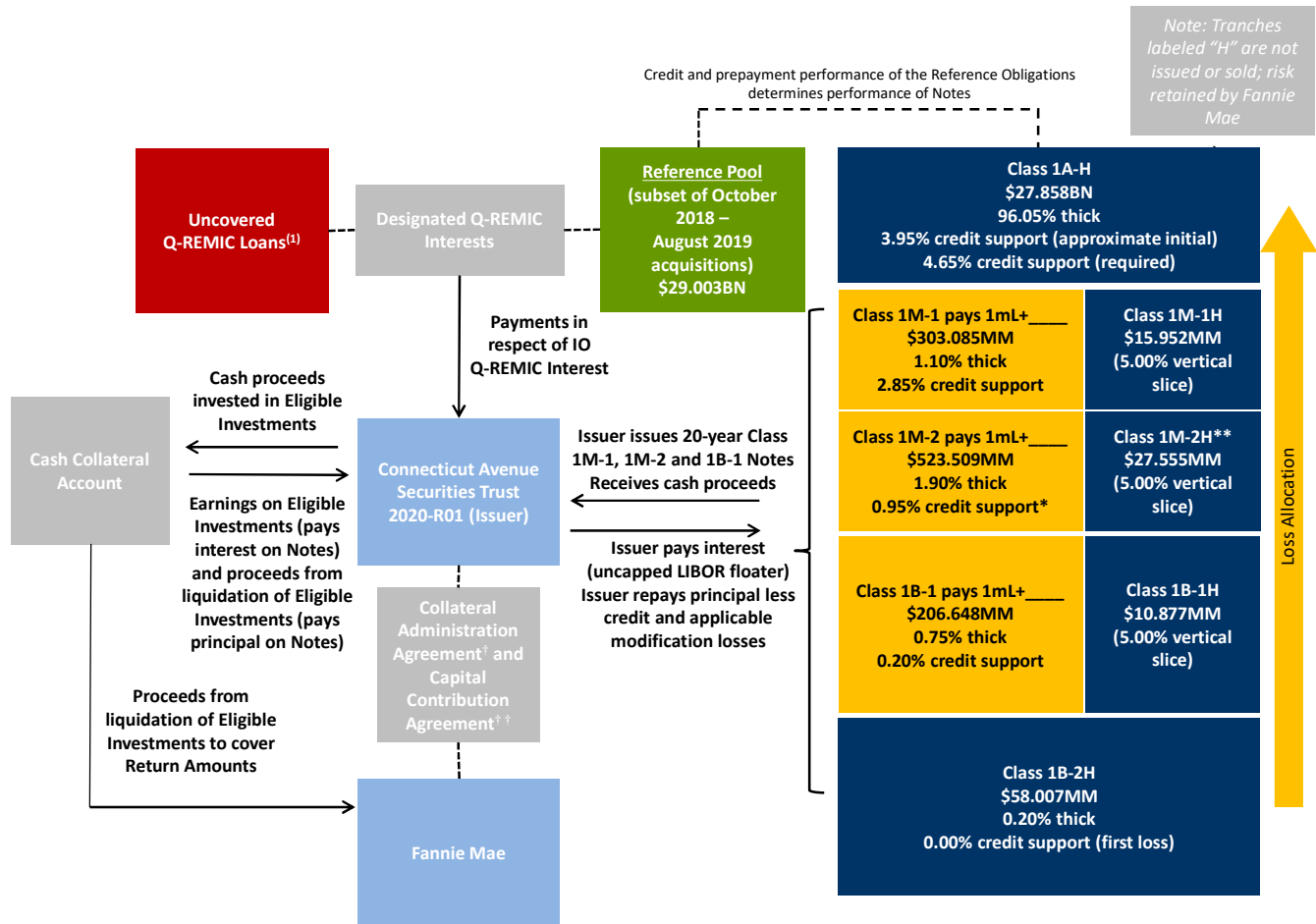
Solely for purposes of making the calculations for each Payment Date of (i) any principal write-downs (or write-ups) on the Notes as a result of Credit Events (or reversals thereof) or Modification Events on the Reference Obligations, (ii) any reduction or increase in interest amounts as a result of Modification Events on the Reference Obligations and (iii) principal payments required to be made on the Notes by the Issuer, a hypothetical structure of reference tranches (each, a "**Reference Tranche**") deemed to be backed by the Reference Obligations has been established as set forth in the table below. See "*Summary of Terms — Hypothetical Structure and Calculations with Respect to the Reference Tranches*" below.

Transaction Diagrams

For illustrative purposes, described below is a hypothetical structure consisting of the Reference Tranches. The principal payments by the Issuer to the holders of the Class 1M-1, Class 1M-2 and Class 1B-1 Notes will be based on the Class Notional Amounts of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Reference Tranches that are included in the hypothetical structure. Accordingly, principal payments on the Reference Obligations that are hypothetically allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Reference Tranches will be paid to Holders of the Class 1M-1, Class 1M-2 (with allocations among the Class 1M-2A, Class 1M-2B and Class 1M-2C Reference Tranches to be made as described in this Offering Memorandum) and Class 1B-1 Notes, respectively. Similarly, in the event the Class Notional Amounts of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Reference Tranches are written down or increased as described herein, the Class Principal Balances of the Class 1M-1, Class 1M-2 (with allocations among the Class 1M-2A, Class 1M-2B and Class 1M-2C Reference Tranches to be made as described in this Offering Memorandum) and Class 1B-1 Notes, respectively, will also be written down or increased, as applicable.

Closing Date Transactions





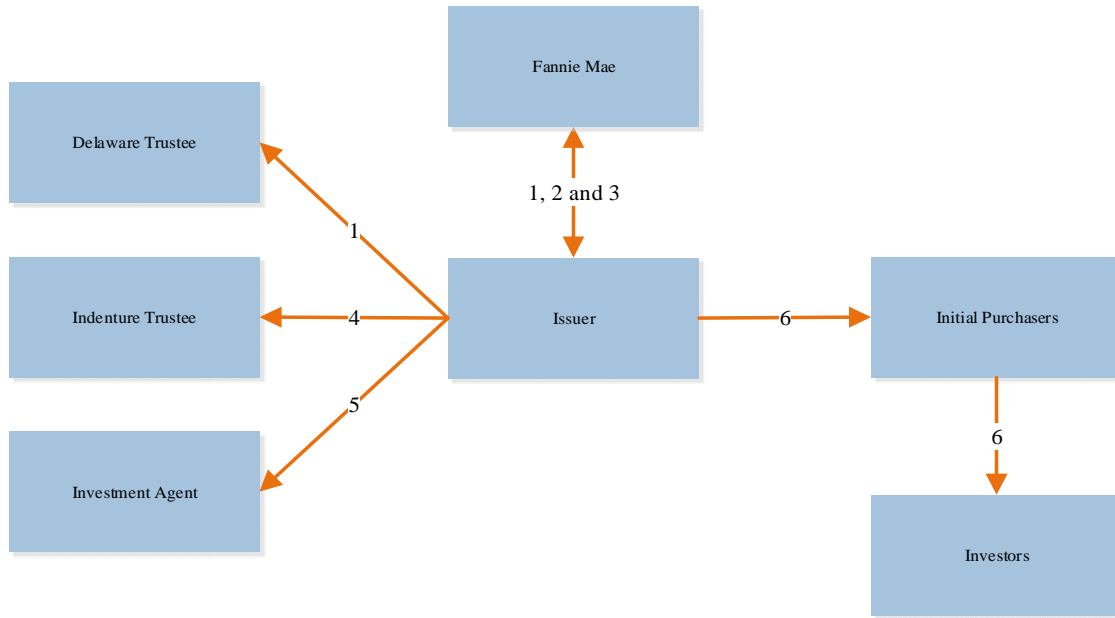
(1) "Uncovered Q-REMIC Loans" represents a portion of the loans that were pooled in various Fannie Mae MBS trusts established in October 2018 that made REMIC elections. Such loans either (x) did not meet the Eligibility Criteria at time of acquisition and/or the Cut-Off Date or (y) would meet the Eligibility Criteria but were included in a previous Fannie Mae risk sharing transaction or are expected to be included in an alternative Fannie Mae risk sharing transaction. In no event will an Uncovered Q-REMIC Loan be a Reference Obligation or an uncovered Q-REMIC loan in any other Fannie Mae REMIC risk sharing transaction.

† Provides for (i) payment by Fannie Mae of Transfer Amounts (to the extent not otherwise paid from the IO Q-REMIC Interest) and any Return Reimbursement Amounts to the Issuer and (ii) payment by Issuer of Return Amounts to Fannie Mae.
 †† Provides for payment by Fannie Mae of Capital Contribution Amounts to the Issuer.

Transfer Amounts are paid through to Holders in respect of interest on the Notes; Return Reimbursement Amounts are paid through to Holders in respect of principal of the Notes; portions of Capital Contributions Amounts are paid through to Holders in respect of interest on the Notes and portions are paid through to Holders in respect of principal on the Notes.

* Approximate initial credit support will be 2.22% for the Class 1M-2A Notes, 1.58% for the Class 1M-2B Notes and 0.95% for the Class 1M-2C Notes.
 ** Shown for illustrative purposes only. Represents the sum of the Class Notional Amounts of the Class 1M-CH, Class 1M-BH and Class 1M-AH Reference Tranches. Losses are allocated to such Reference Tranches in that order.

Transaction Parties and Principal Transaction Documents



1. TRUST AGREEMENT

- Connecticut Avenue Securities Trust 2020-R01 established as a Delaware statutory trust.
- U.S. Bank Trust National Association appointed as Delaware Trustee.
- Fannie Mae appointed as Administrator and agrees to pay expenses of the Issuer.
- Fannie Mae, as Trustor, contributes Designated Q-REMIC Interests to Issuer.

2. COLLATERAL ADMINISTRATION AGREEMENT

- Fannie Mae pays Transfer Amounts and Return Reimbursement Amounts, if any, to Issuer.
- Issuer pays Return Amounts, if any, to Fannie Mae.

3. CAPITAL CONTRIBUTION AGREEMENT

- Fannie Mae pays Capital Contribution Amounts, if any, to Issuer.

4. INDENTURE

- Wells Fargo Bank, N.A. appointed as Indenture Trustee, Custodian and Exchange Administrator.
- Issuer issues Notes and Certificates and pledges trust assets to Indenture Trustee to secure payment of Return Amounts and payments on the Notes.
- Provides cash flow, payment and allocation priorities.
- Provides for exchanges of RCR Notes and Exchangeable Notes.

5. INVESTMENT AGENCY AGREEMENT

- Wells Fargo Bank, N.A. appointed as Investment Agent in respect of the Cash Collateral Account.

6. NOTE PURCHASE AGREEMENT

- Issuer sells Notes to the Initial Purchasers.
- Initial Purchasers purchase Notes and offer Notes to investors.

| <u>Reference Tranches</u> | <u>Initial Class Notional Amount</u> | <u>Approximate Initial Subordination⁽¹⁾</u> |
|---|--|--|
| Class 1A-H | \$27,857,718,495 | 3.95% ⁽²⁾ |
| Class 1M-1 and Class 1M-1H ⁽³⁾ | \$319,036,859 ⁽³⁾ | 2.85% ⁽⁴⁾ |
| Class 1M-2 and Class 1M-2H ⁽⁵⁾ | \$551,063,667 ⁽⁵⁾ | 0.95% ⁽⁶⁾ |
| Class 1B-1 and Class 1B-1H ⁽⁷⁾ | \$217,525,131 ⁽⁷⁾ | 0.20% ⁽⁸⁾ |
| Class 1B-2H | \$58,006,702 | 0.00% ⁽⁹⁾ |

- (1) Represents the approximate initial subordination and initial credit enhancement of such Reference Tranches, which is equal to the percentage of the Cut-off Date Balance represented by the aggregate initial Class Notional Amount of the Reference Tranches subordinate to the subject Reference Tranches.
- (2) The Class 1A-H Reference Tranche will have an approximate initial credit support of 3.95%, with a required credit support of 4.65%.
- (3) Pursuant to the hypothetical structure, the Class 1M-1 and Class 1M-1H Reference Tranches are *pari passu* with each other. The initial Class Notional Amount shown is the aggregate amount for the Class 1M-1 and Class 1M-1H Reference Tranches combined. The initial Class Notional Amount of the Class 1M-1 Reference Tranche is \$303,085,000 (which corresponds to the initial Class Principal Balance of the Class 1M-1 Notes) and the initial Class Notional Amount for the Class 1M-1H Reference Tranche is \$15,951,859.
- (4) Represents the approximate initial subordination and credit enhancement available to the Class 1M-1 and Class 1M-1H Reference Tranches in the aggregate.
- (5) Shown for illustrative purposes only. The initial Class Notional Amount shown is the aggregate amount for the Class 1M-2 and Class 1M-2H Reference Tranches combined. The initial Class Notional Amount of the Class 1M-2 Reference Tranche is \$523,509,000 (which corresponds to the initial Class Principal Balance of the Class 1M-2 Notes and the sum of the initial Class Principal Balances of the Class 1M-2A, Class 1M-2B and Class 1M-2C Notes) and the initial Class Notional Amount for the Class 1M-2H Reference Tranche is \$27,554,667 (which corresponds to the sum of the initial Class Notional Amounts of the Class 1M-AH, Class 1M-BH and Class 1M-CH Reference Tranches, which are each \$9,184,889). Pursuant to the hypothetical structure, the Class 1M-2A and Class 1M-AH Reference Tranches are *pari passu* with each other, the Class 1M-2B and Class 1M-BH Reference Tranches are *pari passu* with each other and the Class 1M-2C and Class 1M-CH Reference Tranches are *pari passu* with each other.
- (6) Represents the approximate initial subordination and credit enhancement available to the Class 1M-2 and Class 1M-2H Reference Tranches in the aggregate. The approximate initial subordination and credit enhancement available to the Class 1M-2A and Class 1M-AH Reference Tranches is 2.22%, the approximate initial subordination and credit enhancement available to the Class 1M-2B and Class 1M-BH Reference Tranches is 1.58% and the approximate initial subordination and credit enhancement available to the Class 1M-2C and Class 1M-CH Reference Tranches is 0.95%.
- (7) Pursuant to the hypothetical structure, the Class 1B-1 and Class 1B-1H Reference Tranches are *pari passu* with each other. The initial Class Notional Amount shown is the aggregate amount for the Class 1B-1 and Class 1B-1H Reference Tranches combined. The initial Class Notional Amount of the Class 1B-1 Reference Tranche is \$206,648,000 (which corresponds to the initial Class Principal Balance of the Class 1B-1 Notes) and the initial Class Notional Amount for the Class 1B-1H Reference Tranche is \$10,877,131.
- (8) Represents the approximate initial subordination and credit enhancement available to the Class 1B-1 and Class 1B-1H Reference Tranches in the aggregate.
- (9) No subordination or credit enhancement is available to the Class 1B-2H Reference Tranche (other than any Overcollateralization Amount).

The Class 1M-1 Reference Tranche will correspond to the Class 1M-1 Notes, the Class 1M-2A Reference Tranche will correspond to the Class 1M-2A Notes, the Class 1M-2B Reference Tranche will correspond to the Class 1M-2B Notes, the Class 1M-2C Reference Tranche will correspond to the Class 1M-2C Notes and the Class 1B-1 Reference Tranche will correspond to the Class 1B-1 Notes. With respect to any Payment Date, any reductions in the Class Notional Amount of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche, allocated pursuant to the hypothetical structure as described in this Offering Memorandum as a result of the occurrence of Credit Events or Modification Events on the Reference Obligations, will result in a corresponding reduction in the Class Principal Balance of the Class 1M-1, Class 1M-2 (with allocations among the Class 1M-2A, Class 1M-2B and Class 1M-2C Reference Tranches to be made as described in this Offering Memorandum) or Class 1B-1 Notes, as applicable. Similarly, with respect to any Payment Date, the amount of any principal collections on the Reference Obligations that are allocated to reduce the Class Notional Amount of the Class 1M-1, Class 1M-2 or Class 1B-1 Reference Tranche pursuant to the hypothetical structure described in this Offering Memorandum will result in the Issuer being required to pay a corresponding amount of principal on such Payment Date to the Class 1M-1, Class 1M-2 (with allocations among the Class 1M-2A, Class 1M-2B and Class 1M-2C Reference Tranches to be made as described in this Offering Memorandum) or Class 1B-1 Notes, as applicable, as a result of the relationship between the Class 1M-1, Class 1M-2 or Class 1B-1 Notes on the one hand and its corresponding Reference Tranche or Tranches on the other hand. Investors in the Notes should review and understand all the information related to the hypothetical structure and the Reference Tranches in this Offering

Memorandum and otherwise made available to such investors as if they were investing in the Reference Tranche corresponding to their Class of Notes.

The effect of the Issuer entering into the Collateral Administration Agreement and Capital Contribution Agreement with Fannie Mae and linking the Notes to the Reference Pool (and the corresponding Reference Tranches) pursuant to the Indenture under the hypothetical structure is that Fannie Mae transfers to the Holders a portion of the economic exposure that it would otherwise bear with respect to the Reference Pool. In particular, economic exposure is transferred to the extent that the Class Principal Balances of the Notes are subject to (i) being written down as a result of the occurrence of Credit Events or Modification Events on the Reference Obligations (with corresponding payments of Return Amounts to Fannie Mae in respect of such occurrences) and (ii) interest amount reductions as a result of Modification Events on the Reference Obligations, in each case as described in this Offering Memorandum. In effect, because the Issuer is not issuing any notes that correspond to the Class 1A-H, Class 1M-1H, Class 1M-AH, Class 1M-BH, Class 1M-CH, Class 1B-1H or Class 1B-2H Reference Tranches, Fannie Mae is retaining the economic exposure corresponding to the Reference Obligations represented by those Reference Tranches.

On the Closing Date, Fannie Mae intends to enter into the European Risk Retention Letter irrevocably restricting its ability to transfer or hedge more than a 95% pro rata share of the credit risk on any of (i) the Class 1A-H Reference Tranche, (ii) the Class 1M-1 and Class 1M-1H Reference Tranches (in the aggregate), (iii) the Class 1M-2A and Class 1M-AH Reference Tranches (in the aggregate), (iv) the Class 1M-2B and Class 1M-BH Reference Tranches (in the aggregate), (v) the Class 1M-2C and Class 1M-CH Reference Tranches (in the aggregate) or (vi) the Class 1B-1 and Class 1B-1H Reference Tranches (in the aggregate). Additionally, Fannie Mae does not intend to and will not, through this transaction or any subsequent transactions, enter into any such agreements with respect to any of the credit risk on the Class 1B-2H Reference Tranche. Any transfers or hedges that are not so restricted may be effected by, among others, the issuance of a new series of Connecticut Avenue Securities notes in the future that references the Reference Pool related to the Notes of this transaction. See "*European Securitization Rules*" and "*Risk Factors — Investment Factors and Risks Related to the Notes — Additional Governmental Actions in the U.S. and Abroad Could Adversely Affect the Market Value of the Notes*".

Combinable and Recombinable Notes (RCR Notes)

Holders of Class 1M-2 Notes may exchange all or part of those Notes for proportionate interests in the related Exchangeable Notes, and vice versa, and Holders of Class 1B-1 Notes may exchange all or part of those Notes for proportionate interests in the related RCR Notes, and vice versa. Additionally, Holders of Class 1M-2A, Class 1M-2B and Class 1M-2C Notes may further exchange all or part of those Notes for proportionate interests in the other related RCR Notes, and vice versa, at any time on or after the earlier of (i) the tenth Business Day following the Closing Date or (ii) the first Business Day following the first Payment Date (the "**Initial Exchange Date**"); *provided*, that no such exchange will occur on any Payment Date or Record Date. Certain Classes of related RCR Notes may further be exchanged for proportionate interests in other Classes of RCR Notes in the applicable combinations set forth on Schedule I, and vice versa. Exchanges may occur repeatedly. Schedule I attached hereto sets forth the available combinations (the "**Combinations**") and characteristics of the Exchangeable Notes and RCR Notes and the exchange procedures and fees. For the avoidance of doubt, an investor that would otherwise become a Holder of Class 1M-2 or Class 1B-1 Notes on the Closing Date may specify, no later than 2:00 P.M. (New York City time) on the third Business Day prior to the Closing Date, any permissible combination of proportionate interests in related RCR Notes or Exchangeable Notes for receipt by such investor on the Closing Date, in which case any exchange procedures and fees otherwise applicable to such exchange will be waived.

SUMMARY OF TERMS

The following summary does not purport to be complete and is qualified in its entirety by reference to the detailed information appearing elsewhere in this Offering Memorandum and related documents referred to herein. See "Index of Definitions", which appears at the end of this Offering Memorandum.

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| Title of Series | Connecticut Avenue Securities, Series 2020-R01. |
| Offered Notes | The Class 1M-1, Class 1M-2 and Class 1B-1 Notes. |
| Issuer | Connecticut Avenue Securities Trust 2020-R01, a Delaware statutory trust, is the " Issuer " of the Notes. |
| Trustor and Administrator | Fannie Mae, a government-sponsored enterprise chartered by Congress, will act as trustor (the " Trustor ") and as administrator (the " Administrator ") of the Issuer. |
| Delaware Trustee | U.S. Bank Trust National Association, not in its individual capacity but solely in its capacity as Delaware Trustee (the " Delaware Trustee ") pursuant to an amended and restated trust agreement (the " Trust Agreement ") entered into among the Delaware Trustee, Fannie Mae, as Trustor and Administrator, and Wells Fargo Bank, N.A. as certificate registrar and certificate paying agent. |
| Indenture Trustee | Wells Fargo Bank, N.A. (" Wells Fargo Bank ") will act as indenture trustee (the " Indenture Trustee ") pursuant to an indenture (the " Indenture ") entered into with the Issuer and the Administrator. See " <i>The Agreements — The Indenture</i> ". |
| Exchange Administrator | Wells Fargo Bank will act as the exchange administrator (the " Exchange Administrator ") for the RCR Notes and the Exchangeable Notes. The Exchange Administrator will, among other duties, administer all exchanges of RCR Notes for Exchangeable Notes and vice versa, which will include receiving notices of requests for such exchanges from Noteholders, accepting the Notes to be exchanged, and giving notice to the Indenture Trustee of all such exchanges. |
| Custodian | Wells Fargo Bank will act as custodian (the " Custodian "), pursuant to the Indenture, with respect to investments held in the Cash Collateral Account. |
| Investment Agent | Wells Fargo Bank or an affiliate thereof will act as investment agent (the " Investment Agent "), pursuant to the Investment Agency Agreement (the " Investment Agency Agreement "), by and among the Issuer, the Administrator, the Investment Agent and the Custodian, with respect to investments held in the Cash Collateral Account. |

Assets of the Issuer

The assets of the Issuer will consist of the Cash Collateral Account (including the investments held therein), the Designated Q-REMIC Interests, the Note Distribution Account, and the right, title and interest of the Issuer in, to and under the Collateral Administration Agreement the Capital Contribution Agreement, the Securities Account Control Agreement, the Investment Agency Agreement and the Administration Agreement, all of which will be pledged to the Indenture Trustee for the benefit of Fannie Mae and the Holders.

Designated Q-REMIC Interests

The "**Designated Q-REMIC Interests**" are REMIC regular interests issued by a Fannie Mae trust pursuant to a master trust agreement dated as of May 1, 2018.

The Designated Q-REMIC Interests consist of (i) one or more interest-only REMIC regular interests related to certain interest cash flows from the Reference Obligations and certain of the Uncovered Q-REMIC Loans (the "**IO Q-REMIC Interest**") and (ii) one or more subordinate REMIC regular interests related to the Reference Obligations, as further described herein (the "**Subordinate Q-REMIC Interest**").

On the Closing Date, Fannie Mae will contribute the Designated Q-REMIC Interests to the Issuer and the Issuer will pledge the Designated Q-REMIC Interests to the Indenture Trustee.

Cash Collateral Account

The "**Cash Collateral Account**" will be established on the Closing Date in the name of the Issuer and subject to the lien of the Indenture Trustee on behalf of the Secured Parties under the Indenture. The Custodian will invest (at the direction of the Investment Agent) amounts held in the Cash Collateral Account in Eligible Investments pursuant to the Investment Agency Agreement. The Investment Agent will direct the Custodian to liquidate Eligible Investments held in the Cash Collateral Account to pay any Return Amounts due to Fannie Mae on any Remittance Date and, to the extent available after payment of such Return Amounts, deposit the proceeds in the Note Distribution Account for payment to Noteholders in respect of principal due on the Notes on the related Payment Date. Investment earnings on Eligible Investments held in the Cash Collateral Account during the related Investment Accrual Period will be deposited in the Note Distribution Account for payment to Noteholders in respect of interest; provided, that any investment earnings in excess of the LIBOR Interest Component for such Payment Date will be retained in the Cash Collateral Account until the Termination Date and will at no time be available for payment to Noteholders.

The rights of the Holders in the Cash Collateral Account will be subordinate to Fannie Mae's right to receive Return Amounts for so long as the Notes remain

outstanding.

The "**Investment Accrual Period**" with respect to a Payment Date is the calendar month immediately preceding the month of such Payment Date.

Eligible Investments

"**Eligible Investments**" means each of the following investments, provided such investment is scheduled to mature on or before the immediately following Remittance Date, and all cash proceeds thereof: (a) obligations issued or fully guaranteed by the U.S. government; (b) repurchase obligations involving any security that is an obligation of, or fully guaranteed by, the U.S. government or any agency or instrumentality thereof, and entered into with a depository institution or trust company (as principal) subject to supervision by U.S. federal or state banking or depository institution authorities, provided that such institution has a short-term issuer rating of "A-1+", "P1", "F1+" or equivalent from an NRSRO (as defined herein), and further provided that if Fitch Ratings, Inc. has been engaged to provide a rating on the Rated Notes, such institution must have a short-term issuer rating of "F1+", and further provided that if S&P Global Ratings, a Standard & Poor's Financial Services LLC business, has been engaged to provide a rating on the Rated Notes, such institution must have a short-term issuer rating of "A-1+"; and (c) U.S. government money market funds that are designed to meet the dual objective of preservation of capital and timely liquidity; *provided, however*, that in the event an investment fails to qualify under (a), (b) or (c) above, the proceeds of the sale of such investment will be deemed to be liquidation proceeds of an Eligible Investment for all purposes of the Indenture provided such liquidation proceeds are promptly reinvested in Eligible Investments that qualify in accordance with one of the foregoing. With respect to money market funds, the maturity date will be determined under Rule 2a-7 under the Investment Company Act.

Note Accrual Period

For the Notes and each Payment Date, the period beginning on and including the prior Payment Date (or, in the case of the first Payment Date, the Closing Date) and ending on and including the day preceding such Payment Date.

The amount of interest that will accrue on a given Class of Notes (and will be deemed to accrue on the Class 1B-2H Reference Tranche for purposes of calculating allocations of any Modification Loss Amounts) during each Note Accrual Period is equal to:

- the Class Coupon for such Class of Notes (or Reference Tranche) for such Note Accrual Period (calculated using the Class Coupon formula as described herein), multiplied by

- the Class Principal Balance or Class Notional Amount of such Class of Notes (or Class Notional Amount of such Reference Tranche) immediately prior to such Payment Date, multiplied by
- the actual number of days in the related Note Accrual Period, divided by
- 360.

Note Distribution Account

The "**Note Distribution Account**" will be established on the Closing Date in the name of the Indenture Trustee. The Note Distribution Account will include deposits from time to time of (a) investment income earned on Eligible Investments held in the Cash Collateral Account (up to the amount of the LIBOR Interest Component for a Payment Date), (b) proceeds from the liquidation of those Eligible Investments, (c) any Transfer Amounts, Capital Contribution Amounts and Return Reimbursement Amounts and (d) without duplication of the amounts set forth in clauses (a) through (c) above, other amounts payable to the Issuer in respect of the Designated Q-REMIC Interests; *provided*, that amounts payable in respect of the X-IO Interest will be paid directly to the X-IO Interests holder and will not be deposited in the Note Distribution Account.

Collateral Administration Agreement

Simultaneously with the issuance of the Notes, Fannie Mae, the Issuer and the Indenture Trustee will enter into a Collateral Administration Agreement (the "**Collateral Administration Agreement**").

Under the Collateral Administration Agreement, Fannie Mae will, on each Remittance Date, pay to the Issuer, an amount equal to (i) the Transfer Amount, if any, for such Remittance Date (it being understood that the Trust Estate Yield for the related Payment Date will be deemed to satisfy, up to the amount of such Trust Estate Yield, Fannie Mae's Transfer Amount payment obligation for such Remittance Date) and (ii) the Return Reimbursement Amount, if any, for such Remittance Date. In addition, on each Remittance Date, under the Collateral Administration Agreement, the Issuer will pay to Fannie Mae an amount equal to the Return Amount for such Remittance Date.

As a result of Fannie Mae and the Issuer entering into the Collateral Administration Agreement, as well as the Indenture linking the Notes to the performance of the Reference Pool and corresponding Reference Tranches, Fannie Mae will pass through to Noteholders the economic exposure to specified losses that Fannie Mae would otherwise bear with respect to the Reference Pool. See "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches*". See "*The Agreements — The Collateral*".

Administration Agreement" and "— The Capital Contribution Agreement."

Transfer Amount

The "**Transfer Amount**" for a Remittance Date is the excess of (a) the aggregate Interest Payment Amount for the related Payment Date over (b) the LIBOR Interest Component for such Payment Date.

The "**LIBOR Interest Component**" means, for a Payment Date, an amount equal to the product of (i) One-Month LIBOR for the related Note Accrual Period, (ii) the aggregate Class Principal Balance of the Classes of Notes outstanding immediately prior to such Payment Date and (iii) a fraction, the numerator of which is the actual number of days in the related Note Accrual Period and the denominator of which is 360.

Trust Estate Yield

The "**Trust Estate Yield**" for a Payment Date is the cash flow yield on the assets contributed by Fannie Mae and constituting part of the trust estate of the Issuer (including the IO Q-REMIC Interest but excluding the Subordinate Q-REMIC Interest and Eligible Investments held in the Cash Collateral Account) in respect of such Payment Date.

Return Amount

The "**Return Amount**" for a Remittance Date is the aggregate Tranche Write-down Amounts, if any, allocated to reduce the Class Principal Balance of each applicable outstanding Class of Notes on the related Payment Date (without regard to any exchanges of Exchangeable Notes for any RCR Notes).

Return Reimbursement Amount

Fannie Mae will be obligated to pay to the Issuer a "**Return Reimbursement Amount**" for any Remittance Date in an amount equal to the aggregate Tranche Write-up Amounts, if any, allocated to increase the Class Principal Balance of each applicable outstanding Class of Notes on the related Payment Date (without regard to any exchanges of Exchangeable Notes for any RCR Notes).

The rights of the Holders will be subordinate to Fannie Mae's right to receive Return Amounts for so long as the Notes remain outstanding.

Capital Contribution Agreement

Simultaneously with the issuance of the Notes, Fannie Mae, the Issuer and the Indenture Trustee will enter into a Capital Contribution Agreement (the "**Capital Contribution Agreement**").

Under the Capital Contribution Agreement, Fannie Mae will, on each Remittance Date, pay to the Issuer an amount equal to the Capital Contribution Amount for such Remittance Date. Upon confirmation from each engaged NRSRO that the ratings on the applicable Notes will not be downgraded or withdrawn as a result, Fannie Mae may assign its obligation to a third party, in which

case the assignee will pay to the Issuer an amount equal to the Capital Contribution Amount for such Remittance Date. The Capital Contribution Amount is intended to afford limited protection to Noteholders in the event that investment earnings on Eligible Investments are insufficient to pay interest for any Payment Date or in the event of losses in respect of liquidations of Eligible Investments. See "*The Agreements — The Capital Contribution Agreement.*"

The Capital Contribution Agreement is subject to termination following the occurrence of a CAA Early Termination Date under the Collateral Administration Agreement.

Securities Account Control Agreement

On the Closing Date, the Issuer will enter into the Securities Account Control Agreement with the Custodian and the Indenture Trustee. Pursuant to the Securities Account Control Agreement, the Issuer will appoint the Custodian as the custodian to hold all Eligible Investments in the Cash Collateral Account and to act as securities intermediary with respect to the Designated Q-REMIC Interests.

Capital Contribution Amount

The Capital Contribution Amount for any Remittance Date is the sum of the LIBOR Interest Component Contribution, if any, for such Remittance Date and the Investment Liquidation Contribution, if any, for such Remittance Date.

The "**LIBOR Interest Component Contribution**" for any Remittance Date is the excess, if any, of (a) the LIBOR Interest Component for the related Payment Date over (b) investment earnings on Eligible Investments in the Cash Collateral Account during the related Investment Accrual Period.

The "**Investment Liquidation Contribution**" for any Remittance Date is an amount equal to the excess, if any, of (a) the principal amount (book value) of Eligible Investments liquidated in respect of such Remittance Date over (b) the liquidation proceeds of such Eligible Investments.

If Fannie Mae assigns its obligations to pay Capital Contribution Amounts under the Capital Contribution Agreement, such assignee will be responsible for payments of the Capital Contribution Amounts. See "*The Agreements — The Capital Contribution Agreement — General.*"

Because the first Payment Date will have no related Investment Accrual Period, it is expected that the Capital Contribution Provider's LIBOR Interest Component Contribution for the first Payment Date will be equal to the LIBOR Interest Component for such Payment Date.

Notes

The Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes, together with the "Related Combinable and Recombinable Notes" (the "**RCR Notes**") set forth on Schedule I (including the Class 1M-2 Notes).

The Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes are the "**Exchangeable Notes**" to which the RCR Notes relate. The Notes will receive principal payments, if entitled to receive principal, and will be allocated reductions and increases in Class Principal Balance or Class Notional Amount, as applicable, in accordance with such allocations to the related Reference Tranches.

Exchanges of RCR Notes.....

Holders of Class 1M-2 Notes may exchange all or part of those Notes for proportionate interests in the related Exchangeable Notes, and vice versa, and Holders of the Class 1B-1 Notes may exchange all or part of those Notes for proportionate interests in the related RCR Notes, and vice versa. Additionally, Holders of Class 1M-2A, Class 1M-2B and Class 1M-2C Notes may further exchange all or part of those Exchangeable Notes for proportionate interests in the related RCR Notes, and vice versa. Holders of certain Classes of RCR Notes may further exchange all or part of those Classes for proportionate interests in other RCR Notes in the applicable combinations set forth on Schedule I hereto, and vice versa. Exchanges may occur repeatedly. Schedule I hereto sets forth the available combinations (the "**Combinations**") and characteristics of the RCR Notes and the exchange procedures and fees. RCR Notes that are held by Holders will receive interest payments that are allocable to the related Exchangeable Notes, calculated at the applicable class coupon rate, and all principal amounts that are payable by the Issuer on the related Exchangeable Notes will be allocated to and payable to the related RCR Notes entitled to principal. In addition, all Tranche Write-down Amounts that are allocable to Exchangeable Notes will be allocated to reduce the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero). Further, all Tranche Write-up Amounts that are allocable to Exchangeable Notes will be allocated to increase the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes. If any Tranche Write-down Amounts are allocated to a Class or Classes of Exchangeable Notes on any Payment Date, the Issuer will owe Fannie Mae a Return Amount in respect of such Payment Date. To the extent that any Tranche Write-up Amounts are allocated to increase the Class Principal Balances or Class Notional Amounts of the related RCR Notes, Fannie Mae will owe the Issuer a Return Reimbursement Amount (without regard to any

exchanges of Exchangeable Notes for RCR Notes), which will be paid to Noteholders as described herein.

Classes.....

Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H, Class 1B-2H and the Classes of RCR Notes (including Class 1M-2) set forth on Schedule I hereto, as applicable (each, a "Class" and together, the "Classes").

Class Principal Balance.....

The "**Class Principal Balance**" of each Class of Notes as of any Payment Date is the maximum dollar amount of principal to which the Holders of the related Class of Notes are then entitled, with such amount being equal to the initial Class Principal Balance of the related Class of Notes, *minus* the aggregate amount of principal paid by the Issuer on the related Class of Notes on such Payment Date and all prior Payment Dates, *minus* the aggregate amount of Tranche Write-down Amounts allocated to reduce the Class Principal Balance of the related Class of Notes on such Payment Date and on all prior Payment Dates, and *plus* the aggregate amount of Tranche Write-up Amounts allocated to increase the Class Principal Balance of the related Class of Notes on such Payment Date and on all prior Payment Dates (in each case without regard to any exchanges of Exchangeable Notes for RCR Notes). The Class Principal Balance of each Class of Notes (other than RCR Notes) will at all times equal the Class Notional Amount of the Reference Tranche that corresponds to such Class of Notes. For the avoidance of doubt, no Tranche Write-up Amount or Tranche Write-down Amount will be applied twice on the same Payment Date. The aggregate Class Principal Balance of each outstanding Class of RCR Notes entitled to principal will be equal to the aggregate outstanding Class Principal Balance of the Exchangeable Notes that were exchanged for such RCR Notes.

In each case, principal amounts that are payable by the Issuer on the related Exchangeable Notes will be allocated to and payable on any outstanding RCR Notes that are entitled to principal.

Class Notional Amount of Interest Only RCR Notes.....

Certain of the RCR Notes set forth on Schedule I hereto are interest-only RCR Notes ("**Interest Only RCR Notes**") and are not entitled to receive payments of principal. Each of these Classes has a Class Notional Amount as of any Payment Date equal to a specified percentage of the outstanding Class Principal Balance of the related Class of Exchangeable Notes or RCR Notes, as the case may be.

Payment Date.....

Payments on the Notes will be made by the Indenture Trustee on the twenty-fifth (25th) day of each month (or, if such day is not a Business Day, then on the next succeeding Business Day) beginning in February 2020 (each, a "**Payment Date**"). The "**Remittance Date**" is

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| | the Business Day immediately preceding each Payment Date. |
| Closing Date | On or about January 23, 2020 (the " Closing Date "). |
| Record Date | The Business Day immediately preceding a Payment Date, with respect to Book-Entry Notes, and the last Business Day of the month preceding a Payment Date, with respect to Definitive Notes (the " Record Date "). |
| Maturity Date | The Issuer will be obligated to retire the Notes by paying an amount equal to their full remaining Class Principal Balances, plus accrued and unpaid interest, on the Payment Date in January 2040 (the " Maturity Date "). |
| | The Notes will be retired prior to the Maturity Date on the earliest to occur, if any, of (a) the Early Redemption Date or (b) the Payment Date on which the aggregate Class Principal Balance of all outstanding Notes is otherwise reduced to zero. |
| | If on such date a Class of RCR Notes is outstanding, all amounts payable on the Exchangeable Notes that were exchanged for such RCR Notes will be allocated to and payable on the applicable RCR Notes entitled to receive those amounts, as further described under " <i>Description of the Notes — Termination Dates.</i> " |
| Early Redemption Option | Fannie Mae, as holder of the Ownership Certificate, may direct the Issuer to redeem the Notes on any Payment Date on or after the earlier to occur of (i) the Payment Date on which the aggregate unpaid principal balance of the Reference Obligations is less than or equal to 10% of the Cut-off Date Balance and (ii) the Payment Date occurring in January 2027, by paying an amount equal to the outstanding Class Principal Balance of the Notes, plus accrued and unpaid interest and all unpaid fees, expenses and indemnities of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee (the " Early Redemption Option "). If on the Early Redemption Date a Class of RCR Notes is outstanding, all principal and interest amounts that are payable by the Issuer on the Exchangeable Notes that were exchanged for such RCR Notes will be allocated to and payable on the applicable RCR Notes. |
| | See " <i>Description of the Notes — Early Redemption Option</i> ". |
| CAA Termination Date | The earliest to occur of: (a) the Payment Date occurring in January 2040; (b) the CAA Early Termination Date; (c) the Payment Date related to the Reporting Period in which there occurs the final payment or other liquidation of the last Reference Obligation remaining in the Reference Pool or the disposition of any REO in respect thereof; and (d) the Payment Date related to the Reporting Period in which there occurs the removal of the last |

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| Termination Date | Reference Obligation remaining in the Reference Pool or any REO in respect thereof. |
| | The Notes will no longer be entitled to payments of principal or interest after the date (the " Termination Date ") which is the earliest of: |
| | <ol style="list-style-type: none"> (1) the Maturity Date; (2) the Payment Date (the "Early Redemption Date") that is the earlier to occur of (i) the date on which the Notes are redeemed by the Issuer pursuant to the Early Redemption Option as described under "<i>Description of the Notes — Early Redemption Option</i>"; and (ii) the CAA Early Termination Date (if such date is a result of the occurrence of a CAA Trigger Event); and (3) the Payment Date on which the aggregate initial Class Principal Balances (without giving effect to any allocations of Tranche Write-down Amounts or Tranche Write-up Amounts on such Payment Date and all prior Payment Dates) and accrued and unpaid interest due on the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes, plus all unpaid fees, expenses and indemnities of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee, have otherwise been paid in full. |
| Projected Recovery Amount | On the Termination Date, the Projected Recovery Amount will be included in the calculation of the Principal Recovery Amount. See " <i>Description of the Notes – Projected Recovery Amount</i> ." |
| Legal Status | The Notes will be issued by the Issuer and will be subordinated to Fannie Mae's rights to receive certain amounts under the Collateral Administration Agreement, and Noteholders will have recourse solely to the assets of the Issuer. The Notes will be debt obligations of the Issuer only. The RCR Notes (other than the Class 1B-1Y and Class 1B-1X Notes) represent interests in the Class 1M-2A Notes, Class 1M-2B Notes, Class 1M-2C Notes and/or a combination thereof. The Class 1B-1Y and Class 1B-1X Notes represent interests in the Class 1B-1 Notes. Neither the United States nor Fannie Mae guarantees the Notes or any interest or return of discount on the Notes. The Notes are not debts or obligations of the United States, Fannie Mae or any agency or instrumentality of the United States. |
| Listing | Subsequent to issuance of the Notes, Fannie Mae intends to apply to the Singapore Exchange for the Notes to be listed for trading on the Singapore Exchange. Following any such application, there can be no assurance that any such listing will be granted or maintained. For so long as |

any Notes may be listed on the Singapore Exchange and the rules of the exchange so require, such Notes will be traded on the Singapore Exchange in a minimum board lot size of S\$200,000.

Form of Notes.....

The Notes will be issued on the Closing Date as book-entry Notes (the "**Book-Entry Notes**") and will be held through the book-entry system of the DTC, and, as applicable, Euroclear and Clearstream. The Notes will be available in fully-registered form ("**Definitive Notes**") only in the limited circumstances disclosed under "*Description of the Notes — Form, Registration and Transfer of the Notes*".

Notes Acquired by Fannie Mae

Fannie Mae may, from time to time, purchase or otherwise acquire any of the Notes at any price or prices, in the open market or otherwise. Any such Notes may be sold by Fannie Mae from time to time in negotiated transactions at varying prices to be determined at the time of sale; *provided*, that the Notes will be sold only (i) in the United States to "Qualified Institutional Buyers" in reliance on Rule 144A and (ii) in offshore transactions to persons who are not "U.S. Persons" in reliance on Regulation S. These sales may be made to or through dealers.

Hypothetical Structure and Reference Tranches...

Solely for purposes of making the calculations for each Payment Date of any principal write-downs (or write-ups) or reductions in the interest entitlements on the Notes as a result of Credit Events (or reversals thereof) or Modification Events on the Reference Obligations and principal payments required to be made on the Notes by the Issuer, a hypothetical structure of reference tranches (each, a "**Reference Tranche**") deemed to be backed by the Reference Obligations have been established as set forth in the table under "*Transaction Summary*" above. The Reference Tranches are the Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches.

Corresponding Classes of Reference Tranches

With respect to the Class 1M-1 Notes, the Class 1M-1 Reference Tranche. With respect to the Class 1M-2A Notes, the Class 1M-2A Reference Tranche. With respect to the Class 1M-2B Notes, the Class 1M-2B Reference Tranche. With respect to the Class 1M-2C Notes, the Class 1M-2C Reference Tranche. With respect to the Class 1B-1 Notes, the Class 1B-1 Reference Tranche.

| | |
|--|---|
| Corresponding Classes of Notes | With respect to the Class 1M-1 Reference Tranche, the Class 1M-1 Notes. With respect to the Class 1M-2A Reference Tranche, the Class 1M-2A Notes. With respect to the Class 1M-2B Reference Tranche, the Class 1M-2B Notes. With respect to the Class 1M-2C Reference Tranche, the Class 1M-2C Notes. With respect to the Class 1B-1 Reference Tranche, the Class 1B-1 Notes. The Class 1B-2H Reference Tranche will not have corresponding Notes. |
| Senior Reference Tranche | The Class 1A-H Reference Tranche (the " Senior Reference Tranche "). |
| Mezzanine Reference Tranches | The Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C and Class 1M-CH Reference Tranches (each, a " Mezzanine Reference Tranche " and collectively referred to as the " Mezzanine Reference Tranches "). |
| Junior Reference Tranches | The Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches (each, a " Junior Reference Tranche " and together referred to as the " Junior Reference Tranches "). |
| Reporting Period for Hypothetical Structure | For any Payment Date and for purposes of making calculations with respect to the hypothetical structure and the Reference Tranches, the reporting period (each, a " Reporting Period ") will be the second calendar month preceding the month of such Payment Date. For any Payment Date, the delinquency status of each Reference Obligation will be determined as of close of business on the last day of the related Reporting Period. For example, the Reporting Period for a February Payment Date is the preceding December, and determinations of the delinquency status of the Reference Obligations relative to the February Payment Date are made as of the preceding December 31. |

CUSIP Numbers

The CUSIP Numbers for the Classes of Notes are as follows:

| Class | Rule 144A | Regulation S |
|--------------|------------------|---------------------|
| 1M-1 Notes | 20754CAA7 | U1946CAA3 |
| 1M-2 Notes | 20754CAB5 | U1946CAB1 |
| 1M-2A Notes | 20754CAC3 | U1946CAC9 |
| 1M-2B Notes | 20754CAD1 | U1946CAD7 |
| 1M-2C Notes | 20754CAE9 | U1946CAE5 |
| 1B-1 Notes | 20754CAF6 | U1946CAF2 |
| 1A-I1 Notes | 20754CAG4 | U1946CAG0 |
| 1A-I2 Notes | 20754CAH2 | U1946CAH8 |
| 1A-I3 Notes | 20754CAJ8 | U1946CAJ4 |
| 1A-I4 Notes | 20754CAK5 | U1946CAK1 |
| 1E-A1 Notes | 20754CAL3 | U1946CAL9 |
| 1E-A2 Notes | 20754CAM1 | U1946CAM7 |
| 1E-A3 Notes | 20754CAN9 | U1946CAN5 |
| 1E-A4 Notes | 20754CAP4 | U1946CAP0 |
| 1B-I1 Notes | 20754CAQ2 | U1946CAQ8 |
| 1B-I2 Notes | 20754CAR0 | U1946CAR6 |
| 1B-I3 Notes | 20754CAS8 | U1946CAS4 |
| 1B-I4 Notes | 20754CAT6 | U1946CAT2 |
| 1E-B1 Notes | 20754CAU3 | U1946CAU9 |
| 1E-B2 Notes | 20754CAV1 | U1946CAV7 |
| 1E-B3 Notes | 20754CAW9 | U1946CAW5 |
| 1E-B4 Notes | 20754CAX7 | U1946CAX3 |
| 1C-I1 Notes | 20754CAY5 | U1946CAY1 |
| 1C-I2 Notes | 20754CAZ2 | U1946CAZ8 |
| 1C-I3 Notes | 20754CBA6 | U1946CBA2 |
| 1C-I4 Notes | 20754CBB4 | U1946CBB0 |
| 1E-C1 Notes | 20754CBC2 | U1946CBC8 |
| 1E-C2 Notes | 20754CBD0 | U1946CBD6 |
| 1E-C3 Notes | 20754CBE8 | U1946CBE4 |
| 1E-C4 Notes | 20754CBF5 | U1946CBF1 |
| 1E-D1 Notes | 20754CBG3 | U1946CBG9 |
| 1E-D2 Notes | 20754CBH1 | U1946CBH7 |
| 1E-D3 Notes | 20754CBJ7 | U1946CBJ3 |
| 1E-D4 Notes | 20754CBK4 | U1946CBK0 |
| 1E-D5 Notes | 20754CBL2 | U1946CBL8 |
| 1E-F1 Notes | 20754CBM0 | U1946CBM6 |
| 1E-F2 Notes | 20754CBN8 | U1946CBN4 |
| 1E-F3 Notes | 20754CBP3 | U1946CBP9 |
| 1E-F4 Notes | 20754CBQ1 | U1946CBQ7 |
| 1E-F5 Notes | 20754CBR9 | U1946CBR5 |
| 1-J1 Notes | 20754CBS7 | U1946CBS3 |
| 1-J2 Notes | 20754CBT5 | U1946CBT1 |
| 1-J3 Notes | 20754CBU2 | U1946CBU8 |
| 1-J4 Notes | 20754CBV0 | U1946CBV6 |
| 1-K1 Notes | 20754CBW8 | U1946CBW4 |
| 1-K2 Notes | 20754CBX6 | U1946CBX2 |
| 1-K3 Notes | 20754CBY4 | U1946CBY0 |
| 1-K4 Notes | 20754CBZ1 | U1946CBZ7 |

| Class | Rule 144A | Regulation S |
|--------------|------------------|---------------------|
| 1-X1 Notes | 20754CCA5 | U1946CCA1 |
| 1-X2 Notes | 20754CCB3 | U1946CCB9 |
| 1-X3 Notes | 20754CCC1 | U1946CCC7 |
| 1-X4 Notes | 20754CCD9 | U1946CCD5 |
| 1-Y1 Notes | 20754CCE7 | U1946CCE3 |
| 1-Y2 Notes | 20754CCF4 | U1946CCF0 |
| 1-Y3 Notes | 20754CCG2 | U1946CCG8 |
| 1-Y4 Notes | 20754CCH0 | U1946CCH6 |
| 1M-2Y Notes | 20754CCJ6 | U1946CCJ2 |
| 1M-2X Notes | 20754CCK3 | U1946CCK9 |
| 1B-1Y Notes | 20754CCL1 | U1946CCL7 |
| 1B-1X Notes | 20754CCM9 | U1946CCM5 |

Certain Relationships and Affiliations

Fannie Mae guarantees the MBS that are backed by the Reference Obligations, but Fannie Mae does not guarantee the Notes that will be issued by the Issuer. Fannie Mae's guaranty obligations with respect to the MBS are not collateralized. Fannie Mae also serves as Trustor and Administrator of the Issuer. These roles and Fannie Mae's relationships with the related loan sellers/servicers may give rise to conflicts of interest as further described in this Offering Memorandum under "*Risk Factors — The Interests of Fannie Mae, the Initial Purchasers and Others May Conflict With and Be Adverse to the Interests of the Noteholders — Interests of Fannie Mae May Not Be Aligned With the Interests of the Noteholders*". In addition, Wells Fargo Bank, N.A., which acts as the Indenture Trustee, Exchange Administrator, Investment Agent and Custodian may, in its separate capacities as originator, loan seller and servicer with respect to certain of the Reference Obligations, have interests that are adverse to Noteholders. Wells Fargo Bank, N.A. is the originator, loan seller and/or servicer for approximately 15.32% of the Reference Obligations (by aggregate principal balance as of the Cut-off Date). Furthermore, the Initial Purchaser listed below is affiliated with the specified loan seller and servicer of certain Reference Obligations included in the Reference Pool. No other Initial Purchaser is affiliated with a loan seller or servicer of 1% or more of the Reference Obligations (by aggregate principal balance as of the Cut-off Date).

| <u>Initial Purchaser</u> | <u>Affiliated Seller Servicer</u> | <u>% of Reference Obligations (by Aggregate Cut-off Date Balance)</u> |
|--------------------------|-----------------------------------|---|
| Wells Fargo Securities | Wells Fargo Bank | 15.32% |

See "*Risk Factors — The Interests of Fannie Mae, the Initial Purchasers and Others May Conflict With and Be Adverse to the Interests of the Noteholders — Potential Conflicts of Interest of the Indenture Trustee and Exchange Administrator*". Moreover, the activities of the Initial Purchasers and their respective affiliates may result in certain conflicts of interest. See "*Risk Factors — The Interests of Fannie Mae, the Initial Purchasers and Others May Conflict With and Be Adverse to the Interests of the Noteholders — Potential Conflicts of Interest of the Initial Purchasers and their Affiliates*".

Interest

Each Class of Notes bears interest at the applicable per annum interest rate (each, a "**Class Coupon**") shown in the following table (subject to the minimum rate shown). The initial Class Coupons apply only to the initial Note Accrual Period. The Indenture Trustee will calculate the Class Coupons for the Notes (including the RCR Notes) for each subsequent Note Accrual Period on the related LIBOR Adjustment Date. One-Month LIBOR will be determined using the ICE Method as described under "*Description of the Notes — Interest*". See also "*Risk Factors — Investment Factors and Risks Related to the Notes — Uncertainty as to the Determination of LIBOR and the Potential Phasing Out of LIBOR after 2021 May Adversely Affect the Value of the Floating Rate Notes*" and "*— The Use of an Alternative Method or Index in Place of LIBOR for Determining Monthly Interest Rates May Adversely Affect the Value of Certain Notes*".

| <u>Class</u> | <u>Initial Class Coupon</u> | <u>Class Coupon Formula</u> | <u>Minimum Rate</u> |
|----------------------------------|-----------------------------|-----------------------------|---------------------|
| 1M-1 Notes..... | ____% | One-Month LIBOR + ____% | 0% |
| 1M-2 Notes ⁽¹⁾ | ____% | One-Month LIBOR + ____% | 0% |
| 1M-2A Notes ⁽²⁾ | ____% | One-Month LIBOR + ____% | 0% |
| 1M-2B Notes ⁽²⁾ | ____% | One-Month LIBOR + ____% | 0% |
| 1M-2C Notes ⁽²⁾ | ____% | One-Month LIBOR + ____% | 0% |
| 1A-I1 Notes ⁽¹⁾ | ____% | ____% ⁽³⁾ | 0% |
| 1A-I2 Notes ⁽¹⁾ | ____% | ____% ⁽³⁾ | 0% |
| 1A-I3 Notes ⁽¹⁾ | ____% | ____% ⁽³⁾ | 0% |
| 1A-I4 Notes ⁽¹⁾ | ____% | ____% ⁽³⁾ | 0% |
| 1E-A1 Notes ⁽¹⁾ | ____% | One-Month LIBOR + ____% | 0% |
| 1E-A2 Notes ⁽¹⁾ | ____% | One-Month LIBOR + ____% | 0% |
| 1E-A3 Notes ⁽¹⁾ | ____% | One-Month LIBOR + ____% | 0% |

| Class | Initial Class Coupon | Class Coupon Formula | Minimum Rate |
|----------------------------------|---------------------------------|---|-------------------------|
| 1E-A4 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1B-I1 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1B-I2 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1B-I3 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1B-I4 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1E-B1 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-B2 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-B3 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-B4 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1C-I1 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1C-I2 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1C-I3 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1C-I4 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1E-C1 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-C2 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-C3 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-C4 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-D1 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-D2 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-D3 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-D4 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-D5 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-F1 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-F2 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-F3 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-F4 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1E-F5 Notes ⁽¹⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1-J1 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-J2 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-J3 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-J4 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-K1 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-K2 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-K3 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-K4 Notes ⁽¹⁾ | ___% | (4) | 0% |
| 1-X1 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1-X2 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1-X3 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1-X4 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1-Y1 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1-Y2 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1-Y3 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1-Y4 Notes ⁽¹⁾ | ___% | ___% ⁽³⁾ | 0% |
| 1M-2Y Notes ⁽¹⁾ | ___% | (5) | 0% |
| 1M-2X Notes ⁽¹⁾ | ___% | (6) | 0% |
| 1B-1Y Notes ⁽¹⁾ | ___% | (5) | 0% |
| 1B-1X Notes ⁽¹⁾ | ___% | (6) | 0% |
| 1B-1 Notes ⁽²⁾ | ___% | One-Month LIBOR + ___% | 0% |
| 1B-2H Reference Tranche | ___% | One-Month LIBOR + 17.25% ⁽⁷⁾ | 0% |

(1) RCR Notes for which Exchangeable Notes or other RCR Notes, as applicable, may be exchanged according to the Combinations set forth on Schedule I hereto.

- (2) Exchangeable Notes for which RCR Notes may be exchanged according to the Combinations set forth on Schedule I hereto.
- (3) The interest payment on each Class of Interest Only RCR Notes for a Payment Date will be as set forth on Schedule I hereto.
- (4) The interest payment on each of these Classes of RCR Notes for a Payment Date represents the sum of the interest payments on the Classes of Exchangeable and RCR Notes included in the related Combination for that Payment Date. The Class Coupon for each of these Classes of RCR Notes with respect to any Payment Date will be a fraction, expressed as a per annum rate, equal to (i) the aggregate interest amount payable on such Payment Date in respect of the Classes of Notes included in the applicable Combination and exchanged for such Class of RCR Notes, divided by (ii) the Class Principal Balance of such Class of RCR Notes immediately prior to such Payment Date, multiplied by (iii) a fraction, the numerator of which is 360 and the denominator of which is the actual number of days in the related Note Accrual Period; provided, that on any Payment Date following the reduction of the Class Principal Balance of such Class of RCR Notes to zero, the interest entitlement of such Class of RCR Notes will be equal to the interest accrued on the remaining Class of Interest Only RCR Notes included in the applicable Combination that was exchanged for such Class of RCR Notes.
- (5) The interest payment on this Class of RCR Notes for a Payment Date represents the portion of such interest that is received in respect of the REMIC regular interest component of the related Class or Classes of Exchangeable Notes or RCR Notes.
- (6) The interest payment on this Class of Interest Only RCR Notes for a Payment Date represents the portion of such interest attributable to a notional principal contract and does not constitute interest in respect of the REMIC regular interest component of the related Class or Classes of Exchangeable Notes or RCR Notes.
- (7) The Class 1B-2H Reference Tranche is deemed to bear interest at the Class Coupon shown solely for purposes of calculating allocations of any Modification Loss Amounts.

The "**Note Accrual Period**" with respect to each Payment Date is the period beginning on and including the prior Payment Date (or, in the case of the first Payment Date, the Closing Date) and ending on and including the day preceding such Payment Date.

The amount of interest that will accrue on a given Class of Notes (and will be deemed to accrue on the Class 1B-2H Reference Tranche for purposes of calculating allocations of any Modification Loss Amounts) during each Note Accrual Period is equal to:

- the Class Coupon for such Class of Notes (or Reference Tranche) for such Note Accrual Period (calculated using the Class Coupon formula as described above), multiplied by
- the Class Principal Balance or Class Notional Amount of such Class of Notes (or Class Notional Amount of such Reference Tranche) immediately prior to such Payment Date, multiplied by
- the actual number of days in the related Note Accrual Period, divided by
- 360.

The interest entitlement of the Notes may be subject to reduction or increase to the extent that the Reference Obligations experience Modification Events, as further described under "*Description of the Notes—Hypothetical Structure and Calculations with Respect to the Reference Tranches—Allocation of Modification Loss Amount.*"

As described in this Offering Memorandum, the Class Principal Balance of any outstanding Class of Notes will be reduced to the extent of any Tranche Write-down Amounts that are allocated to reduce the Class Notional Amount of the corresponding Class of Reference Tranche. Any such reduction in the Class Principal Balance of an outstanding Class of Notes will result in a corresponding reduction in the related amount of interest that will accrue on such Class of Notes during subsequent Note Accrual Periods.

See "*Description of the Notes — Interest*".

Principal

On each Remittance Date, the Investment Agent will direct the Custodian to liquidate Eligible Investments in the Cash Collateral Account and deposit in the Note Distribution Account an amount necessary to pay principal on the Notes as required under the Indenture. Additionally, on each Remittance Date, Fannie Mae will deposit in the Note Distribution Account any Investment Liquidation Contribution included in the Capital Contribution Amount under the Capital Contribution Agreement for payment of principal on the Notes.

Except as described below, on each Payment Date, the Indenture Trustee will pay principal to the Holders of each outstanding Class of Notes (other than the Interest Only RCR Notes) in an amount equal to the portion of the Senior Reduction Amount, the Subordinate Reduction Amount and/or Supplemental Subordinate Reduction Amount, as applicable, allocated to reduce the Class Notional Amount of the corresponding Reference Tranche on such Payment Date as described under "*Hypothetical Structure and Calculations with Respect to the Reference Tranches*" below.

On the earlier to occur of (x) the Early Redemption Date, if any, and (y) the Maturity Date, the Issuer will pay 100% of the then-outstanding Class Principal Balance to Holders of each Class of Notes, after allocations of any Tranche Write-down Amount and the Tranche Write-up Amount for such Payment Date (without regard to any exchanges of Exchangeable Notes for RCR Notes) and after payment of all unpaid fees, expenses and indemnities of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee.

In each case, principal amounts that are payable by the Issuer on the related Exchangeable Notes will be allocated to and payable on any outstanding RCR Notes that are entitled to principal.

Reductions in Class Principal Balances or Class Notional Amounts of the Notes Due to Allocation of Tranche Write-down Amounts

On each Payment Date, including the Termination Date, the Class Principal Balance or Class Notional Amount, as applicable, of each Class of Notes will be reduced, without any corresponding payment of principal, by the amount of the reduction, if any, in the Class Notional Amount of the corresponding Reference Tranche due to the allocation of the Tranche Write-down Amount to such Reference Tranche on such Payment Date pursuant to the terms of the hypothetical structure described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Tranche Write-down Amounts*".

If on the Maturity Date a Class of RCR Notes is outstanding, all Tranche Write-down Amounts that are allocable to the Exchangeable Notes that were exchanged for such RCR Notes will be allocated to reduce the Class Principal Balances or Class Notional Amounts, as applicable, of the applicable RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero).

If any Tranche Write-down Amounts are allocated to a Class or Classes of Reference Tranches corresponding to a Class or Classes of Notes on any Payment Date, the Issuer will owe Fannie Mae a Return Amount on the Payment Date on which the Tranche Write-down Amounts were allocated, equal to the aggregate amount of Tranche Write-down Amounts so allocated to reduce the Class Principal Balances of the Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes). On each Remittance Date on which the Issuer is required to pay a Return Amount under the Collateral Administration Agreement, the Indenture Trustee on behalf of the Issuer will apply liquidation proceeds of Eligible Investments for the payment of the Return Amount and thereafter will deposit remaining liquidation proceeds of Eligible Investments to the Note Distribution Account for payment of principal on the Notes.

Increases in Class Principal Balances or Class Notional Amounts of the Notes Due to Allocation of Tranche Write-up Amounts

On each Payment Date, including the Termination Date, the Class Principal Balance or Class Notional Amount, as applicable, of each Class of Notes will be increased by the amount of the increase, if any, in the Class Notional Amount of the corresponding Reference Tranche due to the allocation of Tranche Write-up Amounts to such Reference Tranche on such Payment Date pursuant to the terms of the hypothetical structure described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches* —

Allocation of Tranche Write-up Amounts". For the avoidance of doubt, through the Termination Date, a Tranche Write-up Amount may be applied to any related Reference Tranche even if the Class Notional Amount of such Reference Tranche has previously been reduced to zero (until the cumulative Tranche Write-up Amount allocated to such Class is equal to the cumulative Tranche Write-down Amount previously allocated to such Class).

If on the Maturity Date a Class of RCR Notes is outstanding, all Tranche Write-up Amounts that are allocable to the Exchangeable Notes that were exchanged for such RCR Notes will be allocated to increase the Class Principal Balances or Class Notional Amounts, as applicable, of the applicable RCR Notes.

If any Tranche Write-up Amounts are allocated to a Class or Classes of Reference Tranches corresponding to a Class or Classes of Notes on any Payment Date, Fannie Mae will owe the Issuer a Return Reimbursement Amount on the Payment Date on which the Tranche Write-up Amounts were allocated, equal to the aggregate amount of Tranche Write-up Amounts so allocated to increase the Class Principal Balances of the Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes). Any Return Reimbursement Amount paid by Fannie Mae on a Payment Date under the Collateral Administration Agreement will be deposited in the Note Distribution Account.

Hypothetical Structure and Calculations with Respect to the Reference Tranches

As described previously, solely for purposes of making the calculations for each Payment Date of (i) any principal write-downs (or write-ups) on the Notes as a result of Credit Events (or reversals thereof) or Modification Events on the Reference Obligations, (ii) any reduction or increase in interest amounts on the Notes as a result of Modification Events on the Reference Obligations and (iii) principal payments required to be made on the Notes, a hypothetical structure of Reference Tranches deemed to be backed by the Reference Obligations has been established as indicated in the table set forth under "*Transaction Summary*" above. Pursuant to the hypothetical structure:

- the Class 1A-H Reference Tranche is senior to all the other Reference Tranches and therefore does not provide any credit enhancement to the other Reference Tranches,
- the Class 1M-1 and Class 1M-1H Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H Reference Tranche and are senior to the Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1M-2A and Class 1M-AH Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H, Class 1M-1 and Class 1M-1H Reference Tranches and are senior to the Class 1M-2B, Class 1M-BH, Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1M-2B and Class 1M-BH Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A and Class 1M-AH Reference Tranches and are senior to the Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1M-2C and Class 1M-CH Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B and Class 1M-BH Reference Tranches and are senior to the Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1B-1 and Class 1B-1H Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C and Class 1M-CH Reference Tranches and are senior to the Class 1B-2H Reference Tranche, and
- the Class 1B-2H Reference Tranche is subordinate to all the other Reference Tranches and therefore does not benefit from any credit enhancement (other than any Overcollateralization Amount).

Each Reference Tranche will have an initial Class Notional Amount indicated in the table set forth under "*Transaction Summary*" above and the aggregate of the initial Class Notional Amounts of all the Reference Tranches will be approximately equal to the Cut-off Date Balance of the Reference Obligations.

Class Notional Amount of Reference Tranches

The "**Class Notional Amount**" of each Reference Tranche as of any Payment Date is a notional amount equal to the initial Class Notional Amount of such Reference Tranche,

- *minus* the aggregate amount of Senior Reduction Amounts, Subordinate Reduction Amounts and Supplemental Subordinate Reduction Amounts allocated to such Reference Tranche on such Payment Date and all prior Payment Dates,
- *minus* the aggregate amount of Tranche Write-down Amounts allocated to reduce the Class Notional Amount of such Reference Tranche on such Payment Date and on all prior Payment Dates,
- *plus* the aggregate amount of Tranche Write-up Amounts allocated to increase the Class Notional Amount of such Reference Tranche on such Payment Date and on all prior Payment Dates and
- *plus*, in the case of the Class 1-AH Reference Tranche, the aggregate amount of Supplemental Senior Increase Amounts allocated to increase the Class Notional Amount thereof on such Payment Date and on all prior Payment Dates.

For the avoidance of doubt, no Tranche Write-up Amount or Tranche Write-down Amount will be applied twice on the same Payment Date.

Allocation of Senior Reduction Amount and Subordinate Reduction Amount

On each Payment Date on or prior to the Termination Date, the Senior Reduction Amount will be allocated to reduce the Class Notional Amount of each Reference Tranche in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1A-H Reference Tranche,

second, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

third, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fifth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

sixth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, and

seventh, to the Class 1B-2H Reference Tranche.

For the definition of Senior Reduction Amount, see "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Senior Reduction Amount and Subordinate Reduction Amount*".

On each Payment Date on or prior to the Termination Date, the Subordinate Reduction Amount will be allocated to reduce the Class Notional Amount of each Reference Tranche in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

second, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

third, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fourth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fifth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

sixth, to the Class 1B-2H Reference Tranche, and

seventh, to the Class 1A-H Reference Tranche.

For the definition of Subordinate Reduction Amount, see "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Senior Reduction Amount and Subordinate Reduction Amount*".

Because the Notes correspond to the related Reference Tranches, any portion of the Senior Reduction Amount or Subordinate Reduction Amount allocated to the Reference Tranches will result in a corresponding reduction in the Class Principal Balance of the related Notes. Any such reductions in the Class Principal Balance of a Class of Exchangeable Notes will result in a corresponding reduction in the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes.

See "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Senior Reduction Amount and Subordinate Reduction Amount*".

Allocation of Tranche Write-down Amounts

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount and Subordinate Reduction Amount, the Tranche Write-down Amount, if any, for such Payment Date will be allocated, *first*, to reduce any Overcollateralization Amount for such Payment Date, until such Overcollateralization Amount is reduced to zero and, *second*, to reduce the Class Notional Amount of each Reference Tranche in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1B-2H Reference Tranche,

second, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts,

third, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fifth, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

sixth, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts, and

seventh, to the Class 1A-H Reference Tranche (up to the amount of any remaining unallocated Tranche Write-down Amounts *less* the amount attributable to clause (d) of the definition of "Principal Loss Amount").

Because the Notes correspond to the related Reference Tranches, any Tranche Write-down Amounts allocated to a Reference Tranche will result in a corresponding reduction in the Class Principal Balance of the related Class of Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount allocable to a Class of Exchangeable Notes will be allocated to reduce the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero).

See "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Tranche Write-down Amounts*".

Allocation of Tranche Write-up Amounts

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount, the Subordinate Reduction Amount and any Tranche Write-down Amounts, the Tranche Write-up Amounts, if any, for such Payment Date will be allocated to increase the Class Notional Amount of each Reference Tranche in the following order of priority until the cumulative Tranche Write-up Amount allocated to each such Reference Tranche is equal to the cumulative Tranche Write-down Amount previously allocated to such Reference Tranche on or prior to such Payment Date:

first, to the Class 1A-H Reference Tranche,

second, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts,

third, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fifth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

sixth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts, and

seventh, to the Class 1B-2H Reference Tranche.

Because the Notes correspond to the related Reference Tranches, any Tranche Write-up Amounts allocated to a Reference Tranche will result in a corresponding increase in the Class Principal Balance of the related Class of Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-up Amount allocable to a Class of Exchangeable Notes will be allocated to increase the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes.

See "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Tranche Write-up Amounts*".

Allocation of Supplemental Subordinate Reduction Amount and Supplemental Senior Increase Amount

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount, the Subordinate Reduction Amount and any Tranche Write-down Amounts and Tranche Write-up Amounts, the Supplemental Subordinate Reduction Amount, if any, for such Payment Date will be allocated to reduce the Class

Notional Amount of each of the following Reference Tranches in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts,

second, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

third, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fourth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts, and

fifth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts.

Because the Notes correspond to the related Reference Tranches, any portion of the Supplemental Subordinate Reduction Amount allocated to the Reference Tranches will result in a corresponding reduction in the Class Principal Balance of the related Notes. Any such reductions in the Class Principal Balance of a Class of Exchangeable Notes will result in a corresponding reduction in the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes.

Simultaneously, on each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount, the Subordinate Reduction Amount and any Tranche Write-down Amounts and Tranche Write-up Amounts, the Supplemental Senior Increase Amount, if any, for such Payment Date will be allocated to increase the Class Notional Amount of the Class 1A-H Reference Tranche.

See "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Supplemental Subordinate Reduction Amount and Supplemental Senior Increase Amount*".

Allocation of Modification Loss Amount

On each Payment Date on or prior to the Termination Date, losses associated with Modification Events on Reference Obligations will be allocated in reduction of interest and/or principal, as described under "*Description of the Notes—Hypothetical Structure and Calculations with Respect to the Reference Tranches—Allocation of Modification Loss Amount*."

The Reference Pool

The Reference Pool will consist of the Reference Obligations, which are mortgage loans that meet the Eligibility Criteria.

The "**Eligibility Criteria**" to be satisfied with respect to each mortgage loan included as a Reference Obligation in the Reference Pool are as follows:

(a) is a fully amortizing, fixed rate, first-lien mortgage loan secured by a one- to four-family dwelling unit, townhouse, individual condominium unit, individual unit in planned unit development, individual co-operative unit or manufactured home, with an original term of 241 to 360 months;

(b) was acquired by Fannie Mae between October 1, 2018 and August 31, 2019 and held in various Fannie Mae MBS trusts established between July 1, 2019 and September 30, 2019;

(c) is held in Fannie Mae MBS trusts with respect to which a REMIC election has been made;

(d) has not been 30 or more days delinquent from the date of acquisition to the Cut-off Date;

- (e) was not originated under Fannie Mae's Refi Plus program (which includes but is not limited to the Home Affordable Refinance Program ("**HARP**"));
- (f) has an original combined loan-to-value ratio that is less than or equal to 97%;
- (g) is not subject to any form of risk sharing (other than limited seller or servicer indemnification or limited future loss protection settlements in certain cases);
- (h) was not originated under certain non-standard programs;
- (i) is a conventional loan (i.e. is not guaranteed by the Federal Housing Administration ("**FHA**") or the U.S. Department of Veterans Affairs ("**VA**"));
- (j) has an original loan-to-value ratio that is (i) greater than 60% and (ii) less than or equal to 80%; and
- (k) is not covered by private mortgage insurance or pool insurance;

*provided, however, that upon the refinancing of a Reference Obligation under Fannie Mae's High LTV Refinance Option, the resulting refinance mortgage loan (a "**High LTV Refinance Reference Obligation**") will be deemed a Reference Obligation and will be included in the Reference Pool in replacement of the original Reference Obligation. For a description of the High LTV Refinance Option, see "*Loan Acquisition Practices and Servicing Standards — High LTV Refinance Option*" in this Offering Memorandum.*

Characteristics of the Reference Obligations

The Reference Obligations are expected to have the approximate characteristics set forth below as of November 30, 2019 (the "**Cut-off Date**"). Whenever reference is made in this Offering Memorandum to the characteristics of the Reference Obligations or to a percentage of the Reference Obligations, unless otherwise noted, that reference is based on the aggregate principal balance of the applicable Reference Obligations as of the Cut-off Date.

The figures below are approximate and may not correspond exactly to the related figures in Appendix A to this Offering Memorandum due to rounding differences.

Selected Reference Obligation Data as of the Cut-off Date

| | Range or Total | Average or Weighted Average |
|--|-------------------------|------------------------------------|
| Number of Reference Obligations | 105,274 | — |
| Aggregate Original Principal Balance | \$29,330,684,000 | — |
| Original Principal Balance | \$13,000 to \$1,397,000 | \$278,613 |
| Cut-off Date Balance | \$29,003,350,855 | — |
| Unpaid Principal Balance | \$5,208 to \$1,388,337 | \$275,503 |
| Gross Mortgage Rate | 2.875% to 6.750% | 4.280% |
| Remaining Term to Stated Maturity (months) | 236 to 358 months | 356 months |
| Original Term (months) | 241 to 360 months | 359 months |
| Loan Age (months) | 2 to 17 months | 4 months |
| Original Loan-to-Value Ratio | 61.00% to 80.00% | 75.44% |
| Original Combined Loan-to-Value Ratio | 61.00% to 97.00% | 75.86% |
| Debt-to-Income Ratio | 0%* to 50% | 36% |
| Credit Score | 620 to 832 | 750 |
| Latest Maturity Date | September 2049 | — |

* Indicates a number that is greater than 0.00% but less than 0.50%

Top Five Geographic Concentration of Mortgage Loans By State

| | |
|----------|--------|
| CA | 21.34% |
| TX..... | 6.44% |
| CO | 5.54% |
| FL | 5.43% |
| WA | 5.02% |

Top Five Geographic Concentration of Mortgage Loans By Zip Code

| | |
|-------------|-------|
| 80134 | 0.20% |
| 80016 | 0.16% |
| 92336 | 0.13% |
| 85383 | 0.11% |
| 95747 | 0.11% |

The characteristics of the Reference Obligations will change from time to time to reflect subsequent scheduled payments, prepayments, Credit Events and Modification Events with respect to such Reference Obligations. In addition, the characteristics of the Reference Obligations may change after the issuance of the Notes to reflect the removal of Reference Obligations from the Reference Pool.

Reference Pool Removals

A Reference Obligation will be removed from the Reference Pool upon the occurrence of any of the following: (i) the Reference Obligation becomes a Credit Event Reference Obligation; (ii) the Reference Obligation is paid in full (except as provided below with regard to a refinancing under the High LTV Refinance Option); (iii) the Reference Obligation is seized pursuant to an eminent domain proceeding with respect to the underlying mortgage loan; (iv) the related loan seller or servicer repurchases the Reference Obligation, enters into a full indemnification agreement with Fannie Mae with respect to the Reference Obligation or pays a fee in lieu of repurchase with respect to the Reference Obligation; (v) Fannie Mae elects to sell (A) a delinquent Reference Obligation that is less than 12 months delinquent at the time it is offered for sale or (B) a Reference Obligation that previously had been seriously delinquent and is current at the time it is offered for sale; (vi) Fannie Mae determines that as a result of a data correction the Reference Obligation does not meet the Eligibility Criteria specified in the following paragraph; (vii) the party responsible for the representations and warranties with respect to the Reference Obligation was granted relief by Fannie Mae from liability for potential breaches of specified Eligibility Defects at the time Fannie Mae acquired the Reference Obligation and an Eligibility Defect is identified that could otherwise have resulted in a repurchase but for the aforementioned relief, provided that the Eligibility Defect is identified on or before the 36th month following the date of Fannie Mae's acquisition of the Reference Obligation; or (viii) the party responsible for the representations and warranties and/or servicing obligations or liabilities with respect to the Reference Obligation (A) has declared bankruptcy or has been put into receivership or (B) has otherwise been relieved of such obligations or liabilities by operation of law or by agreement, and an Eligibility Defect is identified that could otherwise have resulted in a repurchase. A Reference Obligation that undergoes a temporary or permanent modification will not be removed from the Reference Pool if it does not otherwise meet any of the criteria for a removal set forth in the prior sentence. For the avoidance of doubt, Fannie Mae will not request the repurchase of any Reference Obligation with minor technical violations, minor data corrections or minor missing documentation if Fannie Mae determines that the Reference Obligation otherwise satisfies Fannie Mae's eligibility and underwriting criteria.

Reference Obligations will be removed from the Reference Pool if a data change occurs that causes a Reference Obligation to no longer meet one or more of the criteria set forth in clauses (a), (f), (g), (j) and (k) of the definition of Eligibility Criteria.

The removal of any Reference Obligation from the Reference Pool as described above is referred to as a "**Reference Pool Removal**"; *provided, however*, that the removal of a Reference Obligation from the Reference Pool as a result of a refinancing under Fannie Mae's High LTV Refinance Option will not constitute a "Reference Pool Removal."

A Reference Obligation that becomes subject to an Origination Rep and Warranty Settlement subsequent to the Cut-off Date may be removed from the Reference Pool by Fannie Mae at any time in its sole discretion, provided that the aggregate unpaid principal balance of the Reference Obligations so removed during any single Reporting Period does not result in a reduction of the Class Notional Amount of any Reference Tranche in excess of 1.00% of the Class Notional Amount thereof immediately prior to such reduction. The removal of any Reference Obligation from the Reference Pool as described above will be treated as a "Reference Pool Removal"; provided, however, that the removal of a Reference Obligation from the Reference Pool as a result of a refinancing under Fannie Mae's High LTV Refinance Option as described below will not constitute a "Reference Pool Removal."

When a Reference Obligation becomes subject to a Reference Pool Removal (except in the case of a Reference Obligation that becomes a Credit Event Reference Obligation), the unpaid principal balance of such Reference Obligation will be allocated to the Reference Tranches as *Unscheduled Principal*.

If a Reference Obligation meeting the High LTV Refinance Hold Criteria (defined below) is paid in full, the Reference Obligation will not be removed from the Reference Pool until the earlier of (i) the date Fannie Mae is able to confirm whether such payment in full was made in connection with the High LTV Refinance Option and (ii) the date that is 180 days following such payment in full (the earlier of (i) and (ii), the "**Release Date**").

On the Release Date, the following will apply:

- if Fannie Mae confirms that the payment in full was made in connection with the High LTV Refinance Option, the original Reference Obligation will be removed from the Reference Pool and the resulting High LTV Refinance Reference Obligation will be included in the Reference Pool as a replacement of the original Reference Obligation (which removal and replacement will not constitute a Reference Pool Removal);
- if Fannie Mae confirms that the payment in full was not made in connection with the High LTV Refinance Option, the related Reference Obligation will be removed from the Reference Pool (which removal will constitute a Reference Pool Removal); and
- if neither such confirmation can be made, the related Reference Obligation will be removed from the Reference Pool (which removal will constitute a Reference Pool Removal).

A Reference Obligation meets the "**High LTV Refinance Hold Criteria**" if it (i) was originated on or after October 1, 2017, (ii) was originated at least 15 months prior to the date it was paid in full, (iii) had no 30-day delinquency in the six-month period immediately preceding the date it was paid in full, and no more than one 30-day delinquency in the 12-month period immediately preceding the date it was paid in full and (iv) is secured by a mortgaged property with a current estimated property value that is reasonably believed by Fannie Mae to result in eligibility under the High LTV Refinance Option. See "*Loan Acquisition Practices and Servicing Standards — High LTV Refinance Option*" for a description of program eligibility criteria.

See "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Senior Reduction Amount and Subordinate Reduction Amount*" for a description of how Reference Pool Removals impact the Notes. See "*Loan Acquisition Practices and Servicing Standards — Quality Control*" for a description of how defects or deficiencies with respect to a Reference Obligation may be discovered through Fannie Mae's quality control process.

As changes to the Reference Pool occur, such changes may materially alter the Reference Obligation characteristics shown above as well as the weighted average lives and yields to maturity of the Notes.

Additional information on the Reference Pool appears under "*The Reference Obligations*" and Appendix A.

Prepayment and Yield Considerations

The yield to maturity on each Class of Notes will be sensitive to, among other factors, the rate and timing of principal payments on the Reference Obligations (which will be affected by prepayments, removals of Reference

Obligations, and Credit Events and Modification Events on the Reference Obligations). As a result, the yield on the Notes may fluctuate significantly:

- In general, yields on the Notes are sensitive to the rate and timing of Credit Events and Modification Events on the Reference Obligations (and the severity of losses with respect thereto), as (i) Credit Events and Modification Events may result in Tranche Write-down Amounts that are allocable to reduce the Class Principal Balances or Class Notional Amounts, as applicable, of the Notes and (ii) Modification Events on the Reference Obligation may reduce the interest due on the Notes, in each case as described under "*Description of the Notes—Hypothetical Structure and Calculations with Respect to the Reference Tranches.*"
- If investors purchase Notes at a premium and principal payments on the Reference Obligations occur at a rate faster than such investors assumed, such investors' actual yield to maturity will be lower than anticipated and such investors may not recover their entire investment in the Notes.
- Conversely, if investors purchase Notes (other than Interest Only RCR Notes) at a discount, and principal payments on the Reference Obligations occur at a rate slower than such investors assumed, such investors' actual yield to maturity will be lower than anticipated.

The yield to maturity on the floating rate Notes will be sensitive to changes in the rate of One-Month LIBOR. In addition, the yield to maturity of the Notes will be increasingly sensitive to the level and timing of Credit Events and Modification Events on the Reference Obligations (and the severity of losses realized with respect thereto) because the aggregate amount of all Tranche Write-down Amounts with respect to the Classes are allocated *first*, to reduce any Overcollateralization Amount for such Payment Date, until the Overcollateralization Amount is reduced to zero and, *second*, to reduce the Class Notional Amount of each Class of Reference Tranches in the following order of priority, in each case, until the Class Notional Amount is reduced to zero:

first, to reduce to zero the Class 1B-2H Reference Tranche;

second, to reduce to zero the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts;

third, to reduce to zero the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts;

fourth, to reduce to zero the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts;

fifth, to reduce to zero the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts;

sixth, to reduce to zero the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts; and

seventh, to reduce to zero the Class Notional Amount of the Class 1A-H Reference Tranche (up to the amount of any remaining unallocated Tranche Write-down Amounts *less* the amount attributable to clause (d) of the definition of "Principal Loss Amount").

Any such Tranche Write-down Amounts will be allocated, in the case of each Class, after allocation of the Senior Reduction Amount and Subordinate Reduction Amount. Any such Tranche Write-down Amounts allocated to reduce the Class Notional Amount of a Reference Tranche will result in a corresponding reduction in the Class Principal Balance of the related Class of Notes, in each case, until the aggregate Tranche Write-down Amounts allocated to each such Reference Tranche reduces its Class Notional Amount to zero. As such:

- because the Class 1B-1 Reference Tranche is subordinate to the Class 1M-1, Class 1M-2A, Class 1M-2B and Class 1M-2C Reference Tranches, the Class 1B-1 Notes will be more sensitive than the Class

1M-1, Class 1M-2A, Class 1M-2B and Class 1M-2C Notes to Tranche Write-down Amounts after the Class Notional Amount of the Class 1B-2H Reference Tranche is reduced to zero;

- because the Class 1M-2C Reference Tranche is subordinate to the Class 1M-1, Class 1M-2A and Class 1M-2B Reference Tranches, the Class 1M-2C Notes will be more sensitive than the Class 1M-1, Class 1M-2A and Class 1M-2B Notes to Tranche Write-down Amounts after the Class Notional Amounts of the Class 1B-2H and Class 1B-1 Reference Tranches are reduced to zero;
- because the Class 1M-2B Reference Tranche is subordinate to the Class 1M-1 and Class 1M-2A Reference Tranches, the Class 1M-2B Notes will be more sensitive than the Class 1M-1 and Class 1M-2A Notes to Tranche Write-down Amounts after the Class Notional Amounts of the Class 1B-2H, Class 1B-1 and Class 1M-2C Reference Tranches are reduced to zero; and
- because the Class 1M-2A Reference Tranche is subordinate to the Class 1M-1 Reference Tranche, the Class 1M-2A Notes will be more sensitive than the Class 1M-1 Notes to Tranche Write-down Amounts after the Class Notional Amounts of the Class 1B-2H, Class 1B-1, Class 1M-2C and Class 1M-2B Reference Tranches are reduced to zero.

Because the Reference Obligations may be prepaid by the borrowers without penalty at any time, among other factors, it is not possible to predict the exact rate at which investors in the Notes will receive payments of principal.

On the Closing Date, the approximate initial Subordinate Percentage will be 3.95% and will not satisfy the Minimum Credit Enhancement Test until it equals 4.650000%. As a result, all Unscheduled Principal payments with respect to Reference Obligations will be credited to the Class 1A-H Reference Tranche until both the Minimum Credit Enhancement Test and Delinquency Test are met, which will delay payments of principal to the Notes and may affect their yields.

See "*Prepayment and Yield Considerations*".

U.S. Federal Income Tax Consequences

For U.S. federal income tax purposes, the sources of payments on the Notes will be structured as regular interests in one or more real estate mortgage investment conduits (each, a "**REMIC**"). Accordingly, the Issuer will be treated as holding assets in the form of one or more REMIC regular interests for U.S. federal income tax purposes.

The Issuer will make one or more proper and timely elections to treat certain segregated portions of its assets (exclusive of any assets, rights, obligations and arrangements excluded under the Indenture) as one or more REMICs for U.S. federal income tax purposes. For U.S. federal income tax purposes, the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes will represent beneficial ownership of regular interests in a REMIC coupled with rights under a notional principal contract. The arrangement under which the RCR Notes are created will be classified as a grantor trust for U.S. federal income tax purposes. The RCR Notes represent beneficial ownership interests in the applicable Exchangeable Notes for U.S. federal income tax purposes.

See "*Certain U.S. Federal Income Tax Consequences*" in this Offering Memorandum for additional information.

Legal Investment

Investors may be subject to restrictions on investment in the Notes to the extent that their investment activities are subject to investment laws and regulations, regulatory capital requirements or review by regulatory authorities. Prospective investors should consult their legal, tax and accounting advisers for assistance in determining the suitability of and consequences to them of the purchase, ownership and sale of the Notes.

- Prospective investors should be aware that the Notes do not represent an interest in and are not secured by the Reference Pool or any Reference Obligation.

- The Notes will not constitute "mortgage related securities" for purposes of the Secondary Mortgage Market Enhancement Act of 1984, as amended ("**SMMEA**").

See "*Legal Investment*" in this Offering Memorandum for additional information.

Investment Company Act Considerations

In reliance on Section 2(b) of the Investment Company Act, the Issuer has not registered and will not register with the SEC as an investment company under the Investment Company Act.

Volcker Rule Considerations

The Issuer has been structured so as not to constitute a "covered fund" for purposes of the regulations adopted to implement Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, commonly known as the Volcker Rule.

Commodity Pool Considerations

The Issuer is not expected to be considered a "commodity pool" and, therefore, it is expected that there will be no need for a "commodity pool operator" to be registered pursuant to the Commodity Exchange Act. In the event the Issuer is determined to be a "commodity pool" and Fannie Mae does not elect to designate a CAA Early Termination Event in respect of any resulting CAA Trigger Event, the Indenture Trustee will be directed under the Indenture to take reasonable steps to assist Fannie Mae in satisfying any requirements that arise from such a determination and to notify Noteholders of such steps. See "*Risk Factors—Investment Factors and Risks Related to the Notes — Risks Associated with the Commodity Exchange Act*" in this Offering Memorandum.

ERISA Considerations

Fiduciaries or other persons acting on behalf of or using the assets of (i) any employee benefit plan or other arrangement, including an individual retirement account (an "**IRA**"), subject to the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"), Section 4975 of the Internal Revenue Code of 1986, as amended (the "**Code**"), or any foreign, U.S. federal, state or local law which is similar to Title I of ERISA or Section 4975 of the Code (each, a "**Similar Law**") or (ii) an entity which is deemed to hold the assets of such plan or arrangement (each, a "**Plan**"), should carefully review with their legal advisors whether the purchase, holding or disposition of a Note could give rise to a transaction prohibited or not otherwise permissible under ERISA, the Code or Similar Law.

Subject to the considerations and conditions described under "*Certain ERISA Considerations*" in this Offering Memorandum, it is expected that the Notes (other than the Class 1B-1 Notes or RCR Notes for which Class 1B-1 Notes may be exchanged) may be acquired by Plans or persons acting on behalf of, using the assets of or deemed to hold the assets of a Plan. The Class 1B-1 Notes (and RCR Notes for which they may be exchanged) may not be acquired by Plans or using assets of a Plan. See "*Certain ERISA Considerations*" in this Offering Memorandum.

Rating of the Notes

Fannie Mae has engaged Fitch Ratings, Inc. ("**Fitch**") and Kroll Bond Rating Agency, Inc. ("**KBRA**"), each a nationally recognized statistical rating organization ("**NRSRO**") as defined in Section 3(a)(62) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), to rate the Class 1M-1 Notes, Class 1M-2A Notes, Class 1M-2B Notes, Class 1M-2C Notes, Class 1M-2 Notes and certain additional Classes of RCR Notes set forth on Schedule I hereto on the Closing Date. The Notes rated by either or both of these NRSROs are collectively referred to as the "**Rated Notes**". On the Closing Date, the Rated Notes are expected to receive the ratings specified on the cover of this Offering Memorandum and on Schedule I hereto. Fitch and KBRA each will monitor its rating using its normal surveillance procedures and may change or withdraw its assigned rating at any time. No transaction party will be responsible for monitoring any changes to the ratings on the Rated Notes. See "*Risk Factors—Investment Factors and Risks Related to the Notes — A Reduction, Withdrawal or Qualification of the Ratings on the Rated Notes, or the Issuance of an Unsolicited Rating on the Rated Notes, May Adversely Affect the Market Value of Those Notes and/or Limit an Investor's Ability to Resell Those Notes*" in this Offering Memorandum.

The ratings address the likelihood of the timely receipt of payments of interest to which the Holders of the Rated Notes are entitled and the ultimate payment of principal by the Maturity Date. The ratings of the Rated Notes should be evaluated independently from similar ratings on other types of securities. The ratings are not a recommendation to buy, sell or hold the Rated Notes and may be subject to revision or withdrawal at any time by the engaged NRSROs.

In addition, these ratings do not address:

- the likelihood, timing or frequency of prepayments (both voluntary and involuntary) on the Reference Obligations and their impact on interest payments or the degree to which such prepayments might differ from those originally anticipated;
- the possibility that a Noteholder might suffer a lower than anticipated yield;
- the tax treatment of the Rated Notes or the effect of taxes on the payments received;
- the likelihood or willingness of the parties to the respective documents to meet their contractual obligations or the likelihood or willingness of any party or court to enforce, or hold enforceable, the documents in whole or in part;
- an assessment of the yield to maturity that investors may experience; or
- other non-credit risks, including, without limitation, market or liquidity risk.

The ratings take into consideration certain credit risks with respect to the Reference Obligations. However, as noted above, the ratings do not represent an assessment of the likelihood, timing or frequency of principal prepayments (both voluntary and involuntary) on the Reference Obligations, or the degree to which such prepayments might differ from those originally anticipated. In general, the ratings address credit risk and not prepayment risk.

Other NRSROs that Fannie Mae has not engaged to rate the Rated Notes may issue unsolicited credit ratings or commentaries on one or more Classes of the Notes. If any such unsolicited ratings or commentaries are issued, Fannie Mae cannot assure you that they will not be different from the ratings assigned by the engaged NRSROs and, if lower than the engaged NRSROs, whether such unsolicited ratings or commentaries will have an adverse impact on the liquidity, market value and regulatory characteristics of such Notes. Further, a determination by the SEC that either or both of the engaged NRSROs no longer qualifies as an NRSRO or is no longer qualified to rate the Rated Notes, could adversely impact the liquidity, market value and regulatory characteristics of the Rated Notes.

See "*Risk Factors—Investment Factors and Risks Related to the Notes—A Reduction, Withdrawal or Qualification of the Ratings on the Rated Notes, or the Issuance of an Unsolicited Rating on the Rated Notes, May Adversely Affect the Market Value of Those Notes and/or Limit an Investor's Ability to Resell Those Notes,*" "*The Ratings on the Rated Notes May Not Reflect All Risks*" and "*Rating of the Notes*" in this Offering Memorandum for more information regarding the ratings.

Fannie Mae has not engaged any NRSRO to rate the Class 1B-1 Notes (or the related RCR Notes) on the Closing Date and Fannie Mae has no obligation to do so in the future. The absence of ratings on the Class 1B-1 Notes (and the related RCR Notes) may adversely affect the ability of an investor to purchase, finance or retain, or may otherwise impact the liquidity, market value and regulatory characteristics of, these Notes. See "*Risk Factors—Investment Factors and Risks Related to the Notes—The Class 1B-1 Notes Will Not Be Rated by any Engaged NRSRO on the Closing Date*" in this Offering Memorandum.

European Risk Retention

In connection with the European Securitization Rules, Fannie Mae will retain a material net economic interest in the transaction constituted by this Notes issuance of not less than 5%. See "*European Securitization Rules*" and "*Risk Factors—Investment Factors and Risks Related to the Notes—Additional Governmental Actions in the U.S. and Abroad Could Adversely Affect the Market Value of the Notes*" in this Offering Memorandum. For the

avoidance of doubt and notwithstanding the retention of the above-mentioned material net economic interest in the underlying exposure related to this Notes issuance transaction, Fannie Mae is not required to retain credit risk with respect to the Notes under U.S. securities laws and regulations, including Regulation RR under the Exchange Act.

Use of Proceeds

The Issuer will deliver the gross proceeds of the offering of the Notes to the Custodian, which will deposit them in the Cash Collateral Account. From time to time, the Investment Agent will direct the Custodian to invest the proceeds in Eligible Investments pursuant to the terms of the Investment Agency Agreement, as further described herein under "*Risk Factors — Risks Related to Eligible Investments*" and "*The Agreements — The Indenture.*"

RISK FACTORS

General

Listed below are some of the principal risk factors associated with an investment in the Notes. The risk factors relating to Fannie Mae include risks that may affect an investment in and the value of the Notes. You should review all of these risk factors before investing in the Notes. Because each investor has different investment needs and a different risk tolerance, each investor should consult its own financial or legal advisor to determine whether the Notes are a suitable investment. In particular, prospective investors in the Notes should be aware that:

- The risks and uncertainties described below are not the only ones relating to the Notes. Additional risks and uncertainties not presently known to Fannie Mae or that Fannie Mae currently deems to be immaterial may also impair an investment in the Notes. If any of the following risks actually occur, an investment in the Notes could be materially and adversely affected.
- The risks and uncertainties of the RCR Notes reflect the risks and uncertainties of the related Exchangeable Notes that may be exchanged for such RCR Notes, and vice versa. Accordingly, investors in the RCR Notes should consider the risks described herein of the related Exchangeable Notes as if they were investing directly in such Exchangeable Notes, and vice versa.
- This Offering Memorandum contains forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described below and elsewhere in this Offering Memorandum.
- Prospective investors should investigate any legal investment restrictions that may apply to them.
- The Notes are not secured by the Reference Obligations, the mortgaged properties or the borrowers' payments under the Reference Obligations, and Noteholders should not look to the Reference Obligations as a source of payment on the Notes.
- The Notes will not constitute "mortgage related securities" for purposes of SMMEA, and the Notes may be regarded as high-risk, derivative, risk-linked or otherwise complex securities. The Notes should not be purchased by prospective investors who are prohibited from acquiring securities having the foregoing characteristics.
- The Notes are not suitable investments for all prospective investors. The Notes are complex financial instruments. Because the Notes are linked to the Reference Obligations and Reference Tranches established pursuant to the hypothetical structure described in this Offering Memorandum, prospective investors should not purchase any Note unless they or their financial advisors possess the necessary expertise, tools and metrics to analyze the potential risks of the Notes being offered and the information contained in this Offering Memorandum and the documents incorporated by reference.
- Prospective investors should not purchase any Notes unless they understand, and are able to bear, the prepayment, credit, liquidity, market and other risks associated with the Notes.
- Prospective investors should not construe the issuance of the Notes as an endorsement by the Issuer, the Indenture Trustee, Fannie Mae or any other person, with respect to the performance of the Reference Obligations or the Eligible Investments.
- The Notes, including any yield on the Notes, will not be insured or guaranteed by Fannie Mae, the United States or any governmental agency or instrumentality of the United States, or of any other person, and are not debts or obligations of any of the foregoing.
- The Notes will be obligations (or interests in obligations) of the Issuer only and will be payable without recourse to the Issuer except to the extent of the assets of the Issuer, which the Issuer will pledge on the Closing Date to the Indenture Trustee for the benefit of the Secured Parties.
- The Issuer's obligations to pay Return Amounts to Fannie Mae under the Collateral Administration Agreement upon the occurrence of certain Credit Events or Modification Events that result in the

allocation of Tranche Write-down Amounts will reduce amounts available for payment of principal on the Notes.

- Although investment earnings on Eligible Investments in the Cash Collateral Account and distributions on the IO Q-REMIC Interest will be deposited in the Note Distribution Account prior to each Payment Date, such amounts may be less than the amounts needed to pay the full amount of interest payable on the Notes. If Fannie Mae does not make payments required under the Collateral Administration Agreement or the Capital Contribution Agreement, the Issuer may be unable to pay the full amount of interest payable on the Notes.
- If Fannie Mae fails to pay any Return Reimbursement Amount, or any amount required to be paid by it in respect of the Transfer Amount or Capital Contribution Amount due on a Remittance Date, there may be insufficient funds available to pay principal or interest, as applicable, on the Notes for the related Payment Date.

Investors should exercise particular caution if their circumstances do not permit them to hold the Notes until maturity.

Special Risks Associated with the Collateral Administration Agreement and the Capital Contribution Agreement

The Notes are Subordinate to Certain Payments Payable to Fannie Mae

Under the Collateral Administration Agreement, on each Payment Date, the Issuer may be required to pay to Return Amounts to Fannie Mae equal to the aggregate of Tranche Write-down Amounts, if any, allocated to the Notes on such Payment Date (before giving effect to payments made on such Payment Date). If any Return Amounts are payable to Fannie Mae on a Payment Date, the Issuer will make such payment prior to payments to Noteholders from the Note Distribution Account. As a result, the amounts available to make payments of principal on the Notes will be reduced to the extent of any payments of Return Amounts to Fannie Mae.

Payments from Fannie Mae are not Guaranteed by the United States or any Other Person

The Notes are not guaranteed by the United States or any agency or instrumentality of the United States. Moreover, unlike previous "credit risk transfer" notes issued by Fannie Mae, the Notes are not debt obligations of Fannie Mae.

As described in this Offering Memorandum, the occurrence of certain Credit Events or Modification Events on the Reference Obligations could result in write-downs of the Class Principal Balances of the Notes to the extent losses are realized on such Reference Obligations as a result of these events. In addition, the interest entitlement of the Notes may be subject to reduction due to certain Modification Events as further described in this Offering Memorandum. The Issuer is required to pay Fannie Mae Return Amounts in respect of Tranche Write-down Amounts and Fannie Mae is required to pay Return Reimbursement Amounts to the Issuer to the extent of any Tranche Write-up Amounts. The failure of Fannie Mae to pay Return Reimbursement Amounts to the Issuer on a Remittance Date could result in a shortfall of funds available to pay principal on the Notes on the related Payment Date.

Fannie Mae is obligated to pay Transfer Amounts under the Collateral Administration Agreement (it being understood that the Trust Estate Yield for a Payment Date will be deemed to satisfy, up to the amount of such Trust Estate Yield, Fannie Mae's Transfer Amount payment obligation for the related Remittance Date) and Capital Contribution Amounts under the Capital Contribution Agreement. The obligations of Fannie Mae to make these payments under the Collateral Administration Agreement and the Capital Contribution Agreement are unsecured contractual obligations of Fannie Mae. Noteholders bear the risk that Fannie Mae may fail to pay any such amounts due to the Issuer for a Remittance Date, which could result in a shortfall of funds available to pay interest on the Notes on the related Payment Date.

Fannie Mae is Permitted to Assign its Obligation to Pay Capital Contribution Amounts to a Third Party

Upon satisfaction of the Rating Agency Condition, Fannie Mae is permitted to assign its obligation to pay Capital Contribution Amounts to a third party. Upon any such assignment, Noteholders would be exposed to the credit risk of such third party, and Noteholders could fail to receive the full amount of principal or interest payable

on a Payment Date in the event such third party assignee does not pay the Investment Liquidation Contribution portion or the LIBOR Component Contribution portion of the Capital Contribution Amount, if any, for such date. In addition, assignment to a third party assignee may negatively impact the value and liquidity of the Notes in the secondary market.

The Notes are Subject to Event of Default or Redemption in the Event of an Early Termination under the Collateral Administration Agreement and the Capital Contribution Agreement

The Collateral Administration Agreement and the Capital Contribution Agreement are subject to early termination on the CAA Early Termination Date.

The CAA Early Termination Date will be the Payment Date following the occurrence of any of the following CAA Early Termination Events:

- final SEC determination that the Issuer must register as an investment company under the Investment Company Act;
- acceleration of the maturity of the Notes under the Indenture; or
- failure of Fannie Mae to make a required payment under the Collateral Administration Agreement, which failure continues unremedied for 30 days following receipt of written notice of such failure.

Any termination of the Collateral Administration Agreement and the Capital Contribution Agreement as a result of the occurrence of a CAA Early Termination Event will constitute an Event of Default under the Indenture.

Additionally, Fannie Mae may in its sole discretion designate as the CAA Early Termination Date the Payment Date following the occurrence of any of the following CAA Trigger Events:

- accounting, insurance or regulatory changes after the Closing Date that, in Fannie Mae's reasonable determination, have a material adverse effect on Fannie Mae;
- legal, regulatory or accounting requirements or guidelines that, in Fannie Mae's reasonable determination, materially affect the financial position, accounting treatment or intended benefit with respect to Fannie Mae;
- a requirement, in Fannie Mae's reasonable determination, after consultation with external counsel (which will be a nationally recognized and reputable law firm), that Fannie Mae or any other transaction party must register as a "commodity pool operator" under the Commodity Exchange Act solely because of its participation in the transaction;
- material impairment of Fannie Mae's rights under the Collateral Administration Agreement due to the amendment or modification of any Transaction Document; or
- failure of the Issuer to make a required payment under the Collateral Administration Agreement, which failure continues unremedied for 30 days following receipt of written notice of such failure.

Investors should consider that if the Collateral Administration Agreement and the Capital Contribution Agreement are terminated prior to the Maturity Date as a result of the occurrence of a CAA Trigger Event, the Notes will be redeemed under the Indenture. Such early redemption may occur earlier, and may occur significantly earlier, than the Maturity Date and investors will bear the reinvestment risk of any payment received from such early redemption.

See "*The Agreements — The Collateral Administration Agreement*" and "*— The Capital Contribution Agreement.*"

Risks Relating to the Notes Being Linked to the Reference Obligations

The Notes Bear the Risk of Credit Events and Modification Events on the Reference Obligations

Principal and interest on the Notes will be paid by the Issuer solely from assets of the Issuer and, in the case of principal, will be paid solely from amounts available after payments of Return Amounts to Fannie Mae, if any. The Notes are not backed by the Reference Obligations and payments on the Reference Obligations (other than certain interest payments from the Reference Obligations distributable in respect of the IO Q-REMIC Interest) will not be available to make payments on the Notes, and Noteholders will have no rights to vote or exercise any other rights or remedies with respect to the Reference Obligations. However, each Class of Notes will have credit exposure to the Reference Obligations, and the yield to maturity on the Notes will be directly related to the amount and timing of Credit Events and Modification Events on the Reference Obligations and the severity of losses realized with respect thereto, any prepayments by the borrowers of the Reference Obligations and any removals of Reference Obligations from the Reference Pool due to eminent domain proceedings involving the seizure of any such Reference Obligation.

A Credit Event or Modification Event may occur due to one or more of a wide variety of factors, including a decline in real estate values, and adverse changes in a borrower's financial condition and a borrower's employment. A decline in real estate values or economic conditions nationally or in the regions where the related mortgaged properties are concentrated may increase the risk of Credit Events and Modification Events on the Reference Obligations as well as the severity of losses realized with respect thereto. In addition, Reference Obligations secured by second homes and investment properties may have a higher risk of being subject to a Credit Event or Modification Event than those secured by primary residences. Furthermore, as loan-to-value ratios increase, certain borrowers may find themselves with limited or no equity in the related mortgaged properties, which may in turn lead to increased rates of delinquency. In such event, the rate at which Reference Obligations experience Modification Events or become Credit Event Reference Obligations may increase and investor losses may result.

Following a Credit Event or Modification Event with respect to a Reference Obligation, pursuant to the hypothetical structure, a Tranche Write-down Amount on the Notes may be applied to reduce the Class Notional Amount of the most subordinate Reference Tranche that still has a Class Notional Amount greater than zero. Because the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes correspond to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Reference Tranches, respectively, any Tranche Write-down Amounts allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche will result in a corresponding decrease in the Class Principal Balance of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount that is allocable to the related Exchangeable Notes will be allocated to decrease the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero). Any such reductions in Class Principal Balance as described in this paragraph will result in a loss of all or a portion of the investor's investment in the related Notes. Additionally, allocations of Modification Loss Amounts following Modification Events may result in reductions in the Interest Payment Amounts on the Notes, as further described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Modification Loss Amount.*" As such, a Class of Notes will be more sensitive than each more senior Class of Notes to Tranche Write-down Amounts after the Class Notional Amount of each more subordinate Reference Tranche is reduced to zero.

Delay in Liquidation May Reduce Liquidation Proceeds

Substantial delays in payments of principal on the Notes could be encountered in connection with the liquidation of delinquent Reference Obligations. Delays in foreclosure proceedings may occur in certain states experiencing increased volumes of delinquent mortgage loans. Further, reimbursement of servicing advances (exclusive of any delinquency advances) made by the loan sellers or servicers and liquidation expenses such as legal fees, real estate taxes, servicing and maintenance and preservation expenses will reduce Net Liquidation Proceeds and could result in greater losses being allocated to the Notes.

The Timing of Credit Events and Modification Events (and the Severity of Losses Realized with Respect Thereto) May Affect Yields on the Notes

The timing of the occurrence of Credit Events and Modification Events with respect to Reference Obligations, which may result in Tranche Write-down Amounts and reduced Interest Payment Amounts, may impact the return earned on the Notes. The timing of the occurrence of Credit Events and Modification Events with respect to Reference Obligations may significantly affect the actual yield on the Notes, even if the average rates of the Credit Event occurrences and Modification Event occurrences are consistent with your expectations. In general, the earlier the occurrence of Credit Events and Modification Events the greater the effect on your yield to maturity. The timing of Tranche Write-down Amounts and the allocation of Modification Loss Amounts could be affected by one or more of a wide variety of factors, including the creditworthiness of the related borrowers, the related borrowers' willingness and ability to continue to make payments, and the timing of market economic developments, as well as legislation, legal actions or programs that allow for the modification of mortgage loans or forbearance or for borrowers to obtain relief through bankruptcy or other avenues. Any Tranche Write-down Amounts allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche will result in a corresponding decrease in the Class Principal Balance of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount that is allocable to the related Exchangeable Notes will be allocated to decrease the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero). Any such allocations will cause an investment loss to the affected Noteholders as well as a reduction in the interest paid on those Notes as a result of the reduced Class Principal Balance or Class Notional Amount, as applicable. Therefore, the timing of Tranche Write-down Amounts, and not just the overall level of such Tranche Write-down Amounts, will impact the return on the Notes. Additionally, allocations of Modification Loss Amounts following Modification Events may result in reductions in the Interest Payment Amounts on the Notes, as further described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Modification Loss Amount.*"

Further, to the extent that Credit Events occur and are later reversed resulting in the allocation of Tranche Write-up Amounts to write up the Class Notional Amounts of the Reference Tranches, during the period in which the Tranche Write-up Amounts had not yet occurred, the Minimum Credit Enhancement Test and the Delinquency Test may not be satisfied due to such Credit Events. As a result, any Unscheduled Principal that may otherwise have been allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C, Class 1B-1 and/or Class 1B-2H Reference Tranches during such period will instead be allocated to the Class 1A-H Reference Tranche, thereby reducing the amount of principal that the Issuer is required to pay to the Noteholders during such period.

Loan Seller/Servicer Willingness to Repurchase Reference Obligations on a Timely Basis May Affect Yields on the Notes

Credit Events may ultimately be reversed and/or make-whole payments may be collected from loan sellers, resulting in Tranche Write-up Amounts that increase the Class Notional Amounts of the related Reference Tranches. The timing of reversals of Credit Events or collection of make-whole payments resulting in Tranche Write-up Amounts will also affect the yield on the Notes. A loan seller's or servicer's willingness, or the amount of time it may take, to repurchase a Reference Obligation, agree to a full indemnification of Fannie Mae with respect to a Reference Obligation, provide a make-whole payment with respect to a Reference Obligation or pay a fee in lieu of repurchase with respect to a Reference Obligation will impact the rate at which Tranche Write-up Amounts are allocated to increase the Class Notional Amounts of the related Reference Tranches. This process could result in delays in allocation, or ultimately result in no allocation, of Tranche Write-up Amounts. In addition, certain actions related to the pursuit of remedies will be subject to Fannie Mae's discretion and Fannie Mae may have interests that conflict with those of the Noteholders. Any delay or failure in the pursuit of such remedies with respect to any Reference Obligations could delay or eliminate potential Tranche Write-up Amounts. Finally, to the extent that Credit Events occur and are later reversed resulting in the allocation of Tranche Write-up Amounts to increase the Class Notional Amounts of the related Reference Tranches, during the period in which the Tranche Write-up Amounts had not yet been allocated, the Minimum Credit Enhancement Test may not be satisfied due to such Credit Events. As a result, any Unscheduled Principal that may otherwise have been allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C, Class 1B-1 and/or Class 1B-2H Reference Tranches during such period will instead be allocated to the Class 1A-H Reference Tranche, as applicable, thereby reducing the amount of principal that would have been payable to the Noteholders during such period.

Fannie Mae's Limited Review of a Sample of a Small Percentage of the Reference Obligations May Not Reveal All Aspects That Could Lead to Credit Events and Modification Events

On an ongoing basis, Fannie Mae performs certain limited post-purchase loan review procedures with respect to the underwriting and eligibility of the loans Fannie Mae acquires. Out of all mortgage loans that met the Preliminary Eligibility Criteria at the time Fannie Mae acquired them between October 1, 2018 and August 31, 2019 and had an original loan-to-value ratio that is (i) greater than 60% and (ii) less than or equal to 80%, Fannie Mae selected 2,166 loans for either a random or discretionary post-purchase loan review, or approximately 1.99% by loan count, including 2,067 mortgage loans included in the Reference Pool. As of December 19, 2019, the Fannie Mae quality control process revealed Loan File or Underwriting Errors and possible Eligibility Defects at a rate of approximately 0.69%. Of the 2,166 mortgage loans, 363 mortgage loans remain subject to Fannie Mae's post-purchase quality control process as of December 19, 2019. Some of these mortgage loans may be determined to have Eligibility Defects. If the 363 mortgage loans were excluded from the number of mortgage loans selected for Fannie Mae's post-purchase quality control review selections, the total percentage of mortgage loans identified with Eligibility Defects would be 0.83%. Accordingly, if the rate of Loan File or Underwriting Errors and possible Eligibility Defects on the entire Initial Cohort Pool were 0.83% and such errors or defects increase the likelihood of a Credit Event or Modification Event, then investors may fail to recover their initial investment in the Notes. See "*The Reference Obligations — Results of Fannie Mae Quality Control*". Fannie Mae's reviews were not conducted specifically in connection with the Reference Pool, but with respect to a sample of all its mortgage loans in the normal course of Fannie Mae's quality control processes. In conducting Fannie Mae's review procedures, Fannie Mae relied on information and documentation delivered to Fannie Mae by the respective loan sellers and on additional information and resources otherwise available to Fannie Mae. Fannie Mae's review procedures were designed to discover certain significant discrepancies and possible instances of non-compliance with Fannie Mae's underwriting and eligibility guidelines of the sample of the mortgage loans Fannie Mae reviewed. While a subset of loans was selected for complete reviews of certain loan criteria, Fannie Mae's procedures did not constitute a re-underwriting of the mortgage loans, were not designed or intended to discover every possible defect, and may not be consistent with the type and scope of review that any individual investor would deem appropriate. In addition, to the extent that Fannie Mae's limited review did reveal factors that could affect how the Reference Obligations may perform, Fannie Mae may have incorrectly assessed the potential significance of the defects that Fannie Mae identified or that Fannie Mae failed to identify. There can be no assurance that any review process Fannie Mae conducted would have uncovered relevant facts that could be indicative of how any reviewed Reference Obligations will perform. Investors should note that Fannie Mae undertook this limited loan file review with respect to only a small sample of the Reference Obligations and did not undertake any loan file review for the remaining Reference Obligations. The selection of the mortgage loans that Fannie Mae reviewed was made by Fannie Mae and not by any independent third party.

Furthermore, the scope of Fannie Mae's limited reviews does not include tests to validate whether or not the originators abided by each applicable federal, state and local law and regulation, such as consumer protection laws, in originating the loans, other than a limited subset of those laws where Fannie Mae may face legal liability for the originators' noncompliance. Fannie Mae relies on representations and warranties from the loan sellers that the Reference Obligations were originated in compliance with all applicable federal, state and local laws and regulations of any federal regulatory agencies that are responsible for enforcing laws that protect borrowers in this regard. Fannie Mae relies on agreements with the servicers that the Reference Obligations are being serviced in compliance with all applicable federal, state and local laws and regulations of any federal regulatory agencies that are responsible for enforcing laws that protect borrowers in this regard. If a Credit Event or Modification Event occurs with respect to a Reference Obligation and Fannie Mae performs a review of such Reference Obligation, Fannie Mae does not have procedures in place to review the Reference Obligation to determine whether a breach of representations and warranties may have occurred with respect to compliance with each applicable federal, state and local law and regulation. As a result, investors should note that to the extent a Credit Event or Modification Event with respect to a Reference Obligation occurs and the Reference Obligation does not comply with all applicable laws, Fannie Mae may not discover a breach related thereto.

Fannie Mae's Quality Control and Quality Assurance Processes are Not Designed to Protect Noteholders

As part of Fannie Mae's ongoing quality control, Fannie Mae undertakes quality control reviews and quality assurance reviews of a small number of the mortgage loans that loan sellers deliver to Fannie Mae. These processes are intended to determine, among other things, the accuracy of the representations and warranties made by the loan sellers in respect of the mortgage loans that are sold to Fannie Mae. While investors may benefit from the quality control and quality assurance processes to the extent that any Credit Event Reference Obligation becomes a

Reversed Credit Event Reference Obligation, resulting in a Tranche Write-up Amount, Fannie Mae's quality control and quality assurance processes are not designed or intended to protect Noteholders. In addition, Fannie Mae has considerable discretion in determining whether to pursue remedies, and what type of remedy to pursue, relating to breaches of representations and warranties identified through the quality control and quality assurance processes and have no express obligation to do so. Furthermore, certain loan seller representations and warranties will be subject to "sunset" upon satisfaction of specified performance and other conditions, and may also be subject to relief under the Rep and Warrant Framework. See "*Loan Acquisition Practices and Servicing Standards — Quality Control — Fannie Mae Quality Control Policy and Process*" for a description of these features. Moreover, Fannie Mae may at any time change its quality control and quality assurance processes in a manner that is detrimental to the Noteholders. See "*Loan Acquisition Practices and Servicing Standards — Quality Control*" in this Offering Memorandum.

Fannie Mae's Review of Reference Obligations That Become Credit Event Reference Obligations May Not Result in Reversed Credit Event Reference Obligations

If a Credit Event occurs with respect to a Reference Obligation and Fannie Mae determines through its quality control process that a breach of representations or warranties exists with respect to such Reference Obligation, Notes that previously had their Class Principal Balances reduced as a result of being allocated Tranche Write-down Amounts may be entitled to have their Class Principal Balances increased to the extent of any resulting Tranche Write-up Amounts that are allocated to the related Class of Notes as described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Tranche Write-up Amounts*". However, as described under "*Loan Acquisition Practices and Servicing Standards — Quality Control*", Fannie Mae will not examine through its quality control process every Reference Obligation for which a Credit Event occurs and it is possible that Reference Obligations with Loan File or Underwriting Errors may go undetected despite being subjected to Fannie Mae's quality control process. In addition, Holders of the Notes will have no right to direct Fannie Mae to perform a review of any Reference Obligation that becomes subject to a Credit Event. See "*— Investors Have No Direct Right to Enforce Remedies*" below. Furthermore, Fannie Mae will have the sole discretion to determine (i) whether to undertake such review, (ii) upon undertaking such review, whether Fannie Mae deems any Loan File or Underwriting Errors to exist, and (iii) upon concluding that a Loan File or Underwriting Error exists, whether to require the loan seller or servicer to repurchase the related Reference Obligation, agree to a full or partial indemnification of Fannie Mae in respect of the Reference Obligation, or pay a fee in lieu of repurchase in respect of the Reference Obligation or other remedy. Fannie Mae notes that only repurchases, indemnifications in full or fee payments in lieu of repurchases will result in Reference Obligations becoming subject to Reference Pool Removals; partial indemnifications will not result in Reference Pool Removals.

It should be noted that Fannie Mae does not differentiate between the Reference Obligations and mortgage loans that are not in the Reference Pool in pursuing remedies and in determining which mortgage loans are reviewed pursuant to Fannie Mae's quality control process. In addition, even if Fannie Mae were to determine that an Eligibility Defect exists with respect to a Reference Obligation, Fannie Mae cannot assure you that Fannie Mae will require the related loan seller or servicer to repurchase the related Reference Obligation or agree to a full indemnification or pay a fee in lieu of repurchase in respect thereof. Moreover, to the extent Fannie Mae does require any such action, Fannie Mae cannot assure you that the related loan seller or servicer will ultimately repurchase such Reference Obligation, agree to a full or partial indemnification or pay a fee in lieu of repurchase. The failure of the related loan seller or servicer to so repurchase, agree to a full indemnification or pay a fee in lieu of repurchase may result in such Reference Obligation not being subject to a Reference Pool Removal. Furthermore, certain loan seller representations and warranties will be subject to "sunset" upon satisfaction of specified performance and other conditions, and may also be subject to relief under the Rep and Warrant Framework. See "*Loan Acquisition Practices and Servicing Standards — Quality Control — Fannie Mae Quality Control Policy and Process*" in this Offering Memorandum for a description of these features. Investors in the Notes are encouraged to make their own determination as to the extent to which they place reliance on Fannie Mae's limited loan review procedures.

Investors should note that with respect to any Reference Obligation that is removed from the Reference Pool as a result of becoming a Credit Event Reference Obligation and as to which Fannie Mae subsequently discovers that the applicable servicer breached its servicing obligations, the servicer may ultimately repurchase such Reference Obligation, agree to a full or partial indemnification or pay a fee in lieu of repurchase, among other possible remedies. Any such repurchase, full indemnification or fee payment in lieu of repurchase by the servicer will result in a Tranche Write-up Amount being allocated to the related Reference Tranches (and which may be allocated to the

Notes). However, under no circumstances will compensatory fees, partial indemnification or other arrangements with the servicer result in a Tranche Write-up Amount.

Discovery of Certain Data Corrections May Not Result in a Repurchase of the Related Reference Obligation

Reference Obligations will be removed from the Reference Pool if a data correction occurs that causes a Reference Obligation to no longer meet certain specified criteria within the definition of Eligibility Criteria as further described in "*Summary of Terms — The Reference Pool — Characteristics of the Reference Obligations*". However, Fannie Mae will not request the repurchase of any Reference Obligation with a data correction if Fannie Mae determines that the Reference Obligation otherwise satisfies Fannie Mae's eligibility and underwriting criteria based on the updated loan data. This is the case even if the data correction results in a more adverse risk profile for the Reference Obligation in question. In addition, Fannie Mae will not request the repurchase of any Reference Obligation with minor technical violations or minor missing documentation if Fannie Mae determines that the Reference Obligation otherwise satisfies Fannie Mae's eligibility and underwriting criteria. Any reduction in repurchases of Reference Obligations that have experienced Credit Events or Modification Events would reduce the occurrence of Tranche Write-up Amounts and, in turn, increase the risk of losses to Noteholders.

Limited Scope and Size of Review of the Mortgage Loans in the Reference Pool May Not Reveal Aspects of the Reference Obligations That Could Lead to Credit Events and Modification Events

In connection with the issuance from time to time of Connecticut Avenue Securities, Fannie Mae engages third party diligence providers to undertake certain limited loan review procedures with respect to various aspects of mortgage loans Fannie Mae acquires in specified calendar periods. A very limited number of mortgage loans (999 by loan count) were included in the diligence sample for the fourth calendar quarter 2018 review. The 999 loans in the fourth calendar quarter 2018 review diligence sample were selected from a broader population of 5,386 loans (all of which met the Preliminary Eligibility Criteria); of those 999 loans, none are in the Reference Pool. A very limited number of mortgage loans (999 by loan count) were included in the diligence sample for the first calendar quarter 2019 review. The 999 loans in the first calendar quarter 2019 review diligence sample were selected from a broader population of 5,491 loans (all of which met the Preliminary Eligibility Criteria); of those 999 loans, none are in the Reference Pool. A very limited number of mortgage loans (999 by loan count) were included in the diligence sample for the second calendar quarter 2019 review. The 999 loans in the second calendar quarter 2019 review diligence sample were selected from a broader population of 5,503 loans (all of which met the Preliminary Eligibility Criteria); of those 999 loans, 19 are in the Reference Pool. A very limited number of mortgage loans (666 by loan count) were included in the diligence sample for the July and August 2019 review. The 666 loans in the July and August 2019 review diligence sample were selected from a broader population of 3,672 loans (all of which met the Preliminary Eligibility Criteria); of those 666 loans, 203 are in the Reference Pool.

The diligence providers undertook no additional loan review procedures for the remaining Reference Obligations. The loans for each such period were selected by the applicable diligence provider on a random basis rather than on a targeted basis. As a result, the random sample may be of more limited use than a targeted sample for identifying errors with respect to loans that may have a higher propensity for default. Had the loan sample been selected on a targeted basis, the results may have been different and potentially may have had a higher error rate than the error rate found by Fannie Mae in its quality control process. The review was performed on a statistical sample selected from a subset of the Reference Obligations that did not include all of the Reference Obligations included in the Reference Pool. As a result the Reference Obligations that were not included in the review may have characteristics that were not discovered, noted or analyzed as part of a diligence provider's review that could, nonetheless, result in those Reference Obligations experiencing Credit Events or Modification Events in the future. Investors are encouraged to make their own determination as to value of the due diligence undertaken by a diligence provider, the extent to which the characteristics of the Reference Pool can be extrapolated from the error and defect rate and the extent to which investors believe that errors and defects found during the various loan reviews described herein may indicate an increased likelihood of Credit Events or Modification Events and an increased likelihood of principal write-downs and/or interest reductions on the Notes.

The procedures included, among others, a review of the underwriting of certain of the Reference Obligations conducted by the related originators and verification of certain aspects of the Reference Obligations subject to the limited review. In selecting the samples for review, Fannie Mae and the diligence providers were limited to Reference Obligations that previously were reviewed by Fannie Mae as part of its quality control process. In conducting these review procedures, Fannie Mae relied on information and resources available to it and on the third party diligence providers. These review procedures were intended to discover certain Loan File or Underwriting

Errors and possible Eligibility Defects in the Reference Obligations reviewed. However, these procedures did not constitute a re-underwriting of the Reference Obligations, were not designed or intended to discover every possible discrepancy or defect, and were substantially more limited than the scope of diligence review undertaken on recent residential mortgage loan securitization transactions. In addition, the diligence providers conducted procedures designed by Fannie Mae and the diligence providers to sample Fannie Mae's data regarding characteristics of the Reference Obligations, which data was used to generate the numerical information about the Reference Pool included in this Offering Memorandum. In connection with such data review, the diligence providers identified certain discrepancies with respect to the data fields reviewed, as described under "*The Reference Obligations — Due Diligence Review — Data Integrity Reviews*". Further, because Fannie Mae did not update the mortgage loan data tape to reflect these discrepancies, the numerical disclosure in this Offering Memorandum does not reflect any correction of these discrepancies with respect to the Reference Obligations. There can be no assurance that any review process conducted uncovered relevant facts that could be determinative of how the reviewed Reference Obligations will perform.

The diligence providers' review included a limited review for compliance with a limited subset of those federal, state and local laws and regulations that specifically provide for assignee liability or affect the calculation of points and fees under the Federal Truth-in-Lending Act/Regulation Z (and other similar laws) and did not include any review for compliance with TRID or RESPA. The results of the diligence review are described under "*The Reference Obligations — Due Diligence Review*".

Furthermore, to the extent that the limited review conducted by the diligence providers did reveal factors that could affect how the Reference Obligations will perform, the diligence providers may have incorrectly assessed the potential severity of those factors. For example, in cases where the diligence providers reviewed documentation of the borrower's income provided by the loan seller and determined that it did not support the original determination that the Reference Obligation met Fannie Mae's underwriting guidelines, the diligence provider may have also reviewed information regarding the borrower's employment and income that Fannie Mae gathered in its post-purchase quality control review process to determine whether the Reference Obligation met Fannie Mae's underwriting guidelines. The analysis of this information by the diligence providers may erroneously have failed to indicate a defect in the documentation of the borrower's income, which could result in an increased risk that a Credit Event or Modification Event on the Reference Obligation may occur. The process for identifying and determining the factors that could affect how the Reference Obligations will perform is subject to judgment. In three instances, the diligence provider identified Reference Obligations with factors that Fannie Mae did not initially assess that could have affected how the Reference Obligations would perform. These Reference Obligations will be removed from the Reference Pool on or before the Payment Date in February 2020. Investors are encouraged to make their own determination of the extent to which they place reliance on the limited review procedures of the diligence providers engaged by Fannie Mae.

See "*The Reference Obligations — Due Diligence Review*".

Certain Loan Sellers May Originate Loans Under Variances to Fannie Mae's Selling Guide

As described under "*Loan Acquisition Practices and Servicing Standards — Credit Standards*", certain of Fannie Mae's loan sellers have negotiated contracts with Fannie Mae that enable them to sell mortgage loans to Fannie Mae under permitted contract variances ("**Permitted Variances**") that vary from the terms of Fannie Mae's Selling Guide. Mortgage loans originated pursuant to Permitted Variances may experience a higher rate of Credit Events and Modification Events (and greater losses realized with respect thereto) than mortgage loans originated in accordance with the Selling Guide. In addition, because the Permitted Variances vary by loan seller, the performance of the Reference Obligations may not be uniform or consistent, which may adversely impact the Notes.

Appraisals May Not Accurately Reflect the Value or Condition of the Mortgaged Properties; Loan-to-Value Ratios May Be Calculated Based on Appraised Values at Origination, Which May Not Be Accurate Reflections of Current Market Values

In general, an appraisal represents the analysis and opinion of the person performing the appraisal at the time the appraisal is prepared and is not a guaranty of, and may not be indicative of, present or future value. There can be no assurance that another person would not have arrived at a different valuation, even if such person used the same general approach to and same method of valuing the property, or that different valuations would not have been reached by any originator based on its internal review of such appraisal.

The appraisals obtained in connection with the origination of the Reference Obligations sought to establish the amount a typically motivated buyer would pay a typically motivated seller at the time the appraisals were prepared. In determining the price a typically motivated buyer would be willing to pay, appraisers examine comparable sales in a specified locality and adjust the price upward or downward based on characteristics of the related property. An appraisal does not reflect the insurance replacement value of a particular home. The price a typically motivated buyer would be willing to pay is subject to the appraiser's analysis and opinion and could be significantly higher than the amount that would be obtained for a related mortgaged property under a distressed or liquidation sale. In addition, in certain real estate markets property values may have declined since the time the appraisals were obtained, and therefore the appraisals may not be an accurate reflection of the current market values of the related mortgaged properties. The Reference Obligations were originated in or after May 2018 and the appraisals were generally prepared at the times of origination. The current market values of the related mortgaged properties could be lower, and in some cases significantly lower, than the values indicated in the appraisals obtained at the origination of the Reference Obligations and included in the original loan-to-value ratios reflected in this Offering Memorandum.

Because appraisals may not accurately reflect the value or condition of the related mortgaged properties and because property values may have declined since the time appraisals were obtained, the original loan-to-value ratios and the original combined loan-to-value ratios that are disclosed in this Offering Memorandum may be lower, in some cases significantly lower, than the loan-to-value ratios that would be determined if current appraised values of the related mortgaged properties were used to determine loan-to-value ratios. Investors are encouraged to make their own determination as to the degree of reliance they place on the original loan-to-value ratios and the original combined loan-to-value ratios that are disclosed in this Offering Memorandum.

Credit Scores May Not Accurately Predict the Likelihood of Default

The statistical and loan-level information presented in this Offering Memorandum includes data on borrower Credit Scores. "Credit Scores" are generated by models developed by third party credit reporting organizations that analyze data on consumers in order to establish patterns which are believed to be indicative of a borrower's probability of default. A Credit Score represents an opinion of the related credit reporting organization of a borrower's creditworthiness. The Credit Score is based on a borrower's historical credit data, including, among other things, payment history, delinquencies on accounts, levels of outstanding indebtedness, length of credit history, types of credit and bankruptcy experience. Credit Scores range from approximately 300 to approximately 850, with higher scores indicating an individual with a more favorable credit history compared to an individual with a lower score. A Credit Score purports only to be a measurement of the relative degree of risk a borrower represents to a lender, i.e., that a borrower with a higher score is statistically less likely to default in payment than a borrower with a lower score. In addition, it should be noted that Credit Scores were developed to indicate a level of default probability over a two-year period, which does not correspond to the life of most mortgage loans. Furthermore, Credit Scores were not developed specifically for use in connection with mortgage loans, but for consumer loans in general. Therefore, Credit Scores do not address particular mortgage loan characteristics that influence the probability of repayment by the borrower. Fannie Mae does not make any representation or warranty as to any borrower's current Credit Score or the actual performance of any Reference Obligation, or that a particular Credit Score should be relied upon as a basis for an expectation that a borrower will repay the related Reference Obligation according to its terms.

Fannie Mae May Replace or Discontinue Use of the Credit Score Products Used in Its Disclosure

Third party credit reporting organizations may alter the models, pricing and availability of their Credit Score products from time to time. As a result, Fannie Mae in its discretion may either replace or discontinue use of the Credit Score products that it currently uses to disclose certain mortgage loan borrower information. Fannie Mae's decision to use a replacement Credit Score product or to discontinue the use of Credit Scores in Payment Date Statements could impair the ability of investors to track and compare reported Credit Score data over time.

Residential Real Estate Values May Fluctuate and Adversely Affect the Notes

No assurance can be given that the mortgaged property values with respect to the Reference Obligations have remained or will remain at their original levels. If the residential real estate market should experience an overall decline in property values such that the outstanding balances of the Reference Obligations, together with any secondary financing on the mortgaged properties, exceed the values of the mortgaged properties, the rates of delinquencies, foreclosures and losses could be higher than expected. The Reference Obligations with higher loan-

to-value ratios will be particularly affected by any decline in real estate values. Any decline in real estate values may be more severe for Reference Obligations secured by higher cost properties than those secured by lower cost properties. Any decrease in the value of Reference Obligations may increase realized losses with respect to those Reference Obligations, resulting in (i) allocations of Tranche Write-down Amounts to the Notes to the extent Credit Events or Modification Events occur or (ii) reductions in the Interest Payment Amounts on the Notes to the extent Modification Events occur.

The United States experienced a severe recession within the past decade with widespread mortgage loan delinquencies and defaults, numerous foreclosure properties being placed on the market, and losses realized by owners of mortgage loans, including securitization trusts. Some of these problems still exist, including with respect to the level of foreclosure properties and undercollateralized mortgage loans. Although the U.S. economy has emerged from the recession, losses on mortgage loans may continue to rise, or may remain at high levels, if the U.S. economy experiences increases in unemployment rates, foreclosure levels, and inventories of unsold properties. Moreover, as noted above, there is widespread uncertainty with regard to the impact on the U.S. economy of recent political and legislative developments. Investors in the Notes should consider that the ratings of the Notes do not represent a guaranty of the values of the mortgaged properties securing the Reference Obligations and Noteholders may incur losses regardless of the ratings.

Reduced Lending Capacities and/or Increases in Mortgage Rates May Hinder Refinancing and Increase the Risk of Credit Events and Modification Events on the Reference Obligations

Since 2006, many originators and servicers of residential mortgage loans have experienced serious financial difficulties and some have gone out of business. These difficulties have resulted in part from declining markets for their mortgage loans as well as from claims for repurchases of mortgage loans previously sold under provisions that require repurchase in the event of early payment defaults or for breaches of representations and warranties regarding loan quality and characteristics. Many originators with large servicing portfolios have experienced rising costs as mortgage loan delinquencies have increased without a compensating increase in servicing compensation. Although mortgage rates have been at historical lows for several years and have fluctuated in recent months, mortgage rates may increase over time such that the Reference Obligations may have interest rates below then-current mortgage rates. These mortgage rate trends may be affected by shifts in Federal Reserve benchmark interest rate policy, which has recently featured rate cuts following a series of rate increases and remains subject to change in the future. Furthermore, the impact of the current U.S. Administration policies and recent legislation on the U.S. economy remains uncertain and interest rates may continue to increase over time. Further increases in interest rates, as well as reduced availability of affordable mortgage products, may result in slower prepayments on, and adverse performance of, the Reference Obligations. Such performance may differ from historical performance. Additionally, efforts to impose stricter mortgage qualifications for borrowers or reduce the presence of Fannie Mae or Freddie Mac could lead to fewer financing alternatives for borrowers.

The Consumer Financial Protection Bureau (the "CFPB") adopted rules requiring creditors to make a reasonable, good faith determination of a consumer's ability to repay any consumer credit transaction secured by a dwelling and establishes certain protection from liability under this requirement for qualified mortgages. These rules may result in a reduction in the availability of mortgage loans in the future that do not meet the criteria of a qualified mortgage as outlined in the final rule and may adversely affect the ability of borrowers to refinance the Reference Obligations. No assurances are given as to the effect of these rules on the value of your Notes.

These trends may reduce alternatives for borrowers seeking to refinance their mortgage loans. The reduced availability of refinancing options for borrowers may result in higher rates of delinquencies and other Credit Events and Modification Events on the Reference Obligations and corresponding principal write-downs on the Notes.

The Rate and Timing of Principal Payment Collections on the Reference Obligations Will Affect the Yields on the Notes

Assuming the Issuer meets its payment obligations described herein, the rate and timing of payments of principal and the yield to maturity on each Class of Notes will be directly related to the rate and timing of collections of principal payments on the Reference Obligations and the rate and timing of Credit Events and Modification Events. Borrowers are permitted to prepay their Reference Obligations, in whole or in part, at any time, without penalty.

The principal payment characteristics of the Notes have been designed so that the Notes amortize based on the collections of principal payments on the Reference Obligations. The Mezzanine and Junior Reference Tranches will not be allocated Unscheduled Principal on the Reference Obligations unless a target credit enhancement percentage has been satisfied and maintained on the Senior Reference Tranche. Unlike securities in a senior/subordinate private label residential mortgage-backed securitization, the principal payments required to be paid by the Issuer on the Notes will be based in part on Scheduled Principal that is due and collected on the Reference Obligations, rather than on scheduled payments due on such Reference Obligations, as described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Senior Reduction Amount and Subordinate Reduction Amount*" in this Offering Memorandum. In other words, to the extent that there is a delinquent borrower who misses a payment (or makes only a partial scheduled payment) on a Reference Obligation, the Issuer will not make principal payments on the Notes based on the amount that was due on such Reference Obligation; instead, the Issuer will only make principal payments on the Notes based on Scheduled Principal and Unscheduled Principal actually collected on such Reference Obligation and any Excess Credit Event Amounts. Any Unscheduled Principal may result in payments to an investor of amounts that would otherwise be distributed over the remaining term of the Reference Obligations. Additionally, the Notes will generally only receive principal based on Unscheduled Principal upon the satisfaction of the Minimum Credit Enhancement Test and Delinquency Test as described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Senior Reduction Amount and Subordinate Reduction Amount*" in this Offering Memorandum.

On the Closing Date, the approximate initial Subordinate Percentage will be 3.95% and will not satisfy the Minimum Credit Enhancement Test until it equals 4.650000%. As a result, Unscheduled Principal will be credited to the Class 1A-H Reference Tranche until the Minimum Credit Enhancement Test is satisfied and thus will delay payments of principal to the Notes (other than principal payments in respect of any Supplemental Subordinate Reduction Amounts allocated to the related Reference Tranches prior to satisfaction of the Minimum Credit Enhancement Test).

With respect to a Credit Event Reference Obligation that becomes a Reversed Credit Event Reference Obligation, all collections of principal on such Reversed Credit Event Reference Obligation will be treated as Unscheduled Principal. Investors should make their own determination as to the effect of these features on the Notes.

The rate and timing of principal payments (including prepayments) on mortgage loans is influenced by a variety of economic, geographic, social and other factors, but may depend greatly on the level of mortgage rates:

- If prevailing interest rates for similar mortgage loans fall below the interest rates on the Reference Obligations, the rate of principal prepayments would generally be expected to increase due to refinancings.
- Conversely, if prevailing interest rates for similar mortgage loans rise above the interest rates on the Reference Obligations, the rate of principal prepayments would generally be expected to decrease.

The rate and timing of principal payments on the Reference Obligations will also be affected by the following:

- the amortization schedules of the Reference Obligations,
- the rate and timing of partial prepayments and full prepayments by borrowers, due to refinancing, job transfers, changes in property value or other factors,
- liquidations of, or Modification Events resulting in the reduction of the principal balance of, Reference Obligations,
- the time it takes for defaulted Reference Obligations to be modified or liquidated,
- the availability of loan modifications for delinquent or defaulted Reference Obligations,
- the rate and timing of payment in full of Reference Obligations or other removals from the Reference Pool, and
- the rate and timing of removals of Reference Obligations from the related MBS.

In addition, the occurrence of Credit Events and Reference Pool Removals could have the same effect on the Reference Pool as prepayments in full. As such, (i) the rate and timing of Credit Events (and any reversals thereof) and Modification Events, (ii) the severity of any losses with respect thereto and (iii) Reference Pool Removals may also affect the yield on the Notes.

Mortgage originators make general solicitations for refinancings. Any such solicited refinancings may result in a rate of principal prepayments that is higher than prospective investors might otherwise expect.

In addition, a number of municipalities in various States throughout the U.S. have expressed an interest in exploring the potential for seizing undercollateralized mortgage loans under the power of eminent domain. In certain instances, municipalities have made a determination to pursue this policy. In the event any such seizures were to occur with respect to Reference Obligations, the result would be the removal of each affected mortgage loan from the Reference Pool and a corresponding allocation of Unscheduled Principal to the Notes in an amount equal to the aggregate unpaid principal balance of the Reference Obligations so removed.

No representation is made as to the rate of principal payments, including principal prepayments, on the Reference Obligations or as to the yield to maturity of any Class of Notes. In addition, there can be no assurance that any of the Reference Obligations will or will not be prepaid prior to their maturity. An investor is urged to make an investment decision with respect to any Class of Notes based on the anticipated yield to maturity of that Class of Notes resulting from its purchase price and the investor's own determination as to anticipated Reference Obligation prepayment, Credit Event and Modification Event experience under a variety of scenarios. The extent to which the Notes are purchased at a discount or a premium and the degree to which the timing of payments on the Notes is sensitive to prepayments will determine the extent to which the yield to maturity of the Notes may vary from the anticipated yield.

If investors are purchasing Notes (other than Interest Only RCR Notes) at a discount, such prospective investors should consider the risk that if principal payments on the Reference Obligations occur at a rate slower than such prospective investors expected, such prospective investors' yield will be lower than expected. If prospective investors are purchasing Notes at a premium, such prospective investors should consider the risk that if principal payments on the Reference Obligations occur at a rate faster than such investors expected, such prospective investors' yield will be lower than expected and such investors may not even recover their investment in the Notes. Notwithstanding the price an investor paid for the Notes, if principal payments on the Reference Obligations are faster than expected, then, depending on then-prevailing economic conditions and interest rates, an investor may be unable to reinvest those funds at a yield that is equal to or greater than the yield on the Notes. By contrast, if principal payments on the Reference Obligations are slower than expected and the yield on the Notes is lower than comparable investments available when an investor expected to, but did not, receive principal, an investor will be at a disadvantage by not having as much principal available to reinvest at that time.

If prospective investors are investing in Interest Only RCR Notes, such prospective investors should consider the risk that if principal payments allocated to the related Class of Exchangeable Notes occur at a fast rate, such investors may not even recover their investments in such Interest Only RCR Notes. In the event that Holders of the Interest Only RCR Notes do not fully recover their investment as a result of (i) a high rate of Credit Events and Modification Events that result in losses being realized with respect thereto, or (ii) rapid principal prepayments on the Reference Obligations, all amounts "due" to such Holders will nevertheless have been paid, and such result is consistent with the ratings received on the Interest Only RCR Notes. For example, if the Reference Obligations were to prepay in the initial month following the Closing Date, Holders of the Interest Only RCR Notes would receive only a single month's interest and, therefore, would suffer a nearly complete loss of their investment. The Class Notional Amounts of the Interest Only RCR Notes on which interest is calculated will be reduced by the allocation under the hypothetical structure described in this Offering Memorandum of Tranche Write-down Amounts and prepayments, whether voluntary or involuntary, to the related Reference Tranches and Exchangeable Notes from which their respective Class Notional Amounts are derived. The ratings do not address the timing or magnitude of reductions of such Class Notional Amounts, but only the obligation to pay interest timely on the Class Notional Amounts as so reduced from time to time. Therefore, the ratings of the Interest Only RCR Notes should be evaluated independently from similar ratings on other types of securities.

The timing of changes in the rate of prepayments may significantly affect the actual yield to you, even if the average rate of principal prepayments is consistent with your expectations. In general, the earlier the payment of principal of the Reference Obligations, the greater the effect on the yields to maturity of the Notes. As a result, the effect on an investor's yield due to principal prepayments on the Reference Obligations occurring at a rate higher (or

lower) than the rate anticipated during the period immediately following the issuance of the Notes may not be offset by a subsequent like reduction (or increase) in the rate of principal prepayments. See "*Summary of Terms — Prepayment and Yield Considerations*" and "*Prepayment and Yield Considerations*" in this Offering Memorandum.

For a more detailed discussion of these factors, see "*Prepayment and Yield Considerations*" and "*The Reference Obligations*" in this Offering Memorandum.

Fannie Mae Does Not Re-Underwrite the Mortgage Loans It Acquires from Its Loan Sellers, Which May Adversely Affect the Performance of the Reference Obligations

Fannie Mae does not originate any mortgage loans, including the Reference Obligations. As described under "*Loan Acquisition Practices and Servicing Standards*", Fannie Mae acquires mortgage loans, including the Reference Obligations, from its approved loan sellers pursuant to contracts with such loan sellers. Fannie Mae does not re-underwrite the mortgage loans that it acquires and it has not done so with respect to the Reference Obligations. Fannie Mae's quality control reviews encompass only a small percentage of mortgage loans or Reference Obligations that Fannie Mae has acquired, and its quality control reviews do not constitute a re-underwriting of the Reference Obligations Fannie Mae does review, as described under "*Loan Acquisition Practices and Servicing Standards – Quality Control*". Fannie Mae depends on its loan sellers' compliance with their contracts and relies on the loan sellers' representations and warranties to Fannie Mae that the mortgage loans being sold satisfy the underwriting standards and other requirements specified in the loan sellers' contracts. Fannie Mae generally does not independently verify compliance by loan sellers with respect to representations and warranties and, other than with respect to any Reference Obligations that Fannie Mae may have reviewed under its quality control process described in this Offering Memorandum, Fannie Mae has not done so with respect to the Reference Obligations. As a result, it is possible that if loan sellers have not complied with their obligations under their contracts with Fannie Mae that certain Reference Obligations may have defects or deficiencies that Fannie Mae is not aware of. Reference Obligations with substantial defects are likely to experience Credit Events and Modification Events (and losses realized with respect thereto) at a higher rate than Reference Obligations without such defects, which could result in (i) Tranche Write-down Amounts being allocated to reduce the Class Principal Balances or Class Notional Amounts, as applicable, of the Notes (to the extent Credit Events and Modification Events occur with respect to such Reference Obligations that result in realized losses) and (ii) interest reduction amounts on the Notes (to the extent Modification Events occur with respect to such Reference Obligations that result in reduced mortgage rates or principal forbearance) and, in turn, investment losses to the Noteholders.

Additionally, Fannie Mae does not independently verify all of the loan-level information and data reported or furnished to Fannie Mae by its loan sellers and servicers of the mortgage loans. Discrepancies in the loan-level information and data may come to Fannie Mae's attention from loan sellers, servicers, vendors it retains, third parties or through Fannie Mae's quality control processes.

The Performance of the Reference Obligations Could Be Dependent on the Servicers

The performance by the servicers of the Reference Obligations could have an impact on the amount and timing of principal collections on the Reference Obligations and the rate and timing of the occurrence of Credit Events and Modification Events (and the severity of losses realized with respect thereto). As described under "*Loan Acquisition Practices and Servicing Standards — Servicing Standards*" in this Offering Memorandum, servicers are generally required to service the Reference Obligations in accordance with the terms of Fannie Mae's Servicing Guide. The servicers are servicing only for the benefit of Fannie Mae and have no duties or obligations to service for the benefit of investors in the Notes. Fannie Mae is the master servicer with respect to the Reference Obligations and generally supervise and monitor the performance of the servicers, although Fannie Mae has no such duty to supervise and monitor the servicers' performance for the benefit of the investors in the Notes. There can be no assurance that any supervision and monitoring of the servicers that Fannie Mae undertakes will be sufficient to determine substantial compliance by the servicers of their contractual obligations owed to Fannie Mae. The Reference Obligations will be serviced by many different servicers, and the individual performance of servicers will vary. As a result, the performance of the Reference Obligations may similarly vary, which may adversely affect the Notes. For example, the servicing practices of each servicer could have an impact on the timing and amount of Unscheduled Principal allocated to any Reference Obligation, which as a result will have an impact on the timing of principal payments made by Fannie Mae on the Notes.

In addition, the servicing practices could affect the Net Liquidation Proceeds received by Fannie Mae and therefore result in an increase in Tranche Write-down Amounts allocated to the Reference Tranches (and the

corresponding Notes). Investors should consider that in the case of any Reference Obligation that is removed from the Reference Pool upon becoming a Credit Event Reference Obligation, if Fannie Mae subsequently discovers that the applicable servicer breached any of its servicing obligations with respect to such Reference Obligation Fannie Mae may ultimately recover from the servicer indemnification or fee payment in lieu of repurchase in respect thereof or the servicer may repurchase the Reference Obligation from Fannie Mae. A Tranche Write-up Amount will be allocated to the Reference Tranches or the Notes only to the extent that Principal Recovery Amounts exceed Principal Loss Amounts.

Investors should note that if a servicer fails to service the Reference Obligations in accordance with Fannie Mae's standards, Fannie Mae has certain contractual remedies, including the ability to require such servicer to pay compensatory or other fees. Under no circumstances will investors receive the benefit of the payment to Fannie Mae of compensatory fees or similar fees nor will the payment of such fees to Fannie Mae result in a Principal Recovery Amount being allocated to the Notes.

Servicers May Not Follow the Requirements of Fannie Mae's Servicing Guide and Servicing Standards May Change Periodically

There is a risk that servicers will commit reporting errors or otherwise fail to follow the Servicing Guide, which may result in such Reference Obligations experiencing a higher rate of Credit Events than the Reference Obligations serviced in accordance with the Servicing Guide or, in certain limited instances, removal from the Reference Pool. Also, in the normal course of its business Fannie Mae may make periodic changes to the servicing provisions of the Servicing Guide. Any such future changes will become applicable to the servicing of the Reference Obligations at such future time. Fannie Mae is under no obligation to consider the impact these changes may have on the Reference Obligations or the Notes and there can be no assurance that any future changes will not have an adverse impact on the Reference Obligations and the Notes.

Statutory and Judicial Limitations on Foreclosure Procedures May Delay Recovery in Respect of the Mortgaged Properties and, in Some Instances, Limit the Amount That May Be Recovered by the Servicers, Resulting in Losses on the Reference Obligations That Might Be Allocated to the Notes

Foreclosure procedures may vary from state to state. Two primary methods of foreclosing a mortgage instrument are judicial foreclosure, involving court proceedings, and non-judicial foreclosure based on a power of sale granted in the mortgage instrument. A foreclosure action is subject to most of the delays and expenses of other lawsuits if defenses are raised or counterclaims are asserted. Delays may also result from difficulties in locating necessary defendants. Non-judicial foreclosures may be subject to delays resulting from state laws mandating the recording of notice of default and notice of sale and, in some states, notice to any party having an interest of record in the real property, including junior lienholders. Some states have adopted "anti-deficiency" statutes that limit the ability of a lender to collect the full amount owed on a loan if the property sells at foreclosure for less than the full amount owed. In addition, U.S. courts have traditionally imposed general equitable principles to limit the remedies available to lenders in foreclosure actions that are perceived by the court as harsh or unfair. The effect of these statutes and judicial principles may be to delay and/or reduce distributions in respect of the Notes. See "*Certain Legal Aspects of the Reference Obligations—Foreclosure.*"

Stricter Enforcement of Foreclosure Rules and Documentation Requirements May Cause Delays and Increase the Risk of Loss

In recent years, courts and administrative agencies have more strictly enforced existing rules regarding the conduct of foreclosures and, in some circumstances, have imposed new rules regarding foreclosures. Some courts have delayed or prohibited foreclosures based on perceived failures to comply with technical requirements. State legislatures have enacted new laws regarding foreclosure procedures. In some cases, law enforcement personnel have refused to enforce foreclosure judgments. At least one county is reported to be refusing to allow foreclosure sales to be conducted on the courthouse steps. In addition, borrowers are bringing legal actions, or filing for bankruptcy, to attempt to block or delay foreclosures. As a result, the servicers of the Reference Obligations may be subject to delays in conducting foreclosures and the expense of foreclosures may increase, resulting in delays or reductions in payments on the Notes.

Borrowers have had increased success in challenging or delaying foreclosures based on technical grounds, including challenges based on alleged defects in mortgage loan documentation and challenges based on alleged defects in the documentation under which the mortgage loans were securitized. In a number of cases, such

challenges have delayed or prevented foreclosures. It is possible that the number of successful challenges to foreclosures by borrowers will increase. The process of curing defective documents required to conduct a foreclosure will cause delays and increase costs, resulting in losses on the Notes. Further, the CFPB rules require, among other things, that servicers exhaust all feasible loss mitigation options before proceeding with foreclosures, which will have the effect of delaying foreclosures of Reference Obligations in certain instances.

Insurance Related to the Mortgaged Properties May Not Be Sufficient to Compensate for Losses

Although the mortgaged properties may be covered by insurance policies, such as hazard insurance or flood insurance, no assurance can be made that the proceeds from such policies will be used to repay any amounts owed in respect of such Reference Obligations or will be used to make improvements to the mortgaged properties commensurate with the value of any of the damaged improvements. In addition, although an insurance policy may cover the "replacement cost" of the improvements on any mortgaged property, the proceeds of such insurance policy may be insufficient to cover the actual replacement cost of such improvements or the appraised value of the improvements. No assurance can be given that the applicable insurer will have sufficient financial resources to make any payment on any insurance policy or that any such insurer will not challenge a claim, resulting in a delay or reduction of the ultimate insurance proceeds, which in turn could have a material adverse effect on the performance of the Notes. In particular, hazard insurers may experience financial strain and be unable to make payments on related claims during any period in which significant numbers of mortgaged properties are damaged by natural or other disasters, and any resulting losses on the Notes will not be reduced or offset by payments from Fannie Mae or otherwise. Furthermore, to the extent any mortgaged property becomes an REO property, Fannie Mae does not provide for third-party hazard insurance on such properties. While it is generally Fannie Mae's practice to restore REO properties that experience casualties, Fannie Mae is not obligated to do so. In the event a mortgaged property related to a Reference Obligation becomes an REO property, uninsured hazards on such REO property could result in lower Net Liquidation Proceeds upon liquidation, potentially leading to a Credit Event Net Loss on the related Reference Obligation. This risk applies especially in cases where Fannie Mae elects not to restore properties that experienced casualties.

Servicing Transfers May Result in Decreased or Delayed Collections and Credit Events

Fannie Mae has the right to terminate servicers with or without cause as described in the Servicing Guide. The removal of servicing from one servicer and transfer to another servicer involves some risk of disruption in collections due to data input errors, misapplied or misdirected payments, inadequate borrower notification, system incompatibilities and other reasons. As a result, in the event of any such transfer, the affected Reference Obligations may experience increased delinquencies and defaults, at least for a period of time, until all of the borrowers are informed of the transfer and the related servicing records and all the other relevant data has been obtained by the new servicer. There can be no assurance as to the extent or duration of any disruptions associated with the transfer of servicing or as to the resulting effects on the payments and yields on the Notes. To the extent Reference Obligations become delinquent as a result of any such servicing transfer, such delinquencies may result in Credit Events, which could result in Tranche Write-down Amounts being allocated to reduce the Class Principal Balances of the applicable Notes and, in turn, investment losses to the related Noteholders.

Each Servicer's Discretion Over the Servicing of the Related Reference Obligations May Impact the Amount and Timing of Funds Available to Make Payments on the Notes

Each servicer is obligated to service the related Reference Obligations in accordance with applicable law and the Servicing Guide, as applicable. See "*Loan Acquisition Practices and Servicing Standards — Servicing Standards*" in this Offering Memorandum. Each servicer has some discretion in servicing the related Reference Obligations as it relates to the application of the Servicing Guide. Maximizing collections on the related Reference Obligations is not the servicer's only priority in connection with servicing the related Reference Obligations. Consequently, the manner in which a servicer exercises its servicing discretion or changes its customary servicing procedures could have an impact on the amount and timing of principal collections on the related Reference Obligations, which may impact the amount and timing of principal payments to be made by the Issuer on the Notes.

The Performance of Loan Sellers and Servicers May Adversely Affect the Performance of the Reference Obligations

Any financial difficulties of loan sellers and servicers of residential mortgage loans may be exacerbated by higher delinquencies and defaults that reduce the value of mortgage loan portfolios, requiring loan sellers to sell

their portfolios at greater discounts to par. In addition, the costs of servicing an increasingly delinquent mortgage loan portfolio may be rising without a corresponding increase in servicing compensation. In recent years, loan sellers and servicers of residential mortgage loans also have been the subject of governmental investigations and litigation, which potentially may impact the financial condition of those financial institutions. In addition, any regulatory oversight, proposed legislation and/or governmental intervention may have an adverse impact on loan sellers and servicers. These factors, among others, may have the overall effect of increasing costs and expenses of loan sellers and servicers while at the same time decreasing servicing cash flow and loan origination revenues. This in turn may have a negative impact on the ability of loan sellers and servicers to perform their obligations to Fannie Mae with respect to the Reference Obligations, which could affect the amount and timing of principal collections on the Reference Obligations and the rate and timing of the occurrence of Credit Events and Modification Events (as well as the severity of losses realized with respect thereto). For any loan seller or servicer that becomes subject to a bankruptcy proceeding, Fannie Mae may receive lump sum settlement proceeds from the bankruptcy estate to cover all liabilities and/or contingent liabilities of such loan seller or servicer to Fannie Mae (net of, if applicable, all liabilities and/or contingent liabilities of Fannie Mae to such loan seller or servicer), a portion of which may include proceeds that relate to underwriting and origination representation and warranty breaches or servicing breaches. Given the difficulty and impracticality to separately and accurately account for the proceeds that relate to underwriting and origination representation and warranty breaches, no portion of these settlement proceeds that Fannie Mae may receive will be included in the Rep and Warranty Settlement Coverage Amount, allocated to reduce the Class Notional Amount of the Reference Tranche or otherwise in a Tranche Write-up Amount.

Determinations of Reversed Credit Event Reference Obligations and Make-Whole Proceeds Will Be Dependent in Part on Cooperation by the Loan Sellers and Servicers and on Fannie Mae's Quality Control Procedures

If Fannie Mae were to discover a defect or deficiency with respect to any Reference Obligation during the course of its quality control reviews, Fannie Mae may require the loan seller or servicer to repurchase the related Reference Obligation, agree to a full or partial indemnification of Fannie Mae in respect of the Reference Obligation, provide a make-whole payment in respect of the Reference Obligation or pay a fee in lieu of repurchase in respect of the Reference Obligation, among other remedies, as described under "*Loan Acquisition Practices and Servicing Standards — Quality Control — Loan Remediation Process — Repurchases*" in this Offering Memorandum. However, such loan seller or servicer may not have the financial ability, or may decide not, to repurchase, indemnify, provide a make-whole payment or pay a fee in lieu of repurchase with respect to such Reference Obligation. Alternatively, such loan seller or servicer may appeal Fannie Mae's repurchase request, as described under "*Loan Acquisition Practices and Servicing Standards — Quality Control — Loan Remediation Process — Appeal Process for Repurchases and Other Remedies*". Any of these actions by a loan seller or servicer may delay or reduce the allocation of any Tranche Write-up Amount to increase the Class Principal Balances of the Notes.

Additionally, following a removal of servicing from one servicer and the transfer to another servicer, Fannie Mae in certain limited cases may permit the extinguishment of the original servicer's liability for breaches of representations and warranties with respect to the applicable Reference Obligations even if the new servicer is not assuming liability for such breaches. In such limited cases, following the transfer of servicing no party will have continued liability for the original representations and warranties and, as a result, any defect or deficiency that may exist with respect to the related Reference Obligations will fail to result in a Tranche Write-up Amount.

Moreover, certain loan seller representations and warranties will be subject to "sunset" upon satisfaction of specified performance and other conditions, and may also be subject to relief under the Rep and Warrant Framework. See "*Loan Acquisition Practices and Servicing Standards — Quality Control — Fannie Mae Quality Control Policy and Process*" for a description of these features.

Furthermore, if any loan seller or servicer becomes subject to a bankruptcy proceeding, is placed in receivership, or is terminated by Fannie Mae, Fannie Mae may cease to include mortgage loans sold or serviced by such loan seller or servicer in the population of mortgage loans that are selected to be reviewed under Fannie Mae's quality control process described under "*Loan Acquisition Practices and Servicing Standards — Quality Control*" if Fannie Mae determines that the likelihood of collecting on any potential remedies for such loans is low. As a result, any defects or deficiencies that may exist with respect to such Reference Obligations may go undetected, or may fail to result in a Tranche Write-up Amount.

Solicitation May Result in Erosion in the Overall Credit Quality of the Reference Pool

While Fannie Mae prohibits its servicers from specifically soliciting their borrowers for refinancing or segregating mortgages in their own portfolio from those sold to Fannie Mae for different treatment in terms of refinance advertising, offers or practices (except for HARP refinancing where they are required only to treat Fannie Mae- and Freddie Mac-serviced loans the same), Fannie Mae's servicers and other mortgage lenders are not precluded from conducting broad based consumer advertising and solicitations of borrowers in general to refinance their mortgage loans. These refinancings may increase the rate of prepayment of the Reference Obligations. The refinancing of a portion of the Reference Obligations may lead to an erosion of the credit quality of the Reference Obligations remaining in the Reference Pool and a resulting increase in the rate of Credit Events and Modification Events (as well as increase the severity of losses with respect thereto). A Noteholder may receive less interest on the Notes as a result of prepayments on Reference Obligations and as a result may experience a lower yield on its investment.

Borrowers May Have, or May in the Future Incur, Additional Indebtedness Secured by Mortgaged Properties Securing the Reference Obligations

As of the Cut-off Date, approximately 3.16% of the Reference Obligations by the Cut-off Date Balance are secured by mortgaged properties that also were subject to subordinate mortgage liens at the respective times of origination of those Reference Obligations and considered in the underwriting of such Reference Obligations. In addition, borrowers may generally obtain additional mortgage loans secured by their respective properties at any time and Fannie Mae is not generally entitled to receive notification when a borrower does so. Therefore, it is possible that borrowers have obtained additional post-origination subordinate mortgages. If such a post-origination subordinate mortgage is obtained with respect to a Reference Obligation, this additional indebtedness could increase the risk that the value of the related mortgaged property is less than the total indebtedness secured by such mortgaged property and could increase the risk of Credit Events on such Reference Obligation. The existence of subordinate mortgage liens may adversely affect default rates because the related borrowers must make two or more monthly payments and also because such subordinate mortgages will result in an increased combined loan-to-value ratio of the mortgage loans. A default on a subordinate mortgage loan could cause the related mortgaged property to be foreclosed upon at a time when the first mortgage loan remains current as to scheduled payments. If this should occur with respect to Reference Obligations, it may affect prepayment rates on the Reference Obligations and could result in increased Credit Events with respect to the Reference Obligations, which could adversely affect the Noteholders. Further, with respect to mortgage loans that have subordinate lien mortgages encumbering the same mortgaged property, the risk of Credit Events may be increased relative to mortgage loans that do not have subordinate financing since borrowers who have subordinate lien mortgages have less equity in the mortgaged property. Fannie Mae has not independently verified the existence of any subordinate liens on any mortgaged properties securing the Reference Obligations, and any information provided in this Offering Memorandum as to subordinate liens on any mortgaged properties securing the Reference Obligations is based solely on the representation made by the related loan sellers in connection with Fannie Mae's acquisition of the related Reference Obligations.

Geographic Concentration May Increase Risk of Credit Events Due to Adverse Economic Conditions or Natural Disasters

As of the Cut-off Date, approximately 21.34% of the Reference Obligations by the Cut-off Date Balance are secured by mortgaged properties located in California. If the regional economy or housing market weakens in California or any other state or region having a significant concentration of mortgaged properties underlying the Reference Obligations, the Reference Obligations may experience higher rates of Credit Events, resulting in losses on the Notes. In recent years, natural disasters have resulted in catastrophic damage to extensive areas of the Southeastern United States, Puerto Rico, the U.S. Virgin Islands and parts of California. In some cases, the full extent of the damage resulting from the foregoing events, including fire loss, mudslides, severe flooding, high winds and environmental contamination, remains uncertain. Thousands of people have been displaced and interruptions in the affected regional economies have been significant. Although the long-term effects are in some cases unclear, these events, and any other similar events that may occur in the future, could lead to a general economic downturn in the affected regions, including job losses and declines in real estate values. Accordingly, the rate of defaults on mortgage loans in the affected areas, including certain of the Reference Obligations, may increase and could result in higher rates of Credit Events or Modification Events.

Any deterioration in housing prices in a state or region due to adverse economic conditions, natural disasters or other factors, any deterioration of the economic conditions or natural disasters in a state or region that adversely affects the ability of borrowers to make payments on the Reference Obligations and any deterioration in Fannie Mae's financial position may reduce its ability to make any payments required under the Collateral Administration Agreement and the Capital Contribution Agreement, which could result in losses on the Notes and adversely affect the yields on the Notes.

See [Appendix A](#) to this Offering Memorandum for further information regarding the geographic concentration of the Reference Obligations.

The Rate of Credit Events and Modification Events on Mortgage Loans That Are Secured by Second Homes or Investment Properties May Be Higher Than the Rate on Other Mortgage Loans

As of the Cut-off Date, approximately 10.93% of the Reference Obligations by the Cut-off Date Balance are secured by properties acquired as second homes or investment properties. Mortgage loans secured by properties acquired as second homes or investments may present a greater risk that the borrower will stop making monthly payments if the borrower's financial condition deteriorates. Properties acquired as second homes or investments may have a higher frequency of Credit Events and Modification Events than properties that are owner-occupied. In a default, a borrower who does not reside in the mortgaged property may be more likely to abandon the related mortgaged property. This risk may be especially pronounced for borrowers with mortgage loans on more than two properties. In addition, income expected to be generated from an investment property may have been considered for underwriting purposes in addition to the income of the borrower from other sources. Should this income not materialize, it is possible the borrower would not have sufficient resources to make payments on the mortgage loan.

The percentage of the Reference Obligations described in the preceding paragraph does not include any mortgage loans secured by second homes or investment properties for which the related borrower identified the purpose of the loan as owner-occupied. Any such mortgage loan may perform similarly (and demonstrate similar risks) to mortgage loans described in the preceding paragraph. Fannie Mae has not independently verified the occupancy status of any home, and any information provided in this Offering Memorandum as to owner occupancy is based solely on the representation made by the related borrower in connection with the origination of the related Reference Obligation.

The Rate of Credit Events and Modification Events on Mortgage Loans That Are Cash-out Refinance Transactions May Be Higher Than on Other Mortgage Loans

As of the Cut-off Date, approximately 24.19% of the Reference Obligations by Cut-off Date Balance were originated as cash-out refinance transactions. In a cash-out refinance transaction, in addition to paying off existing mortgage liens, the borrower obtains additional funds that may be used for other purposes, including paying off subordinate mortgage liens. Such additional funds provide unrestricted cash proceeds to the borrower. In "no cash-out" or "rate and term" refinance transactions, the funds are used to pay off existing mortgage liens and may be used in limited amounts for certain specified purposes. Cash-out refinance transactions generally have had a higher risk of Credit Events and Modification Events than mortgage loans originated in no cash-out, or rate and term, refinance transactions.

Mortgage Loans Made to Certain Borrowers May Present a Greater Risk

Credit Events and Modification Events on certain Reference Obligations may be higher as a result of the related borrowers' circumstances. Borrowers of certain Reference Obligations may have less steady or predictable income than others, which may increase the risk of these borrowers not making timely payments. Further, borrowers who are significantly increasing their housing payments or are relying on income from non-borrower household members as a compensating factor to allow for a greater debt-to-income ratio under the HomeReady® program may have difficulties adjusting to their new housing debt even though their debt-to-income ratios may be within guidelines. These home buyers may present a greater risk of default as a result of their circumstances. Additionally, starting in August 2017, loans underwritten through Desktop Underwriter® have a maximum allowable DTI of 50% (based on the overall risk assessment of the loan) with no requirement for compensating factors. The removal of this requirement has contributed to an increase in 50% DTI loans in Fannie Mae's portfolio. Investors should consider that a higher number of borrowers and loans described above may result in increased Credit Events and Modification Events (as well as increased severity of realized losses with respect thereto).

Mortgage Loans Secured by Manufactured Homes May Present a Greater Risk

Approximately 0.47% of the Reference Obligations by the Cut-off Date Balance are secured by manufactured homes. Reference Obligations secured by manufactured homes may present a greater risk that the borrower will default on the Reference Obligation as compared to mortgage loans secured by non-manufactured homes. Consequently, investors should consider that a higher number of Reference Obligations secured by manufactured homes may result in increased Credit Events and Modification Events (as well as increased severity of realized losses with respect thereto).

Special Assessments and Energy Efficiency and Homeowner Association Liens May Take Priority Over the Mortgage Liens

Mortgaged properties securing the Reference Obligations may be subject to the lien of special property taxes, special assessments and/or liens that secure payment of periodic dues to homeowner associations. In addition, mortgaged properties may be subject to mechanic's liens arising subsequent to the dates of origination of the related Reference Obligations. The foregoing liens may be superior to the liens securing the Reference Obligations, irrespective of the date of the mortgage loan.

In some instances, individual borrowers may elect to enter into contracts with governmental agencies for Property Assessed Clean Energy (PACE) or similar assessments that are intended to secure the payment of energy and water efficiency and distributed energy generation improvements that are permanently affixed to their properties, possibly without notice to or the consent of the mortgage lender. These assessments may also have lien priority over the mortgages securing the Reference Obligations. No assurance can be given that any mortgaged property so assessed will increase in value to the extent of the assessment lien. Additional indebtedness secured by the assessment lien would reduce the amount of the value of the mortgaged property available to satisfy the affected Reference Obligation if certain Credit Events were to occur and could therefore reduce the Net Liquidation Proceeds received with respect to such Reference Obligation (and ultimately increase the losses allocated to the Notes).

In numerous states, unpaid dues owed to a homeowner association may result in a lien on the related mortgaged property that has priority over the lien of a mortgage. If the holder of such a homeowner association lien forecloses on the related mortgaged property, the lien of the mortgage may be extinguished, resulting in losses on the related mortgage loan.

Impact of Potential Military Action and Terrorist Attacks

The effects that any military action by U.S. forces in other regions and potential terrorist attacks within or outside the United States may have on the performance of the Reference Obligations cannot be determined at this time. Prospective investors should consider the possible effects on delinquency, default and prepayment experience of the Reference Obligations. Federal agencies and non-government lenders have and may continue to defer, reduce or forgive payments and delay foreclosure proceedings in respect of mortgage loans to mortgagors affected in some way by recent and possible future events.

The Servicemembers Civil Relief Act, similar state military relief laws and Fannie Mae's policies relating to servicemembers may require payment reduction or foreclosure forbearance to some borrowers and their dependents. Moreover, federal and state agencies have deferred, reduced or forgiven and may continue to defer, reduce or forgive payments and delay foreclosure proceedings for mortgage loans to borrower affected in some way by possible future military action, deployment or terrorist attacks whether or not they or their dependents are servicemembers.

Mortgage Loan Historical Information Is Not Indicative of Future Performance of the Reference Pool

The information with respect to the Reference Obligations and Fannie Mae's mortgage loans generally in this Offering Memorandum or otherwise made available to investors is historical in nature and should not be relied upon as indicative of the future performance of the Reference Obligations. In the past, historical information was not indicative of future performance due to various factors, including changes in lending standards, availability of affordable mortgage products, the general state of the economy and housing prices.

Governance, Regulation and General Economic Considerations

The Policies of the U.S. Administration, Geopolitical Events and Related Impacts on the U.S. Economy May Affect the Market Value of the Notes

Mortgage Finance System Reform

In September 2019, Treasury released a proposal for administrative and legislative reforms to end the conservatorship of Fannie Mae and Freddie Mac and to effect widespread reform of the U.S. mortgage finance system through both administrative action and legislative initiatives. The September 2019 Letter Agreement increasing Fannie Mae's capital reserve amount represents a significant step toward implementing the reforms outlined in Treasury's proposal. The September 2019 Letter Agreement also provides that Fannie Mae and Treasury agree to negotiate and execute an additional amendment to the Senior Preferred Stock Purchase Agreement to further enhance taxpayer protections by adopting covenants broadly consistent with recommendations for administrative reform contained in Treasury's proposal. In addition, the implementation of policy objectives asserted by the Director of FHFA could result in significant changes affecting Fannie Mae's conservatorship. Furthermore, legislative initiatives for U.S. mortgage finance reform have been and may continue to be proposed from time to time by members of Congress. For example, in February 2019, Senate Banking, Housing and Urban Affairs Committee Chairman Michael Crapo (R-ID) released an outline for potentially significant U.S. mortgage finance reform legislation. Most recently, FHFA Director Mark Calabria expressed his view regarding the urgent need for housing reform and an early end to conservatorship for Fannie Mae and Freddie Mac. These reform efforts could have significant effects on housing demand, real estate values and prevailing mortgage rates for residential properties. Uncertainty as to which reforms will ultimately be implemented and ongoing questions with regard to the U.S. Administration policies and legislative efforts in Congress could reduce future business investment and consumption patterns, which in turn could adversely affect the borrowers.

Tax Cuts and Jobs Act

On December 22, 2017, the Tax Cuts and Jobs Act was enacted, providing for significant reductions in corporate and individual tax rates as well as additional changes including a reduction of the home mortgage interest deduction and a limitation of the deduction for state and local taxes. Such changes could lead to increases or decreases in housing inventories based on fluctuations in residential real estate values as well as fluctuations in residential mortgage rates, which could have a significant impact on affordability. Such changes could also result in prepayments on the Reference Obligations at rates that differ materially from the rates assumed in the prepayment model used herein or result in increased Credit Events and Modification Events with respect to the Reference Obligations, adversely affecting the yields on the Notes.

U.S. International Policy and Related Events

The United States, China and other countries have recently imposed or in some instances threatened the imposition of tariffs, quotas, trade barriers and other restrictions on imports into their respective countries. Although the United States and China are currently negotiating an agreement that would prevent the imposition of some tariffs, the scope of these and other restrictions remains unclear, and it is possible they will serve to depress economic activity generally in the United States and abroad, adversely affecting borrowers and contributing to general market volatility.

In January 2020, escalating tensions involving the United States and Iran, including a series of military strikes, could lead to expanded hostilities. These events, together with increased tensions between the United States and North Korea or other nations, and any resulting outbreak of hostilities, could significantly depress economic activity in the United States and abroad.

Future Turbulence in the Residential Mortgage Market or in the Financial Markets and Lack of Liquidity for Mortgage-Related Securities May Adversely Affect the Performance and Market Value of the Notes

Although the single-family housing market in general has shown continued improvement since 2015 relative to the preceding decade, future turbulence in the residential mortgage market or financial markets and a lack of liquidity for mortgage-related securities may adversely affect the performance and market value of the Notes. In addition to political events, continued concerns about the availability and cost of credit in the U.S. mortgage market generally, continued weakness in some regional U.S. real estate markets, downgrades in the long-term debt ratings of the United States and various Eurozone Nations, as well as the systemic impact of inflation or deflation, energy costs and geopolitical issues have contributed to market volatility and diminished expectations for the U.S. economy. Additional factors contributing to the general uncertainty in the prospects for U.S. economic growth

include imposition of trade restrictions affecting the United States, China and other countries, escalating tensions involving the United States and other countries, uncertainty in certain segments of the employment market, government debt levels, prospective Federal Reserve policy shifts, continued withdrawal of government interventions in the financial markets, changing consumer spending patterns, and changing expectations for inflation and deflation. Income growth and unemployment levels affect borrowers' ability to repay mortgage loans, and there is a risk that future economic activity could be weaker than anticipated. See "*The Dodd-Frank Act and Regulatory Changes in the Financial Services Industry May Negatively Impact Fannie Mae's Business and the Reference Pool*" below when considering the impact of regulation on Noteholders.

In June 2016, the United Kingdom voted in favor of leaving the European Union, and in March 2017, Article 50 of the Lisbon Treaty was invoked, commencing a period of negotiations between the United Kingdom and the European Council for the United Kingdom's withdrawal from the European Union, which period was subsequently extended by the European Council members in agreement with the United Kingdom. The withdrawal is currently scheduled for February 1, 2020 with a transition period to last until December 31, 2020, which period may be extended for an additional two years. At this time it is not possible to predict when the withdrawal agreement will be entered into or the date on which the transition period will end. Fannie Mae is unable to predict what impact the United Kingdom's withdrawal from the European Union may have on the Notes, including the market value or the liquidity thereof in the secondary market, or the parties to the Transaction Documents.

Additionally, Fannie Mae is unable to predict the policies that may be adopted by the Federal Reserve. In particular, it is possible that the Federal Reserve may resume interest rate increases and that any such increases may occur at a faster rate than expected. To the extent that interest rates increase as a result of the Federal Reserve actions or otherwise, the availability of refinancing alternatives for the Reference Obligations may be reduced.

Furthermore, a declining economic environment may affect the borrowers' timely payment of principal and interest on the Reference Obligations and, accordingly, may increase the occurrence of delinquencies, Credit Events and Modification Events with respect to the Reference Obligations and adversely affect the amount of Liquidation Proceeds realized in connection with certain Credit Events. In addition, the time periods to resolve defaulted mortgage loans may be lengthy, and those periods may be further extended due to borrower bankruptcies, related litigation and any federal and state legislative, regulatory or administrative actions or investigations.

Moreover, the secondary market for mortgage-related securities has experienced limited liquidity in recent years. These conditions could further deteriorate in the future, adversely affecting the market value of mortgage-related securities, especially those that are more sensitive to prepayment or credit risk, and could adversely affect a Noteholder's ability to sell the Notes or the market values of the Notes.

These factors and general market conditions, together with the limited credit enhancement available to the Noteholders (as described in this Offering Memorandum) could adversely affect the performance and market value of the Notes and result in a full or partial loss of your initial principal investment. See "*Prepayment and Yield Considerations — Yield Considerations with Respect to the Notes*". Finally, there can be no assurance that governmental intervention or any other remedial actions would effectively alleviate these conditions should they arise in the future.

The Dodd-Frank Act and Regulatory Changes in the Financial Services Industry May Negatively Impact Fannie Mae's Business and the Reference Pool

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "**Dodd-Frank Act**"), including implementing regulations, establishes standards related to regulatory oversight of systemically important financial companies, derivatives transactions, asset-backed securitization, mortgage underwriting and consumer financial protection. This legislation is affecting and will, in the future, directly and indirectly affect many aspects of Fannie Mae's business and could have a material adverse effect on the Reference Obligations and on Fannie Mae's business, results of operations, financial condition, liquidity and net worth. The Dodd-Frank Act and related regulatory changes could require Fannie Mae to change certain business practices, cause Fannie Mae to incur significant additional costs, limit the products Fannie Mae offers, require Fannie Mae to increase its regulatory capital or otherwise adversely affect Fannie Mae's business. Additionally, implementation of this legislation will result in increased supervision and more comprehensive regulation of Fannie Mae's customers and counterparties in the financial services industry, which may have a significant impact on the business practices of Fannie Mae's customers and counterparties, as well as on Fannie Mae's counterparty credit risk. It is possible that any such changes will adversely affect the servicing of the Reference Obligations.

Aspects of the Dodd-Frank Act and related regulatory changes that may affect Fannie Mae include minimum standards for residential mortgage loans, which could subject Fannie Mae to increased legal risk for some loans Fannie Mae acquires; and the development of credit risk retention regulations applicable to residential mortgage loan securitizations, which could impact the types and volume of loans sold to Fannie Mae. Under the "ability to repay" rule of the CFPB, there is uncertainty as to whether the rule may increase Fannie Mae's legal risk for loans Fannie Mae acquires. Fannie Mae could also be designated as a systemically important nonbank financial company subject to supervision and regulation by the Federal Reserve. If this were to occur, the Federal Reserve would have the authority to examine Fannie Mae and could impose stricter prudential standards on Fannie Mae, including risk-based capital requirements, leverage limits, liquidity requirements, credit concentration limits, resolution plan and credit exposure reporting requirements, overall risk management requirements, contingent capital requirements, enhanced public disclosures and short-term debt limits.

For example, the CFPB rules relating to mortgage servicing prohibit a servicer from commencing a foreclosure until a mortgage loan is more than 120 days delinquent. The rules also require servicers to provide certain notices and follow specific procedures relating to loss mitigation and foreclosure alternatives. The CFPB rules also revise and amend provisions regarding force-placed insurance notices, policies and procedures, early intervention and loss mitigation requirements under Regulation X's servicing provisions, prompt crediting and periodic statement requirements under Regulation Z's servicing provisions, and compliance under certain servicing requirements when a person is a potential or confirmed successor in interest, is a debtor in bankruptcy, or sends a cease communication request under the Fair Debt Collection Practices Act. In addition, the State of California in 2012 enacted the Homeowner's Bill of Rights, which requires similar changes in delinquent loan servicing and foreclosure procedures.

Furthermore, the CFPB promulgated TRID to reconcile and improve overlapping disclosure obligations under TILA and RESPA relating to residential mortgage loans. A number of violations of TRID have been reported in the marketplace since it became effective. There are interpretive uncertainties under TRID, both as to the liability associated with some of the violations, and whether and how some of the violations may be cured. Although TRID provides for a mechanism to cure certain non-numerical "clerical" errors in the closing disclosure, uncertainties remain as to liability for violating other requirements in the closing disclosure and in the loan estimate, including some minor, or technical violations that may not be covered by TRID's cure mechanism. The Director of the CFPB released a letter that provides informal guidance with respect to some of these uncertainties; however, the CFPB Director's Letter is not binding on the CFPB, any other regulator or the courts and does not necessarily reflect how courts and regulators, including the CFPB, may view liability for TRID violations in the future. On July 7, 2017 and again on April 26, 2018, the CFPB finalized amendments to its "Know Before You Owe" mortgage disclosure rule that are intended to formalize guidance, set forth corrections and provide greater clarity and certainty with regard to the rule; however, the CFPB has noted that the amendments do not and cannot address all concerns previously raised to the CFPB in connection with the rule. No assurance can be given that any future rulemaking or guidance by the CFPB will clarify the ambiguities of TRID or that future CFPB rulemaking with respect to TRID's cure provisions, if any, will be consistent with the CFPB Director's Letter.

These laws and regulatory changes could significantly expand mortgage costs and liabilities leading to negative effects on the Reference Pool. The Reference Pool could also be affected by legislative or regulatory changes that permit or require principal reductions or forgiveness, including through the bankruptcy process, which could also affect how Fannie Mae determines principal prepayments. As an example, if Fannie Mae is permitted or required to effect principal reductions with respect to certain delinquent Reference Obligations, any such forgiven principal with respect to a Payment Date will result in an increased amount of Unscheduled Principal, which will lead to an increased amount of principal being paid on the Notes for such Payment Date. These laws and regulations are sometimes adopted with little advance warning and Fannie Mae and its loan sellers and servicers may have limited ability to participate in the legislative or regulatory process.

Because the U.S. Administration has signaled its intention to revise or remove certain implementing regulations under the Dodd-Frank Act that are already in place, it is difficult to assess fully the impact of this legislation on Fannie Mae's business and industry at this time, and Fannie Mae cannot predict what similar changes to statutes or regulations will occur in the future.

In addition to the Dodd-Frank Act and the possible reform of Fannie Mae and Freddie Mac discussed in this Offering Memorandum, Fannie Mae's business operations and those of its loan sellers and servicers may be adversely affected by other legislative and regulatory actions at the federal, state and local levels, including legislation or regulatory action affecting the loss mitigation, preforeclosure and foreclosure processes. Various

states and local jurisdictions have implemented mediation programs designed to bring servicers and borrowers together to negotiate workout options. These actions could delay the final resolution of seriously delinquent mortgage loans and lead to increased Credit Events and Credit Event Net Losses. Fannie Mae and its servicers could also be affected by any legislative or regulatory changes that would expand the responsibilities and liability of servicers and assignees for maintaining vacant properties prior to foreclosure.

Furthermore, the actions of Treasury, the Commodity Futures Trading Commission, the SEC, the Federal Deposit Insurance Corporation ("**FDIC**"), the Federal Reserve and international central banking authorities directly or indirectly impact financial institutions' cost of funds for lending, capital-raising and investment activities, which could increase Fannie Mae's borrowing costs or make borrowing more difficult for Fannie Mae. Changes in monetary policy are beyond Fannie Mae's control and difficult to anticipate.

Moreover, Basel III's revisions to international capital requirements also may have a significant impact on Fannie Mae. Depending on how they are implemented by regulators, the Basel III rules could be the basis for a revised framework for government-sponsored enterprise capital standards that could increase Fannie Mae's capital requirements.

Overall, the foregoing legislative and regulatory developments could affect Fannie Mae in substantial and unforeseeable ways and could have a material adverse effect on the Reference Pool as well as Fannie Mae's business, results of operations, financial condition, liquidity and net worth.

Violation of Various Federal, State and Local Laws May Result in Losses on the Reference Obligations

Applicable state and local laws generally regulate interest rates and other charges, require specific disclosure and require licensing of the originator. In addition, other state and local laws, public policy and general principles of equity relating to the protection of consumers, unfair and deceptive practices and debt collection practices may apply to the origination, servicing and collection of the Reference Obligations.

The Reference Obligations are also subject to federal laws, including:

- the Federal Truth-in-Lending Act and Regulation Z promulgated thereunder (including the TILA-RESPA Know Before You Owe Integrated Disclosure Rule ("**TRID**")), which require specific disclosures to the Mortgagors regarding the terms of the Reference Obligations;
- the Homeownership and Equity Protection Act ("**HOEPA**"), as amended by the Dodd-Frank Act, and state, county and municipal "high cost" laws and ordinances enacted to combat predatory or abusive lending;
- the Equal Credit Opportunity Act and Regulation B promulgated thereunder, which prohibit discrimination on the basis of age, race, color, sex, religion, marital status, national origin, receipt of public assistance or the exercise of any right under the Consumer Credit Protection Act, in the extension of credit;
- the Fair Credit Reporting Act, which regulates the use and reporting of information related to the borrower's credit experience; and
- the Real Estate Settlement and Procedures Act ("**RESPA**"), as amended, and Regulation X promulgated thereunder, which impose requirements pertaining to (a) disclosure of certain terms of mortgage loans prior to origination and during the servicing life of the loan, and (b) mitigation and foreclosure activities, among other requirements, which is implemented through TRID for mortgage loan applications received on or after October 3, 2015.

Depending on the provisions of the applicable law and the specific facts and circumstances involved, violations of these federal or state laws, policies and principles may limit the ability to collect all or part of the principal of or interest on the Reference Obligations, may result in a defense to foreclosure or an "unwinding" or rescission of the Reference Obligations and may entitle the borrower to a refund of amounts previously paid. These effects may in turn reduce the Liquidation Proceeds received with respect to a Reference Obligation and thus increase the Tranche Write-down Amount allocated to the Reference Tranches and the corresponding principal write-downs on the Notes. See "*Certain Legal Aspects of the Reference Obligations*" below.

In particular, liability under TILA for violations of TRID may include actual damages, statutory damages, attorneys' fees and court costs. Further, for certain loans, the right of rescission may be extended to three years from consummation if there were errors in certain "material disclosures" or the notice of right to cancel required under TILA. It is likely that a majority of the Reference Obligations will be subject to TRID. Neither Fannie Mae nor the Diligence Provider conducted a post-purchase loan file review for any of the Reference Obligations for technical compliance with TRID or certain other TILA provisions; however, consistent with current practices, Fannie Mae and the Diligence Provider evaluated whether the correct disclosure forms were used in connection with the origination of the Reference Obligations that were not secured by investment properties that were reviewed by Fannie Mae and the Diligence Provider as described herein under "*The Reference Obligations — Results of Fannie Mae Quality Control*" and "*The Reference Obligations — Due Diligence Review*". As a result, it is possible that certain Reference Obligations that are subject to TRID or that have other TILA violations may have underwriting defects of which Fannie Mae is not aware. Damages or costs resulting from a TRID or other TILA violation could reduce the Liquidation Proceeds received with respect to a Credit Event Reference Obligation, which may in turn increase the Tranche Write-down Amount allocated to the Reference Tranches and the corresponding principal write-downs on the Notes. In the event Fannie Mae were to discover a TRID or other TILA violation with respect to a Reference Obligation and deliver a request to the related seller or servicer to repurchase such Reference Obligation, such Reference Obligation may result in a Reference Pool Removal. Reference Pool Removals could have the same effect on the Reference Pool as prepayments in full. However, under Fannie Mae's current policies, Fannie Mae does not intend to deliver a request to the related seller or servicer to repurchase a Reference Obligation that is discovered to have a technical TRID or other TILA violation unless (a) the form required under TRID or TILA is not used or (b) a particular practice would impair enforcement of the mortgage loan or would result in assignee liability and a court of law, regulator, or other authoritative body has determined that such practice violates TRID or TILA. See "*— The Timing of Credit Events and Modification Events (and the Severity of Losses Realized with Respect Thereto) May Affect Yields on the Notes*" and "*— Fannie Mae's Review of Reference Obligations That Become Credit Event Reference Obligations May Not Result in Reversed Credit Event Reference Obligations*".

Risks Relating to Fannie Mae

In addition to the risks relating to Fannie Mae elsewhere in these Risk Factors, investors should carefully consider the risk factors set forth in Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2018, which is incorporated in this Offering Memorandum by reference, including the risk that Fannie Mae may be required to draw additional funds under the Senior Preferred Stock Purchase Agreement as described under "*Fannie Mae — Regulation and Conservatorship*".

A Receiver May Transfer or Sell Fannie Mae's Assets and Liabilities; Risks Associated with the Assignment of Fannie Mae's Obligations to Pay Capital Contribution Amounts

On September 6, 2008, FHFA was appointed Fannie Mae's conservator by the FHFA director. See "*Fannie Mae — Regulation and Conservatorship*" in this Offering Memorandum. If FHFA were to be appointed as receiver for Fannie Mae, the receiver would have the right to transfer or sell any asset or liability of Fannie Mae, without any approval, assignment or consent. If the receiver were to transfer Fannie Mae's obligations under the Collateral Administration Agreement and the Capital Contribution Agreement to another party, Noteholders would be exposed to the credit risk of that party.

FHFA Could Terminate the Conservatorship by Placing Fannie Mae into Receivership, Which Could Adversely Affect Noteholders

Under HERA, FHFA must place Fannie Mae into receivership if the director of FHFA makes a determination in writing that Fannie Mae's assets are, and for a period of 60 days have been, less than Fannie Mae's obligations, or if Fannie Mae is not, and for a period of 60 days have not been, generally paying Fannie Mae's debts as they become due. FHFA has notified Fannie Mae that the measurement period for any mandatory receivership determination with respect to Fannie Mae's assets and obligations would commence no earlier than the SEC public filing deadline for its quarterly or annual financial statements and would continue for sixty calendar days after that date.

The director of FHFA may also place Fannie Mae into receivership at his or her discretion for certain other reasons, including conditions that FHFA has already asserted existed at the time the director of FHFA placed Fannie Mae into conservatorship. A receivership would terminate the current conservatorship. If FHFA were to become Fannie Mae's receiver, it could exercise certain powers that could adversely affect the Holders of the Notes.

As receiver, FHFA could repudiate any contract entered into by Fannie Mae prior to its appointment as receiver if FHFA determines, in its sole discretion, that performance of the contract is burdensome and that repudiation of the contract promotes the orderly administration of Fannie Mae's affairs. HERA requires that any exercise by FHFA of its right to repudiate any contract occur within a reasonable period following its appointment as receiver.

If FHFA, as receiver, were to repudiate Fannie Mae's obligations under Collateral Administration Agreement or the Capital Contribution Agreement, the receivership estate would be liable for actual direct compensatory damages as of the date of receivership under HERA. Any such liability could be satisfied only to the extent that Fannie Mae's assets were available for that purpose. If FHFA as receiver were to repudiate the Collateral Administration Agreement, then Fannie Mae may no longer be obligated to pay any Transfer Amounts or Return Reimbursement Amounts to the Issuer. If FHFA as receiver were to repudiate the Capital Contribution Agreement, then Fannie Mae may no longer be obligated to pay Capital Contribution Amounts to the Issuer. Whether or not FHFA as receiver repudiates the Capital Contribution Agreement or the Collateral Administration Agreement, the Issuer may be treated as a general unsecured creditor of Fannie Mae with respect to any unpaid Capital Contribution Amounts, Transfer Amounts, or Return Reimbursement Amounts that accrued prior to the commencement of the receivership. A receivership of Fannie Mae is not an event of default under the Indenture.

During a receivership, certain rights of the Issuer under the Collateral Administration Agreement and the Capital Contribution Agreement (or the Indenture Trustee, on behalf of Noteholders, as a result of the pledge of these agreements under the Indenture) may not be enforceable against FHFA, or enforcement of such rights may be delayed.

HERA also provides that no person may exercise any right or power to terminate, accelerate or declare an event of default under certain contracts to which Fannie Mae is a party, or obtain possession of or exercise control over any property of Fannie Mae, or affect any contractual rights of Fannie Mae, without the approval of FHFA as receiver, for a period of 90 days following the appointment of FHFA as receiver.

Additionally, during a receivership, FHFA could take the position that Fannie Mae's contribution of Designated Q-REMIC Interests to the Issuer constitutes only the grant of a security interest under applicable law, that Fannie Mae continues to own the Designated Q-REMIC Interests, and that FHFA as receiver should control and administer the Designated Q-REMIC Interests.

HERA provides general exceptions to the powers of FHFA as receiver. The legal isolation of the Designated Q-REMIC Interests, effectuated by Fannie Mae's contribution thereof to the Issuer, falls under the general exceptions, insofar as the Designated Q-REMIC Interests are interests in pools of mortgages. If FHFA were to dispute that the Designated Q-REMIC Interests are interests in pools of mortgages, Fannie Mae's contribution thereof to the Issuer may still be respected in the event of any receivership on equitable grounds because the contribution is intended to enhance the assets of Fannie Mae's conservatorship estate. However, if a court were to hold that the Designated Q-REMIC Interests are not interests in pools of mortgages and that the equities do not require that FHFA respect the contribution, the Designated Q-REMIC Interests could be subject to administration in Fannie Mae's receivership estate, and there could be delays or reductions in payments to Noteholders and in efforts to enforce recourse against the Designated Q-REMIC Interests, or other losses with respect to the Notes.

The Cash Collateral Account and the Eligible Investments held therein are legally isolated from any receivership estate of Fannie Mae because Fannie Mae will never have had any interest in the Note proceeds used to purchase the Eligible Investments in the Cash Collateral Account. The legal isolation of the Cash Collateral Account, Eligible Investments and Designated Q-REMIC Interests could nonetheless be challenged if FHFA asks a court to substantively consolidate the Issuer with Fannie Mae and to pool all of their respective assets for distributions to creditors. HERA does not expressly authorize FHFA, as receiver, to substantively consolidate affiliates into Fannie Mae, and the disregard of an entity's separate existence is not generally favored. However, if substantive consolidation were nonetheless to occur, there could be delays or reductions in payments to Noteholders and in the enforcement of rights to payments from the Designated Q-REMIC Interests and the Cash Collateral Account, or other losses with respect to the Notes.

If the Designated Q-REMIC Interests, the Cash Collateral Account or the Eligible Investments held therein were subject to administration in Fannie Mae's receivership estate, the lien under the Indenture should be respected. However, if FHFA as receiver were to establish a successor to Fannie Mae that acquired Fannie Mae's assets and obligations, the lien of the Indenture may be subject to a priming lien in favor of any such successor if the successor is unable to obtain unsecured or subordinate secured credit or issue unsecured or subordinate secured debt and the

successor provides Noteholders with adequate protection in the form of periodic cash payments, additional or replacement liens or other similar relief, which could delay or reduce payments to Noteholders. If the lien of the Indenture is not perfected with respect to the Designated Q-REMIC Interests, the Issuer may be treated as an unsecured creditor of Fannie Mae with respect to amounts payable pursuant to the Designated Q-REMIC Interests. Fannie Mae can provide no assurance that the lien of the Indenture is perfected with respect to the Designated Q-REMIC Interests.

There may be delays in payments on the Notes while the court considers any of these issues. There may be other possible effects of a receivership of Fannie Mae that could result in delays or reductions in payments on the Notes, or other losses with respect to the Notes. Regardless of any specific adverse determinations in a receivership of Fannie Mae, the existence of a receivership of Fannie Mae could have an adverse effect on the liquidity or value of the Notes.

Insolvency of the Capital Contribution Assignee Could Cause Losses

Fannie Mae has the right to assign its obligation to make capital contributions to the Issuer under the Capital Contribution Agreement to the Capital Contribution Assignee. If Fannie Mae were to assign its obligation to make capital contributions, and the Capital Contribution Assignee were to become insolvent, or become subject to a bankruptcy, receivership, or similar proceeding, delays or reductions in payments on the Notes, or other losses with respect to the Notes could result. Fannie Mae has no obligation to compensate for any such delays, reductions or losses.

Fannie Mae's Changes in Business Practices May Negatively Impact the Noteholders

Fannie Mae has a set of policies and procedures that it follows in the normal course of its mortgage loan purchase and servicing business, which are generally described in this Offering Memorandum. Certain of these practices are subject to change over time, as a result of changes in the economic environment and as a result of regulatory changes and changes in requirements of Fannie Mae's regulators, including implementation of the "Single Security Initiative", among other reasons. Fannie Mae may at any time change its servicing requirements, quality control policies and quality assurance policies, policies governing the pursuit of remedies for breaches of selling representations and warranties, policies governing borrower prepayment options, and other policies and procedures as Fannie Mae deems appropriate in light of Fannie Mae's then-current business needs, regardless of the resulting impact on the Noteholders. These changes may in some cases affect the Reference Obligations; in other cases, these changes may have no direct effect on the Reference Obligations. See "*Loan Acquisition Practices and Servicing Standards — Single-Family Business Overview*" in this Offering Memorandum. In undertaking any changes to Fannie Mae's practices or its policies and procedures, Fannie Mae may exercise complete discretion without regard to the impact of any such changes on the Noteholders. Moreover, Fannie Mae may undertake changes that negatively impact the Noteholders in pursuing other interests, including, but not limited to, minimizing losses for the taxpayers and Fannie Mae's shareholders and complying with requirements put forth by Fannie Mae's regulators, among others.

Risks Related to Eligible Investments

Noteholders Are Exposed to the Value of the Eligible Investments in the Cash Collateral Account

The Issuer's source of funds for repayment of the outstanding Class Principal Balances of the Notes generally will be limited to the proceeds of the liquidation of the Eligible Investments in the Cash Collateral Account and any Return Reimbursement Amounts Fannie Mae is required to make under the Collateral Administration Agreement. A decrease in market value of the Eligible Investments could result in the failure of Noteholders to receive the full amount of principal payable on a Payment Date in the event that Fannie Mae does not pay the Investment Liquidation Contribution portion of the Capital Contribution Amount, if any, for such date.

The Issuer's source of funds for payment of interest on the Notes will be investment earnings on the Eligible Investments in the Cash Collateral Account and any Transfer Amounts (it being understood that the Trust Estate Yield for a Payment Date will be deemed to satisfy, up to the amount of such Trust Estate Yield, Fannie Mae's Transfer Amount payment obligation for the related Remittance Date) and the LIBOR Interest Component Contribution portion of Capital Contribution Amounts Fannie Mae is required to make under the Collateral Administration Agreement and the Capital Contribution Agreement. A decrease in the investment earnings on the Eligible Investments could result in the failure of Noteholders to receive the full amount of accrued interest payable

on a Payment Date in the event that Fannie Mae does not pay the LIBOR Interest Component Contribution portion of the Capital Contribution Amount and/or the Transfer Amount, if any, for such date.

There May be Delays or Losses in the Redemption of Eligible Investments

In the event of market disruptions, systems operational failures or other circumstances beyond the control of the Investment Agent and the Custodian, Eligible Investments may be subject to delayed redemptions or in some cases may result in investment losses. Any such delays or losses could result in delays or losses in payment on the Notes in the event Fannie Mae is unable to pay the Investment Liquidation Contribution portion of Capital Contribution Amounts as required under the Capital Contribution Agreement.

Redeeming Units of an Eligible Investment During an Unfavorable Market Environment May Affect the Net Asset Value of Such Eligible Investment

Any Eligible Investment could experience a decrease in net asset value and/or a negative yield, particularly in times of overall market turmoil or declining prices for the Eligible Investments sold, or when the markets are illiquid. When markets are illiquid, the Investment Agent may be unable to sell illiquid Eligible Investments at the desired time or price. Illiquidity can be caused by, among other things, a drop in overall market trading volume, an inability to find a ready buyer, or legal restrictions on the resale of the Eligible Investments. Certain Eligible Investments that were liquid when purchased may later become illiquid, particularly in times of overall economic distress. In selling Eligible Investments prior to maturity, any such Eligible Investment may realize a price higher or lower than that paid to acquire such Eligible Investment, depending upon whether interest rates have decreased or increased since their acquisition. In addition, the Investment Agent may experience delays in its ability to liquidate the Eligible Investments due to an unfavorable market environment or other factors or, upon such liquidation, the amounts realized from the liquidation of the Eligible Investments may be less than the outstanding principal amount thereof. These conditions could materially and adversely affect the Issuer's ability to pay (i) interest payable on the Notes, should Fannie Mae fail to make required payments in respect of Transfer Amounts under the Collateral Administration Agreement or should Fannie Mae (or the Capital Contribution Assignee, if any) fail to pay the LIBOR Interest Component Contribution portion of Capital Contribution Amounts under the Capital Contribution Agreement and (ii) the principal then due and payable on the Notes, should Fannie Mae fail to pay the Investment Liquidation Contribution portion of Capital Contribution Amounts under the Capital Contribution Agreement.

Unfavorable Market Conditions May Cause Changes in an Investment's Yield

Although the market value, yield and liquidity of the Eligible Investments are generally less sensitive to changes in market interest rates than are funds that invest in longer-term investments, changes in short-term interest rates may cause changes to the market value, yield and liquidity of the Eligible Investments. During periods of rising interest rates, an Eligible Investment's yield (and its market value) will tend to be lower than prevailing market rates. In addition, a low-interest rate environment may prevent an Eligible Investment from providing a positive yield or maintaining a stable net asset value, and may cause an Eligible Investment to provide a negative yield. Market disruptions also may impair the liquidity of any Eligible Investments. If the market value, yield and/or liquidity of an Eligible Investment is impaired, the Issuer's ability to pay the outstanding principal amount of and/or interest on the Notes could be materially and adversely affected, should Fannie Mae fail to pay the Investment Liquidation Contribution portion of Capital Contribution Amounts as required by the Capital Contribution Agreement.

Investment Factors and Risks Related to the Notes

The Issuer May Not Be Able to Repay Your Notes in Full

The Notes do not represent obligations of any person or entity other than the Issuer and do not represent a claim against any assets other than the assets of the Issuer. The Notes are not debt obligations of Fannie Mae. Moreover, no governmental agency or instrumentality will guarantee or insure payment on the Notes. If the Issuer is unable to make payments on the Notes, no other assets will be available to you for payment of the deficiency, and you will bear the resulting loss.

Limited Source of Payments; No Recourse to Reference Obligations

The Notes are not insured by any financial guaranty insurance policy. The Notes do not represent an interest in the Reference Obligations nor an obligation of Fannie Mae, the Indenture Trustee, the Initial Purchasers or any of their respective affiliates. The Notes will be non-recourse obligations of the Issuer only.

Credit Support Available to Corresponding Classes of Reference Tranches Pursuant to Hypothetical Structure Is Limited and May Not Be Sufficient to Prevent Loss on Your Notes

Although subordination provided by the Reference Tranches is intended to reduce the risk of exposure of Credit Events and Modification Events for more senior Classes of Notes, the amount of such subordination will be limited and may decline under certain circumstances described in this Offering Memorandum. Further, the Class 1B-2H Reference Tranche is subordinate to all the other Reference Tranches and therefore does not benefit from any credit enhancement (other than any Overcollateralization Amount).

Regardless of any subordination provided pursuant to the hypothetical structure, if Fannie Mae were to experience significant financial difficulties, or if FHFA were to place Fannie Mae in receivership and its obligations under the Collateral Administration Agreement or Capital Contribution Agreement were repudiated as described above in "*Risks Relating to Fannie Mae — FHFA Could Terminate the Conservatorship by Placing Fannie Mae into Receivership, Which Could Adversely Affect Fannie Mae's Performance under the Collateral Administration Agreement and/or Capital Contribution Agreement*," the Holders of Notes may suffer losses as a result of the various contingencies described in this "Risk Factors" section and elsewhere in this Offering Memorandum. The Notes, including interest thereon, are not guaranteed by Fannie Mae or the United States and do not constitute debts or obligations of Fannie Mae, the United States or any agency or instrumentality of the United States.

Subordination of Corresponding Classes of Reference Tranches Increases Risk of Loss on the Notes

The Tranche Write-down Amounts for any Payment Date will be allocated, *first*, to reduce any Overcollateralization Amount for such Payment Date, until such Overcollateralization Amount is reduced to zero. Thereafter, all additional Tranche Write-down Amounts will be allocated:

first, to the Class 1B-2H Reference Tranche,

second, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount,

third, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount,

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount,

fifth, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount,

sixth, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount, and

seventh, to the Class 1A-H Reference Tranche (up to the amount of any remaining unallocated Tranche Write-down Amounts less the amount attributable to clause (d) of the definition of "Principal Loss Amount"),

in each case until the Class Notional Amount of each such Class is reduced to zero. Any Tranche Write-down Amounts allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche will result in a corresponding decrease in the Class Principal Balance of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount that is allocable to the related Exchangeable Notes will be allocated to decrease the Class Principal Balance or Class Notional Amount, as applicable, of the RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero). Any such allocations will result, in turn, in investment losses to the related Noteholders. Moreover, since the Minimum Credit Enhancement Test is not satisfied on the Closing Date, any reductions in the Class 1B-2H Reference Tranche, Class 1B-1 and Class 1B-1H Reference Tranches, Class 1M-2C and Class 1M-CH Reference Tranches, Class 1M-2B and Class 1M-BH Reference Tranches, Class 1M-2A and Class 1M-AH Reference Tranches or Class 1M-1 and Class 1M-1H Reference Tranches may further delay the Subordinate Percentage from meeting the related Minimum Credit Enhancement Test and thus further delay the allocation of certain payments of principal to the Notes.

Similarly, Modification Loss Amounts may be allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche as described under "*Description of the Notes—Hypothetical Structure and Calculations with Respect to the Reference Tranches—Allocation of Modification Loss Amount*" and will result in a corresponding reduction of the Interest Payment Amount of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable. If any RCR Notes are held by Holders, any Modification Loss Amount that is allocable to the related Exchangeable Notes will be allocated to decrease the Class Principal Balance or Class Notional Amount, as applicable, of the RCR Notes. As such a Class of Notes will be more sensitive than each more senior Class of Notes to Tranche Write-down Amounts after the Class Notional Amount of each more subordinate Reference Tranche is reduced to zero.

If a purchaser of a Class of Notes calculates its anticipated yield based on an assumed rate of Credit Events and Modification Events with respect to the Reference Obligations that is lower than the rate actually incurred on such Reference Obligations, its actual yield to maturity may be lower than that so calculated and could be negative such that such purchaser may never receive all of his initial investment. Moreover, under the Collateral Administration Agreement, payments of Return Amounts to Fannie Mae will reduce the amounts available for payment to Noteholders. The timing of Credit Events and Modification Events on the related Reference Obligations and the severity of losses realized with respect thereto will also affect a purchaser's actual yield to maturity, even if the average rate is consistent with the purchaser's expectations. In general, the earlier the Notes suffer a reduction in Class Principal Balance due to the application of Tranche Write-down Amounts or Modification Loss Amounts or a reduction in Interest Payment Amounts due to the allocation of Modification Loss Amounts, the greater the effect on the purchaser's yield to maturity. See "*Prepayment and Yield Considerations*" in this Offering Memorandum.

For a more detailed description of the subordination feature with respect to the hypothetical structure and the Reference Tranches, see "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches*" in this Offering Memorandum.

Significant Write-downs of the Notes That are Subsequently Subject to Write-ups Will Result in Lost Accrued Interest

Any Tranche Write-down Amounts allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche will result in a corresponding decrease in the Class Principal Balance of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount that is allocable to the related Exchangeable Notes will be allocated to decrease the Class Principal Balance or Class Notional Amount, as applicable, of the RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero).

Any subsequent increase in the Class Principal Balance or Class Notional Amount, as applicable, of a Class of Notes as a result of the reversal of Credit Events involving Reference Obligations will not entitle a Holder of such Class of Notes to any interest that would otherwise have been due during any periods of reduction of the Class Principal Balance or Class Notional Amount, as applicable, of such Class. Noteholders could suffer significant loss of accrued interest to the extent of any extended period between a reduction and subsequent increase of the Class Principal Balance or Class Notional Amount, as applicable, of the Notes. Credit Events may ultimately be reversed, resulting in Tranche Write-up Amounts that write up the Class Notional Amounts of the related Reference Tranches.

LIBOR Levels Could Reduce the Yield on the Floating Rate Notes

Lower than anticipated levels of One-Month LIBOR could result in actual yields on the floating rate Notes that are lower than anticipated. One-Month LIBOR is not likely to remain constant at any level. The timing of a change in the level of One-Month LIBOR may affect the actual yield received, even if the average level is consistent with an investor's expectation. In general, the earlier a change in the level of One-Month LIBOR, the greater the effect on yield. As a result, the effect on the yield received due to a One-Month LIBOR that is lower (or higher) than the rate anticipated during earlier periods is not likely to be offset by a later equivalent increase (or reduction). Moreover, changes may not correlate with changes in interest rates generally or with changes in other indices. The yield could be either adversely or positively affected if changes in One-Month LIBOR do not reflect changes in interest rates generally.

Uncertainty as to the Determination of LIBOR and the Potential Phasing Out of LIBOR after 2021 May Adversely Affect the Value of the Floating Rate Notes.

Regulators and law enforcement agencies in the United Kingdom and elsewhere are conducting civil and criminal investigations into whether bank members of the British Bankers' Association (the "BBA") that contribute to the calculation of daily LIBOR may have been misreporting or otherwise manipulating LIBOR. A number of BBA member banks have entered into settlements with regulators and law enforcement agencies with respect to the alleged manipulation of LIBOR. On July 27, 2017, the U.K. Financial Conduct Authority announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021.

In addition, in early 2018, the ICE Benchmark Administration (the "IBA"), stated its intention to continue to administer and quote LIBOR after 2021, possibly employing an alternative methodology. Therefore, no assurance can be given that LIBOR on any date accurately represents the London interbank rate or the rate applicable to actual loans in U.S. dollars for the relevant period between leading European banks, or that the underlying methodology for LIBOR will not change.

Efforts to identify a set of alternative U.S. dollar reference interest rates include proposals by the Alternative Reference Rates Committee (the "ARRC") of the Federal Reserve Board and the Federal Reserve Bank of New York. Fannie Mae is a member of the ARRC and is participating in several of its working groups. At present, Fannie Mae is unable to predict the effect of any alternative reference rates that may be established or any other reforms to LIBOR that may be adopted in the United Kingdom, in the U.S. or elsewhere. Uncertainty as to the nature of such potential changes, alternative reference rates or other reforms may adversely affect the trading market for LIBOR-based securities, including the floating rate Notes. Moreover, any future reform, replacement or disappearance of LIBOR may adversely affect the value of and return on the floating rate Notes.

The Use of an Alternative Method or Index in Place of LIBOR for Determining Monthly Interest Rates May Adversely Affect the Value of Certain Notes.

As described under "Description of the Notes — Interest," Fannie Mae, as holder of the Ownership Certificate, may in its discretion designate an alternative method or, if appropriate, an alternative index for the determination of monthly interest rates on the floating rate Notes if, among other things, Fannie Mae determines that continued reliance on the customary method for determining LIBOR is no longer viable. Fannie Mae can provide no assurance that any such alternative method or index will yield the same or similar economic results over the lives of the related Notes. In addition, although Fannie Mae's designation of any alternative method or index will take into account various factors, including then-prevailing industry practices, there can be no assurance that broadly adopted industry practices will develop, and it is uncertain what effect any divergent industry practices will have on the value of and return on the floating rate Notes.

The Use of an Alternative Method or Index in Place of LIBOR for Determining Monthly Interest Rates May Result in Adverse Tax Consequences with Respect to Certain Notes.

The tax consequences of the designation of an alternative method or index in place of LIBOR for determining monthly interest rates are unclear. It is possible that if Fannie Mae elects to designate an alternative method or index, such designation could be treated as a modification of a debt instrument that constitutes a "significant modification" under Treasury Regulations section 1.1001-3 ("Significant Modification"), which may result in a deemed taxable exchange of the related Notes and the realization of gain or loss. The Internal Revenue Service (the "IRS") has issued favorable guidance that may reduce the likelihood of a Significant Modification, but we can provide no assurance that designation of an alternative method or index will not result in such tax consequences. See "Certain U.S. Federal Income Tax Consequences — Designation of an Alternative Method or Index in Place of LIBOR".

The Minimum Credit Enhancement Test Will Not Be Satisfied at Closing With a Potential Effect Over Time of Extending the Weighted Average Lives of the Notes

Under the cash flow allocation features governing the Notes, no payments of Unscheduled Principal to the Notes will be made until the Minimum Credit Enhancement Test is satisfied (other than in respect of principal payments in respect of any Supplemental Subordinate Reduction Amounts allocated to the related Reference Tranches prior satisfaction of the Minimum Credit Enhancement Test). On the Closing Date, the approximate initial Subordinate Percentage will be 3.95% and will not satisfy the Minimum Credit Enhancement Test until it equals 4.650000%. It is possible that the Minimum Credit Enhancement Test will not be satisfied for an indefinite period thereafter. Accordingly, it is possible under certain scenarios that no Unscheduled Principal payments will be made

on the Notes for a prolonged period and that the weighted average lives of the affected Classes of Notes will be extended as a result. Investors should consider the potential impact of this feature on their investments in the Notes.

Changes in the Market Value of the Notes May Not Be Reflective of the Performance or Anticipated Performance of the Reference Obligations

The market value of the Notes may be volatile. These market values can change rapidly and significantly and changes can result from a variety of factors. However, a decrease in market value may not necessarily be the result of deterioration in the performance or anticipated performance of the Reference Obligations. For example, changes in interest rates, perceived risk, supply and demand for similar or other investment products, accounting standards, capital requirements that apply to regulated financial institutions and other factors that are not directly related to the Reference Obligations can adversely and materially affect the market value of the Notes.

There May be Limited Liquidity of the Notes, Which May Limit Your Ability to Sell the Notes

The Notes constitute an issuance of Connecticut Avenue Securities with a structure that allocates actual losses to the Notes. Additionally, certain payments payable by the Issuer to Fannie Mae will reduce amounts available for payments of principal of the Notes. Furthermore, in contrast to prior Connecticut Avenue Securities issuances, the Notes will be issued pursuant to a new transaction structure in which the Notes do not represent direct obligations of Fannie Mae. The Notes will not be required to be listed on any national securities exchange or traded on any automated quotation systems of any registered securities association. The Initial Purchasers will have no obligation to make a market in the Notes. As a result, there can be no assurance as to the liquidity of the market that may develop for the Notes, or if it does develop, that it will continue. It is possible that investors who desire to sell their Notes in the secondary market may find no or few potential purchasers and experience lower resale prices than expected. Investors who desire to obtain financing for their Notes similarly may have difficulty obtaining any credit or credit with satisfactory interest rates which may result in lower leveraged yields and lower secondary market prices upon the sale of the Notes.

Fannie Mae makes no representation as to the proper characterization of the Notes for legal investment, regulatory, financial reporting or other purposes, as to the ability of particular investors to purchase the Notes under applicable legal investment or other restrictions or as to the consequences of an investment in the Notes for such purposes or under such restrictions. The liquidity of trading markets for the Notes may also be adversely affected by general declines or disruptions in the credit markets. Such market declines or disruptions could adversely affect the liquidity of and market for the Notes independent of the credit performance of the Reference Pool or its prospects. Fannie Mae has no obligation to continue to sponsor transactions structured to issue securities similar to the Notes or with similar terms. FHFA may require Fannie Mae to discontinue sponsoring transactions structured to issue such securities or require that alternative risk sharing transactions be effected, thereby affecting the development of the market for the Notes. Further, even though Fannie Mae is required to work together with Freddie Mac in implementing risk sharing transactions, the terms and structures of these transactions may be different.

Legal Investment Considerations May Restrict Certain Investors

The investment activities of certain investors are subject to legal investment laws and regulations, or review or regulation by certain authorities. Fannie Mae makes no representation as to the proper characterization of the Notes for legal investment, regulatory, financial reporting or other purposes, as to the ability of particular investors to purchase the Notes under applicable legal investment or other restrictions or as to the consequences of an investment in the Notes for such purposes or under such restrictions.

Investors should consult their legal advisors to determine whether and to what extent the Notes are legal investments for them, the Notes can be used as collateral for various types of borrowing, and other restrictions apply to their purchase or pledge of the Notes. Financial institutions should consult their legal advisors or the appropriate regulators to determine the appropriate treatment of the Notes under any applicable risk-based capital or similar rules. If an investor is subject to the jurisdiction of agencies of a governmental agency of the United States or any jurisdiction outside the United States with similar authority (e.g., central banks), it should review and consider that regulator's rules, guidelines, regulations and policy statements prior to purchasing or pledging the Notes.

Additionally, regulatory or legislative provisions applicable to certain investors may have the effect of limiting or restricting their ability to hold or acquire securities such as the Notes, which in turn may adversely affect the ability of Noteholders who are not subject to those provisions to resell their Notes in the secondary market. For example, the Issuer has been structured so as not to constitute a "covered fund" for purposes of the Volcker Rule.

The Issuer has not been registered and will not be registered with the SEC as an investment company pursuant to the Investment Company Act, in reliance on Section 2(b) thereof.

Risks Associated with the Commodity Exchange Act

Fannie Mae has determined, based on relevant facts and circumstances, that the transactions between the Issuer and Fannie Mae are not expected to be treated as swaps and, as a result, the Issuer is not expected to be treated as a commodity pool. There is a risk that such a determination could be challenged by the Commodity Futures Trading Commission ("CFTC").

Were the CFTC to determine that one or more of the transactions between the Issuer and Fannie Mae are "swaps" (as defined in the Commodity Exchange Act ("CEA") and CFTC regulations promulgated thereunder), the Issuer and Fannie Mae would be required to comply with numerous regulatory compliance obligations in respect of such transactions, and the Issuer could be deemed a "commodity pool," which creates additional obligations, including "commodity pool operator" registration (the terms "commodity pool" and "commodity pool operator" are defined in the CEA and CFTC regulations promulgated thereunder). If the Issuer were deemed to be a commodity pool, commodity pool operator registration could also be implicated for the operator of a fund or other collective investment vehicle that invests in the Notes.

A CFTC determination that the transactions between the Issuer and Fannie Mae are swaps and the resulting required compliance with the foregoing obligations by the Issuer and Fannie Mae or other transaction parties would not constitute an Event of Default under the Indenture, but would constitute a CAA Trigger Event giving Fannie Mae the right, but not the obligation, to cause an early redemption of the Notes. In view of the foregoing, it is possible that, following any such CFTC determination, investors that are funds or other collective investment vehicles may be subject to additional regulation by the CFTC under the CEA as a result of owning an investment in a commodity pool. Such investors may elect or be required to sell their Notes rather than comply with the resulting compliance requirements, which could also adversely affect the market value of the Notes and limit an investor's ability to resell the Notes in the future. Investors should consult their legal advisors to determine whether, and to what extent, they would be impacted if the Issuer were to be deemed a commodity pool and investments in the Notes were to be deemed an investment in commodity interests that could subject the investor to regulation as a commodity pool.

In the event the Issuer is determined to be a "commodity pool," the Issuer may also be considered a "covered fund" at that time, and Volcker Rule provisions could adversely affect the ability of certain financial institutions to continue to hold, purchase and sell the Notes and thus may adversely affect the marketability of the Notes. Entities that invest in the Notes should consult their attorneys and advisors regarding the potential impact of the Issuer becoming a "covered fund" under the Volcker Rule and the potential impact on their status or the status of persons who may be considered their operators for purposes of the Commodity Exchange Act and the CFTC's rules thereunder (including any applicable registration requirements or any exemption or exclusion with respect thereto) in the event that Fannie Mae decides that it or another transaction party must register with the CFTC as a commodity pool operator with respect to the Issuer following a determination that the Issuer is a "commodity pool," and does not elect to cause an early redemption of the Notes.

The Indenture Trustee will be directed to deliver to Noteholders any notification from Fannie Mae that Fannie Mae has determined that Fannie Mae or any other transaction party must register as a "commodity pool operator" or that the Issuer is a "commodity pool" under the Commodity Exchange Act, together with Fannie Mae's proposed course of action with respect to such determination.

Additional Governmental Actions in the U.S. and Abroad Could Adversely Affect the Market Value of the Notes

In February 2019, Senate Banking, Housing and Urban Affairs Committee Chairman Michael Crapo (R-ID) released an outline for U.S. mortgage finance reform legislation that, if enacted, would lead to significant changes in the business and structure of Fannie Mae and Freddie Mac. Other members of Congress have in the past proposed U.S. mortgage finance reform legislation providing for similarly significant changes. Fannie Mae cannot predict what reform legislation, if any, will be enacted.

In April 2016, at the direction of its regulator and conservator FHFA, Fannie Mae announced a program that permits principal forgiveness as a loss mitigation alternative for a limited number of loans that were 90 days or more delinquent and has an unpaid principal balance in excess of the value of the related mortgaged property as of March

2016. None of the Reference Obligations are eligible for inclusion in this program. While there is no indication that this program will be extended or replicated, if any similar program of principal reduction were to be employed in the future that affected the Reference Obligations, any principal that was forgiven with respect to a Reference Obligation would be treated as Unscheduled Principal on the related Payment Date. In the event that a Reference Obligation that is subject to principal forgiveness subsequently becomes a Credit Event Reference Obligation, the amount of the principal forgiveness that was previously treated as Unscheduled Principal would be allocated as a principal loss and may result in a Tranche Write-down Amount on the Notes, as described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Tranche Write-down Amounts.*" Similar programs providing for principal reduction may be employed in the future that affect the Reference Obligations with little or no advance warning to Fannie Mae or its sellers or servicers, and Fannie Mae and its sellers and servicers may have limited ability to participate in the related decision process.

FHFA may in the future direct Fannie Mae to undertake other activities, including implementing other programs or making changes to existing programs. Additionally, any changes in leadership at FHFA may increase the likelihood that FHFA's goals for Fannie Mae's conservatorship and resulting policy directives may change. These directives and goals may not necessarily align with the interests of Noteholders and Fannie Mae cannot predict their impact on Fannie Mae and the Notes. See also "*The Interests of Fannie Mae, the Initial Purchasers and Others May Conflict With and Be Adverse to the Interests of the Noteholders — Federal Housing Policy Objectives Adopted by Fannie Mae May Not Be Aligned With the Interests of the Noteholders.*"

In 2017, the U.S. Congress introduced several bills related to flood insurance. Some of the proposed legislation could limit Fannie Mae's ability to determine appropriate private flood insurance policies. Fannie Mae cannot predict whether any such legislation will be enacted or what effect any such legislation would have on Fannie Mae and the Notes. See "*Risk Factors — Risks Relating to Fannie Mae*".

In August 2014, the SEC adopted substantial revisions to Regulation AB under the Securities Act and other rules regarding the offering process, disclosure and reporting for "asset-backed securities," as that term is defined in the Exchange Act. In addition, pursuant to the Dodd-Frank Act, in October 2014, the SEC and other regulators adopted risk retention rules that require, among other things, that a sponsor of asset-backed securities, its affiliate or certain other eligible parties retain at least 5% of the credit risk underlying a non-exempt securitization, and in general prohibit the transfer or hedging of, and restrict the pledge of, the retained credit risk. The risk retention rules took effect for non-exempt residential mortgage-backed securities transactions issued on or after December 24, 2015 and on or after December 24, 2016 for all other non-exempt securitizations. Fannie Mae cannot predict what effect these new rules will have on the marketability of asset-backed securities. These rules should not be applicable to the Notes because the Notes are not asset-backed securities as defined in the Exchange Act. However, if the Notes are viewed in the financial markets as having traits in common with asset-backed securities, the Notes may be less marketable than asset-backed securities that are offered in compliance with these rules. Furthermore, if it is determined that the Notes are asset-backed securities as defined in the Exchange Act, the issuance and offering of the Notes will result in violations of certain rules and regulations applicable to asset-backed securities, including Regulation RR and Rules 15Ga-1 and 15Ga-2 under the Exchange Act. It is unclear what effect any such violation may have on transaction parties.

Investors should independently assess and determine whether they are subject to the "EU Due Diligence Requirements" of Article 5 of Regulation (EU) 2017/2402 (the "**EU Securitization Regulation**"), which apply to 'institutional investors' as defined therein ("**EU Institutional Investors**"). Investors should also independently assess the application of regulatory and implementing technical standards applicable to the EU Securitization Regulation and guidelines and other materials published by the European Banking Authority, the European Securities and Markets Authority and the European Commission in relation thereto (together with the EU Securitization Regulation, the "**European Securitization Rules**").

Amongst other things, the EU Due Diligence Requirements restrict an EU Institutional Investor from investing in a securitization unless the EU Institutional Investor has verified that: (a) the originator or original lender of the underlying exposures of the securitization grants all the credits giving rise to the underlying exposures on the basis of sound and well-defined criteria and clearly established processes for approving, amending, renewing and financing those credits and has effective systems in place to apply those criteria and processes to ensure that credit-granting is based on a thorough assessment of the obligor's creditworthiness; (b) the originator, sponsor or original lender of the securitization (i) retains on an ongoing basis a material net economic interest which, in any event, will not be less than 5%, determined in accordance with Article 6 of the EU Securitization Regulation, and (ii) discloses the risk retention to EU Institutional Investors; and (c) the originator, sponsor or securitization special purpose entity

("SSPE") has, where applicable, made available the information required by Article 7 of the EU Securitization Regulation in accordance with the frequency and modalities provided for in Article 7 of the EU Securitization Regulation and requires that the EU Institutional Investor carries out initial and ongoing due-diligence and monitoring procedures with respect to the securitization, its securitization position and the underlying exposures.

Certain technical standards which will supplement the EU Securitization Regulation have not been published in a finalized form or adopted and the requirements of the European Securitization Rules (including aspects of the EU Due Diligence Requirements and what is or will be required to demonstrate compliance to national regulators) remain unclear. Without limitation to the foregoing, no assurance can be given that the EU Due Diligence Requirements, or the interpretation or application thereof, will not change, and, if any such change is effected, whether such change would affect the regulatory position of current or future investors in the Notes. In particular, Fannie Mae has no obligation to change the quantum or nature of its holding of the Retained Interest due to any future changes in the European Securitization Rules or in the interpretation thereof.

Article 7 of the EU Securitization Regulation requires the originator, sponsor and SSPE of a securitization to make certain prescribed information relating to the securitization available to investors, competent authorities and, upon request, to potential investors. Such prescribed information includes quarterly asset level reporting and quarterly investor reporting using a specified form of reporting template. The EU Securitization Regulation does not explicitly specify the jurisdictional scope of application of Article 7. Although Fannie Mae and the Issuer are non-EU entities, Fannie Mae has elected to provide EU Institutional Investors with certain informational resources to support such investors' compliance with the European Securitization Rules.

Failure on the part of an EU Institutional Investor to comply with one or more of the EU Due Diligence Requirements may result in various sanctions or penalties including, in the case of those investors subject to regulatory capital requirements, the imposition of a punitive capital charge on the Notes acquired by the relevant investor.

The imposition of the EU Due Diligence Requirements on investors may have an adverse impact on the value and liquidity of the Notes themselves.

See "*European Securitization Rules*" in this Offering Memorandum.

Investors should also independently assess and determine whether they are directly or indirectly subject to market risk capital rules jointly promulgated by the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System and the FDIC that became effective on January 1, 2013. Any prospective investor that is subject to these rules should independently assess and determine its ability to comply with the regulatory capital treatment and reporting requirements that may be required with respect to the purchase of a Note and what impact any such regulatory capital treatment and reporting requirements may have on the liquidity or market value of the Notes.

All of these events could have a material adverse impact on the Noteholders.

The Restrictions on Transfer on the Notes May Limit Investors' Ability to Sell the Notes

Subject to limited exceptions in connection with the initial sale of the Notes, the Notes may be sold only (i) in the United States to Qualified Institutional Buyers and (ii) in offshore transactions to persons who are not "U.S. Persons" within the meaning of Regulation S. Each prospective investor will be required to represent that it is an eligible transferee pursuant to the transfer restrictions in the Indenture. See "*Distribution Arrangements — Selling Restrictions*" in this Offering Memorandum for additional information regarding the applicable restrictions on transfer.

The Notes are also subject to restrictions to avoid certain fiduciary concerns and the potential application of the prohibited transaction rules under ERISA and Section 4975 of the Code, or, in the case of any governmental plan, church plan or foreign plan, a violation of Similar Law. The Notes (other than the Class 1B-1 Notes or RCR Notes for which Class 1B-1 Notes may be exchanged) may be acquired by a Plan or persons or entities acting on behalf of, using the assets of or deemed to hold the assets of, a Plan, only if certain conditions are satisfied. The Class 1B-1 Notes (and RCR Notes for which they may be exchanged) may not be acquired by a Plan or using the assets of a Plan. See "*Certain ERISA Considerations*" in this Offering Memorandum.

The Notes May Be Redeemed Early

The Notes may be redeemed in their entirety if the Issuer exercises its right of early redemption as described under "*Description of the Notes — Early Redemption Option*" or if a CAA Early Termination Date occurs as a result of a CAA Trigger Event, as described under "*The Agreements—Collateral Administration Agreement—Termination*." Any such redemption may result in the receipt of principal of the Notes prior to the date anticipated by investors and may reduce prospective investors' yield or cause prospective investors to incur losses on investments in such Notes.

The Projected Recovery Amount and the Actual Subsequent Recoveries for the Notes Are Likely to Differ and May Significantly Affect the Amounts Received by the Noteholders

The Projected Recovery Amount for the Notes will be calculated by Fannie Mae in its sole discretion on the Termination Date based on assumptions derived from subsequent recoveries on Reference Obligations that became Credit Event Reference Obligations during the 30-month period immediately preceding such Termination Date. However, it is possible that actual subsequent recoveries will differ from those assumed, and those differences may be significant. Holders of the affected Notes will not benefit from any increased subsequent recoveries that may otherwise become available. The actual subsequent recoveries, if any, will be affected by various factors in effect during the period subsequent to the Termination Date, including regulatory changes and general economic and housing market conditions, among other factors, which may decrease or increase the actual net recoveries on such mortgage loans.

The Early Redemption Feature May Cause the Notes to Fluctuate in Value Based on Prevailing Interest Rates

The early redemption feature of the Notes is likely to limit their market value. During periods when Fannie Mae, as holder of the Ownership Certificate, may cause the Indenture Trustee to redeem the Notes, the market value generally will not rise substantially above the price at which the Notes may be redeemed. This also may be true prior to any redemption period.

If Fannie Mae causes the Indenture Trustee to redeem the Notes or if the Notes are otherwise subject to an early redemption, an investor in the Notes may be unable to reinvest the redemption proceeds in a comparable security at an effective interest rate as high as the interest rate on the Notes being redeemed. The reinvestment may be at a significantly lower rate. Investors should consider reinvestment risk in light of other investments available at that time.

Exchanges of Notes May Result in Investors Holding Lower Rated Notes

Before making an exchange involving Exchangeable Notes and RCR Notes, investors should consider carefully the ratings consequences of the contemplated exchange. A rating may have relevance beyond the NRSRO's assessment of the credit quality of a security; the rating of a security can determine the treatment of such security for certain regulatory purposes. Investors should consult with their advisors before exchanging their Notes as described above.

A Reduction, Withdrawal or Qualification of the Ratings on the Rated Notes, or the Issuance of an Unsolicited Rating on the Rated Notes, May Adversely Affect the Market Value of Those Notes and/or Limit an Investor's Ability to Resell Those Notes

Fannie Mae has engaged two NRSROs and will pay them each a fee to assign ratings on the Rated Notes. Fannie Mae notes that a NRSRO may have a conflict of interest where, as is the industry standard and the case with the ratings of the Rated Notes, the sponsor or the issuer pays the fees charged by each engaged NRSRO for its ratings services. Fannie Mae has not engaged any other NRSRO to assign a rating on the Rated Notes and are not aware that any other NRSRO has assigned ratings on the Rated Notes. However, under effective SEC rules, information provided by or on behalf of Fannie Mae to either engaged NRSRO for the purpose of assigning or monitoring the ratings on the Rated Notes is required to be made available to all NRSROs in order to make it possible for non-engaged NRSROs to assign unsolicited ratings on the Rated Notes. An unsolicited rating could be assigned at any time, including prior to the Closing Date, and none of Fannie Mae, the Initial Purchasers or any affiliates of the Initial Purchasers will have any obligation to inform you of any unsolicited rating assigned after the date of this Offering Memorandum. NRSROs, including the engaged NRSROs, have different methodologies, criteria, models and requirements. If any non-engaged NRSRO assigns an unsolicited rating or issues commentary on the Rated Notes, there can be no assurance that such rating will not be lower than the ratings provided by the

engaged NRSROs or that such commentary will not imply a lower rating, which may adversely affect the market value of the Rated Notes, as applicable, and/or limit an investor's ability to resell such Notes. In addition, if Fannie Mae, as Administrator, fails to make available to the non-engaged NRSROs any information provided to any engaged NRSRO for the purpose of assigning or monitoring the ratings on the Rated Notes, an engaged NRSRO could withdraw its rating on the Rated Notes, which may adversely affect the market value of such Notes and/or limit an investor's ability to resell such Notes. Potential investors in the Rated Notes are urged to make their own evaluation of such Notes, including the credit enhancement on such Notes, and not to rely solely on the ratings on such Notes. In particular, a reduction in the credit rating of the U.S. government due to a governmental shutdown, a failure to raise the national debt limit or for any other reason, may adversely affect Fannie Mae's credit rating and may have an adverse impact on the ratings of the Rated Notes.

The Ratings on the Rated Notes May Not Reflect All Risks

The ratings on the Rated Notes may not reflect the potential impact of all risks related to the structure of, or the market for, such Notes, or the additional factors discussed herein and other factors that may affect the value of such Notes. A credit rating is not a recommendation to buy, sell or hold securities and may be revised or withdrawn by a NRSRO. Investors should be aware that legislative, regulatory or other events involving Fannie Mae could negatively impact the ratings of the Rated Notes.

The Class 1B-1 Notes Will Not Be Rated by any Engaged NRSRO on the Closing Date

Fannie Mae has not engaged any NRSRO to rate the Class 1B-1 Notes (or Class 1B-1Y or Class 1B-1X Notes) on the Closing Date and Fannie Mae has no obligation to do so in the future. The lack of a rating reduces the potential liquidity of these Notes and thus may affect the market value of such Notes. In addition, the lack of a rating will reduce the potential for, or increase the cost of, financing the purchase and/or holding of such Notes. Investors subject to capital requirements may be required to hold more capital against the Class 1B-1 Notes (or Class 1B-1Y or Class 1B-1X Notes) than would have been the case had such Class of Notes been rated. An unsolicited rating could be assigned to these Notes at any time, including prior to the Closing Date, and none of Fannie Mae, the Initial Purchasers or any affiliates of the Initial Purchasers will have any obligation to inform you of any such unsolicited rating. In addition, if in the future Fannie Mae were to issue notes similar to these Notes or other securities under an alternative risk sharing arrangement, Fannie Mae may seek to have such securities rated by one or more NRSROs. As a result, the marketability of these Notes, as applicable, may be impaired because they are not so rated.

The Ability to Exchange Exchangeable Notes and RCR Notes May Be Limited

An investor must own the specific Classes in the specific proportions to enter into an exchange involving Exchangeable Notes and RCR Notes. If you do not own the specific Classes, you may not be able to obtain them because:

- the owner of a Class that you need for an exchange may refuse or be unable to sell that Class to you at a reasonable price or at any price; and
- principal payments over time will decrease the amounts available for exchange.

Investors Have No Direct Right to Enforce Remedies

The Noteholders have only limited rights under the Indenture to direct the Indenture Trustee to take action on their behalf under the Indenture or in respect of certain amendments of other Transaction Documents, it being understood that Noteholders will not have any rights to enforce directly against Fannie Mae, and Noteholders will generally not have rights to cause an early redemption of the Notes absent an "Event of Default" under the Indenture.

In no event will the Noteholders have the right to direct Fannie Mae to investigate or review whether or not a defect or deficiency exists with respect to any Reference Obligation. In addition, Fannie Mae will have the sole discretion to determine whether to undertake such investigation or review, upon taking such investigation or review, whether Fannie Mae deems any findings to be material, and upon concluding that a finding is material whether to require the related loan seller or servicer to repurchase the Reference Obligation, to enter into a repurchase settlement in respect of the Reference Obligation, and if so, for how much, or whether to waive the loan seller's or servicer's requirement to repurchase the Reference Obligation.

Except as described under "*The Agreement – The Indenture – Rights upon Event of Default*," an "Event of Default" under the Indenture will not automatically trigger an acceleration of the Notes. In order for the Notes to be accelerated upon an "Event of Default" under the Indenture, Noteholders representing not less than 50% of the aggregate Class Principal Balance of the outstanding Classes of Notes (with the outstanding Class Principal Balances of the Exchangeable Notes to be determined without regard to any exchanges for RCR Notes), must vote to enforce remedies to make such Notes immediately due and payable in accordance with the terms and provisions of the Indenture. To the extent that such vote does not occur, you will have no remedies upon an Event of Default. Noteholders may not be successful in obtaining the required percentage of votes required because it may be difficult to locate other investors to facilitate achieving the required voting thresholds.

Holders of RCR Notes will be entitled to exercise all the voting or direction rights that are otherwise allocated to the related Exchangeable Notes; *provided, however*, that Holders of any outstanding RCR Notes (other than the Interest Only RCR Notes) will be entitled to exercise their pro rata shares of 99% of the voting or direction rights that are otherwise allocated to the related Exchangeable Notes, and Holders of any outstanding Interest Only RCR Notes will be entitled to exercise their pro rata shares of 1% of the voting or direction rights that are otherwise allocated to the related Exchangeable Notes; *provided, further*, that any Notes held by Fannie Mae will be disregarded for such purposes (unless at such time all outstanding Classes of Notes are held by Fannie Mae).

One or more purchasers of Notes may purchase substantial portions of one or more Classes of Notes. If any Noteholder or group of Noteholders holds more than 50% of the aggregate voting interests of the Notes and disagrees with any proposed action, suit or proceeding requiring consent of more than 50% of the aggregate voting interests of the Notes, that Noteholder or group of Noteholders may block the proposed action, suit or proceeding. In some circumstances, the holders of a specified percentage of the Notes will be entitled to direct, consent to or approve certain actions. In these cases, this direction, consent or approval will be sufficient to bind all holders of the Notes, regardless of whether you agree with such direction, consent or approval.

Any Notes held by Fannie Mae will be disregarded for the voting purposes described in this section (unless at such time all outstanding Classes of Notes are held by Fannie Mae).

For a more detailed discussion of Events of Default and Noteholder rights, see "*The Agreements – The Indenture – Events of Default*", "*The Agreements – The Indenture – Rights Upon Event of Default*" and "*The Agreements – The Indenture – Amendment*" in this Offering Memorandum.

Legality of Investment

Each prospective investor in the Notes is responsible for determining for itself whether it has the legal power, authority and right to purchase such Notes. None of Fannie Mae, the Indenture Trustee, the Delaware Trustee, any Initial Purchaser or any of Fannie Mae's or their respective affiliates expresses any view as to any prospective investor's legal power, authority or right to purchase the Notes. Prospective investors are urged to consult their own legal, tax and accounting advisors as to such matters. See "*Legal Investment*" in this Offering Memorandum for additional information.

Rights of Note Owners May Be Limited by Book-Entry System

The Notes will be issued as book-entry Notes (the "**Book-Entry Notes**") and will be held through the book-entry system of the DTC, and, as applicable, Euroclear and Clearstream. Transactions in the Book-Entry Notes generally can be effected only through DTC and Participants (including Euroclear and Clearstream or their respective nominees or depositaries). As a result:

- investors' ability to pledge the Notes to entities that do not participate in the DTC, Euroclear or Clearstream system, or to otherwise act with respect to the Notes, may be limited due to the lack of a physical certificate for such Notes;
- under a book-entry format, an investor may experience delays in the receipt of payments, because payments will be made by the Indenture Trustee to DTC, Euroclear or Clearstream and not directly to an investor;
- investors' access to information regarding the Notes may be limited because transmittal of notices and other communications by DTC to its participating organizations and directly or indirectly through

those participating organizations to investors will be governed by arrangements among them, subject to applicable law; and

- you may experience delays in your receipt of payments on book-entry Notes in the event of misapplication of payments by DTC, DTC participants or indirect DTC participants or bankruptcy or insolvency of those entities, and your recourse will be limited to your remedies against those entities.

For a more detailed discussion of the Book-Entry Notes, see "*Description of The Notes — Form, Registration and Transfer of the Notes*" in this Offering Memorandum.

Tax Audit Procedures

Under the applicable rules regarding tax audits, a partnership, including for this purpose a REMIC for a taxable year in which it has multiple owners of Residual Certificates, appoints one person to act as its sole representative in connection with IRS audits and related procedures. The representative's actions, including the representative's agreeing to adjustments to taxable income, will bind partners or Residual Certificateholders. Under these rules, a REMIC having multiple Residual Certificateholders in a taxable year, unless such REMIC elects otherwise, will be required to pay taxes arising from IRS audit adjustments rather than its Residual Certificateholders. The Administrator, as representative, will have the authority to utilize, and will be directed to utilize, any exceptions available under these provisions (including changes) and Treasury regulations so that the Residual Certificateholders, to the fullest extent possible, rather than the REMIC itself, will be liable for any taxes arising from audit adjustments to the REMIC's taxable income. These rules are complex and may be clarified and possibly revised. It is unclear how any such elections may affect the procedural rules available to challenge any audit adjustment that would otherwise be available in the absence of any such elections.

Risks Relating to REMIC Status

Pursuant to the Indenture, one or more proper and timely REMIC elections are required to be made in respect of certain assets of the Issuer. The Designated Q-REMIC Interests are the assets of at least one such REMIC. Under the Code, if during any taxable year, an entity intending to qualify as a REMIC fails to satisfy one or more of the REMIC requirements, then such entity will not be treated as a REMIC for that taxable year or any taxable year thereafter. If that occurred with respect to a REMIC created under the Indenture or an issuer of Designated Q-REMIC Interests, the Issuer potentially would become taxable as a corporation as described below and one or more of the REMIC regular interests issued by such REMIC likely would be treated as stock in such corporation rather than as one or more REMIC regular interests. The Code authorizes the IRS to grant relief from the consequences of REMIC disqualification if such REMIC disqualification occurs inadvertently and steps are taken to correct the conditions that caused disqualification within a reasonable time after the discovery of the disqualification. The relief may take the form of either allowing the entity to continue as a REMIC after it again qualifies as a REMIC or by ignoring the cessation of REMIC status entirely. Any relief may, however, be accompanied by sanctions, such as the imposition of a corporate tax on all or a portion of the income of the REMIC for the period during which it failed to meet the REMIC requirements. Treasury and the IRS are authorized to issue regulations under these relief provisions, but no regulations have been proposed. If the IRS were to successfully contend that the Issuer or an issuer of Designated Q-REMIC Interests should be treated as one or more corporations, the taxable income of such entity would become subject to U.S. federal income tax at corporate rates. Such a characterization could cause the amount of cash flow available to Noteholders to be substantially reduced and could also result in the holders of the reclassified Notes recognizing income and other tax items with respect to their Notes that differ significantly, in amount, timing and character, from that recognized were such Notes treated, in whole or in part, as beneficial interests in REMIC regular interests for U.S. federal income tax purposes, and such consequences could be materially adverse to such Noteholders.

Certain Risks Relating to Original Issue Discount

The Interest Only RCR Notes will be, and other Notes may be, issued with original issue discount ("**OID**") for U.S. federal income tax purposes. Holders of the Notes will be required to include in income all interest and OID in accordance with the accrual method of accounting, regardless of the holder's usual method of accounting. For certain holders using the accrual method of accounting, OID may be includible at the time it would be included for financial accounting purposes if earlier than when the holder would otherwise take the OID into income. Noteholders may rely on proposed Treasury regulations, released September 9, 2019, that exclude OID on the Notes from this rule. Prospective investors are urged to consult their tax advisors regarding the potential applicability of

this provision to their particular situations. See "*Certain U.S. Federal Income Tax Consequences*" in this Offering Memorandum.

Changes in Tax Law; No Gross Up in Respect of the Notes

It is not expected that any U.S. withholding tax would be imposed on the payment of interest or principal to a Noteholder that provides the appropriate forms and documentation to the withholding agent (including the information required under the Foreign Account Tax Compliance Act ("**FATCA**")) including with respect to any portion of a Note treated as a notional principal contract. However, there can be no assurance that, as a result of any change in any applicable law, treaty, rule or regulation, or interpretation of any applicable law, treaty, rule or regulation, the payments on the Notes will not in the future become subject to U.S. withholding taxes. To the extent that any U.S. withholding tax is imposed, neither the Issuer nor any other party will have an obligation to make any "gross-up" payments to Noteholders in respect of such taxes.

ERISA Considerations

Each person purchasing the Notes (or a beneficial interest therein) will make or will be deemed to make certain representations and warranties regarding the prohibited transaction rules of ERISA, Section 4975 of the Code and the applicable provisions of Similar Law. Fiduciaries and other persons contemplating investing "plan assets" of Plans in Notes should consider the fiduciary investment standards and prohibited transaction rules of ERISA, Section 4975 of the Code, Similar Law, and the applicable provisions of any other applicable laws before authorizing an investment of the plan assets of any Plan in such Notes. See "*Certain ERISA Considerations*" in this Offering Memorandum.

The Interests of Fannie Mae, the Initial Purchasers and Others May Conflict With and Be Adverse to the Interests of the Noteholders

Fannie Mae's Actions with Respect to REO Dispositions, Mortgage Note Sales, Third-Party Sales, Short Sales and Disposition Timelines May Increase the Risk of Loss on the Notes

Fannie Mae has considerable discretion, influence and authority with respect to the ultimate disposition of Reference Obligations, as further described in "*Loan Acquisition Practices and Servicing Standards — Servicing Standards — Delinquent Loan Management.*" In addition, pursuant to the Collateral Administration Agreement, Fannie Mae will be entitled to receive Return Amounts from the Issuer. In the exercise of its discretion with respect to defaulted Reference Obligations, Fannie Mae will have the ability to accept or reject prices and bids on REO properties, third-party sales, short sales and mortgage note sales. In the event Fannie Mae rejects an offer, such rejection could result in additional delay affecting the ultimate disposition of a mortgaged property. Any periods between an offer that is rejected and the ultimate disposition of the mortgaged property may result in additional expenses (including but not limited to delinquent accrued interest, legal fees, real estate taxes and maintenance and preservation expenses) that ultimately increase the actual loss realized on a mortgaged property. Subsequent offers that are ultimately accepted by Fannie Mae could be lower than previous offers presented to Fannie Mae. Any such additional expenses or reduced offers will reduce the Liquidation Proceeds used to calculate the Credit Event Net Loss and result in greater losses being allocated to the Notes.

Interests of Fannie Mae May Not Be Aligned With the Interests of the Noteholders

In conducting its business, including the acquisition, financing and securitization of mortgage loans, Fannie Mae maintains ongoing relationships with its loan sellers. As a result, while Fannie Mae may have contractual rights to enforce obligations that Fannie Mae's loan sellers may have, Fannie Mae may elect not to do so or Fannie Mae may elect to do so in a way that serves its own interests (including, but not limited to, working with its regulators toward housing policy objectives, maintaining strong ongoing relationships with its loan sellers and maximizing the interests of taxpayers and its shareholders) without taking into account the interests of the Noteholders. In certain instances, Fannie Mae may, or its regulators may, have outstanding disputes or litigation with its loan sellers or servicers. Fannie Mae cannot assure you that the existence of any prior, current or future disputes or litigation will not impact the manner in which Fannie Mae acts in the future.

Fannie Mae's interests, as owner or guarantor of the Reference Obligations or MBS backed by the Reference Obligations, as the party directing its quality control process for reviewing mortgage loans or as master servicer, may be adverse to the interests of the Noteholders. The effect of the Notes being linked to the Reference Obligations and the corresponding Classes of Reference Tranches established pursuant to the hypothetical structure

is that Fannie Mae is passing through to Noteholders the economic exposure that it bears with respect to the Reference Obligations to the extent that the Class Principal Balances of the Notes are subject to being written down as described in this Offering Memorandum.

Fannie Mae, in any of its capacities with respect to the Notes or the Reference Obligations, are not obligated to consider the interests of the Noteholders in taking or refraining from taking any action. Such action may include revising provisions of the Servicing Guide to provide for alternative modification programs or to provide less or more stringent servicing requirements. See "*Risks Relating to the Notes Being Linked to the Reference Obligations — Servicers May Not Follow the Requirements of Fannie Mae's Servicing Guide and Servicing Standards May Change Periodically*" above. In implementing new provisions in the Servicing Guide, Fannie Mae does not differentiate between Reference Obligations and mortgage loans that are not in the Reference Pool. In addition, in connection with its role as Trustor and Administrator of the Issuer and holder of the Ownership Certificate, Fannie Mae will be acting solely for its own benefit and not as agent or fiduciary on behalf of investors in the Notes. Also, there is no independent third party engaged with respect to the Notes to monitor and supervise its activities as Trustor of the Issuer and holder of the Ownership Certificate.

Federal Housing Policy Objectives Adopted by Fannie Mae May Not Be Aligned With the Interests of the Noteholders

The housing policies reflected in FHFA's most recent conservatorship scorecard incentivize Fannie Mae to pursue business objectives that may conflict with the interests of the Noteholders. Under the scorecard, Fannie Mae is to reduce the number of severely aged delinquent loans (referred to in this Offering Memorandum as "**non-performing loans**") in its portfolio. Sales of non-performing loans are subject to policy-related considerations established by FHFA, including requirements applicable to entities bidding on those loans. These requirements may reduce the market for, and ultimate recoveries on, the affected non-performing loans. See "*Loan Acquisition Practices and Servicing Standards — Servicing Standards — Delinquent Loan Management—Non-Performing Loan Sales*" for a discussion of FHFA announcements regarding enhanced requirements for the sale of non-performing loans by Fannie Mae and Freddie Mac. In certain geographical areas, Fannie Mae's performance under the conservatorship scorecard is further influenced by the "**Neighborhood Stabilization Initiative**," a program developed by FHFA, Fannie Mae and Freddie Mac to assist borrowers who are delinquent on their mortgage payments, support neighborhood recovery and reduce REO inventory. The Neighborhood Stabilization Initiative is currently in effect in 18 metropolitan areas throughout the U.S. and is subject to further expansion. As a result of these policies and other policies that may be announced in the future, an increase in Modification Events may occur with respect to the Reference Obligations, which in turn may result in interest payment reductions and possible principal losses being allocated to the Notes. In addition, the effect of such policies on any dispositions of non-performing loans that are Reference Obligations may lead to reduced Net Liquidation Proceeds and greater losses being allocated to the Notes.

In August 2017, FHFA announced the final details of a new high LTV refinance program affecting Fannie Mae and Freddie Mac and aimed at borrowers who are current in their monthly mortgage payments, whose LTV ratios exceed specified levels, and who otherwise meet additional specified criteria. The program, referred to as the High LTV Refinance Option, is available to qualified borrowers on loans originated on or after October 1, 2017 and subsequently acquired by Fannie Mae. A portion of the Reference Obligations in the Reference Pool are potentially eligible to be refinanced under the High LTV Refinance Option. See "*Loan Acquisition Practices and Servicing Standards — High LTV Refinance Option*" for a further description of this program. Any Reference Obligation that is refinanced under the High LTV Refinance Option will be replaced in the Reference Pool by the resulting refinance loan. This potentially could result in a greater proportion of high loan-to-value loans in the Reference Pool than would otherwise be the case, which in turn may increase the rate at which Reference Obligations experience Modification Events or become Credit Event Reference Obligations and could result in losses being allocated to the Notes. See "*Risks Relating to the Notes Being Linked to the Reference Obligations — The Notes Bear the Risk of Credit Events and Modification Events on the Reference Obligations*" above. Additionally, under the High LTV Refinance Option, it is possible that lenders may apply their own funds to reduce principal as inducements to borrowers to refinance. Any such principal reduction would be treated as Unscheduled Principal for the related Reporting Period. Although such reductions are expected to be limited, Fannie Mae cannot predict the effect of any such reductions on the amount of Unscheduled Principal allocated to the Reference Tranches and, accordingly, on the weighted average lives of the Notes.

Potential Conflicts of Interest of the Initial Purchasers and their Affiliates

The activities of the Initial Purchasers and their respective affiliates may result in certain conflicts of interest. The Initial Purchasers and their affiliates may retain, or own in the future, Classes of Notes, and any voting rights of those Classes could be exercised by them in a manner that could adversely impact the Notes. The Initial Purchasers and their affiliates may invest or take long or short positions in securities or instruments, including the Notes, that may be different from your position as an investor in the Notes. If that were to occur, such Initial Purchaser's or its affiliate's interests may not be aligned with your interests in Notes you acquire.

The Initial Purchasers and their respective affiliates include broker-dealers whose business includes executing securities and derivative transactions on their own behalf as principals and on behalf of clients. Accordingly, the Initial Purchasers and their respective affiliates and clients acting through them from time to time buy, sell or hold securities or other instruments, which may include one or more Classes of the Notes, and do so without consideration of the fact that the Initial Purchasers acted as Initial Purchasers for the Notes. Such transactions may result in the Initial Purchasers and their respective affiliates and/or their clients having long or short positions in such instruments. Any such short positions will increase in value if the related securities or other instruments decrease in value. Further, the Initial Purchasers and their respective affiliates may (on their own behalf as principals or for their clients) enter into credit derivative or other derivative transactions with other parties pursuant to which they sell or buy credit protection with respect to one or more of the Notes. The positions of the Initial Purchasers and their respective affiliates or their clients in such derivative transactions may increase in value if the Notes default or decrease in value. In conducting such activities, none of the Initial Purchasers or their respective affiliates will have any obligation to take into account the interests of the Holders of the Notes or any possible effect that such activities could have on them. The Initial Purchasers and their respective affiliates and clients acting through them may execute such transactions, modify or terminate such derivative positions and otherwise act with respect to such transactions, and may exercise or enforce, or refrain from exercising or enforcing, any or all of their rights and powers in connection therewith, without regard to whether any such action might have an adverse effect on the Notes or the Holders of the Notes. Additionally, none of the Initial Purchasers and their respective affiliates will have any obligation to disclose any of these securities or derivatives transactions to you in your capacity as a Holder of a Note.

To the extent the Initial Purchasers or one of their respective affiliates makes a market in the Notes (which they are under no obligation to do), they would expect to receive income from the spreads between their bid and offer prices for the Notes. In connection with any such activity, they will have no obligation to take, refrain from taking or cease taking any action with respect to these transactions and activities based on the potential effect on an investor in the Notes. The prices at which the Initial Purchasers or one of their respective affiliates may be willing to purchase the Notes, if they make a market for the Notes, will depend on market conditions and other relevant factors and may be significantly lower than the issue prices for the Notes and significantly lower than the prices at which they may be willing to sell the Notes.

Furthermore, the Initial Purchasers expect that a completed offering will enhance their ability to assist clients and counterparties in transactions related to the Notes and in similar transactions (including assisting clients in additional purchases and sales of the Notes and hedging transactions). The Initial Purchasers expect to derive fees and other revenues from these transactions. In addition, participating in a successful offering and providing related services to clients may enhance the Initial Purchasers' relationships with various parties, facilitate additional business development and enable them to obtain additional business and to generate additional revenue.

The Initial Purchasers and their respective affiliates will have no obligation to monitor the performance of the Notes or Fannie Mae's actions, the loan sellers or servicers, the Indenture Trustee, the Delaware Trustee or any other transaction party and will have no authority to advise any such party or to direct their actions.

Furthermore, the Initial Purchaser listed below is affiliated with the specified loan seller and servicer of certain Reference Obligations included in the Reference Pool. No other Initial Purchaser is affiliated with a loan seller or servicer of 1% or more of the Reference Obligations (by aggregate principal balance as of the Cut-off Date).

| <u>Initial Purchaser</u> | <u>Affiliated Seller Servicer</u> | <u>% of Reference Obligations (by Aggregate Cut-off Date Balance)</u> |
|---------------------------------|--|--|
| Wells Fargo Securities | Wells Fargo Bank | 15.32% |

Potential Conflicts of Interest of the Indenture Trustee, the Exchange Administrator, Custodian and Investment Agent

Wells Fargo Bank, in addition to acting as Indenture Trustee, Exchange Administrator, Custodian and Investment Agent, is the originator, loan seller and/or servicer with respect to approximately 15.32% of the Reference Obligations (by aggregate principal balance as of the Cut-off Date) and, in such capacities, its interests with respect to the Reference Obligations may be adverse to the interests of the Noteholders. In its roles as originator, loan seller and/or servicer, Wells Fargo Bank is not obligated to consider the interests of the Noteholders in taking or refraining from taking any action. Wells Fargo Bank also expects to continue to act as an originator, loan seller and servicer for mortgage loans that are not included in the Reference Pool.

There May Be Conflicts of Interest Between the Classes of Notes

There may be conflicts of interest between the Classes of Notes due to differing payment priorities and terms. Investors in the Notes should consider that certain decisions may not be in the best interests of each Class of Notes and that any conflict of interest among different Noteholders may not be resolved in favor of investors in the Notes. For example, Noteholders may exercise their voting rights so as to maximize their own interests, resulting in certain actions and decisions that may not be in the best interests of different Noteholders.

Combination or "Layering" of Multiple Risk Factors May Significantly Increase the Risk of Loss on Your Notes

Although the various risks discussed in this Offering Memorandum are generally described separately, prospective investors in the Notes should consider the potential effects on the Notes of the interplay of multiple risk factors. Where more than one significant risk factor is present, the risk of loss on your Notes may be significantly increased. In considering the potential effects of layered risks, you should carefully review the descriptions of the Reference Obligations and the Notes. See "*The Reference Obligations*" and "*Description of the Notes*" in this Offering Memorandum.

THE ISSUER

The Issuer is a Delaware statutory trust, the beneficial ownership of which will be held by Fannie Mae, as Trustor. The Issuer was formed on January 3, 2020 pursuant to a trust agreement dated such date, between the Trustor and the Delaware Trustee as amended and restated by the Amended and Restated Trust Agreement dated as of the Closing Date (together, the "**Trust Agreement**"), by and among Fannie Mae, as Trustor and Administrator, U.S. Bank Trust National Association, as Delaware Trustee and Wells Fargo Bank, N.A., as certificate paying agent and certificate registrar. The Issuer does not have a board of directors, officers or employees.

The purpose of the Issuer is to engage in the following activities:

- (a) to issue the Notes pursuant to the Indenture and to sell the Notes to the Initial Purchasers;
- (b) to issue the Certificates pursuant to the Trust Agreement and deliver each of them to the Trustor;
- (c) to enter into, execute, deliver and perform the Transaction Documents to which it is a party and the other agreements, instruments, documents, certificates and writings referred to therein or contemplated thereby or delivered in connection therewith to which the Issuer is or is to be a party, and to consummate the transactions contemplated thereby;
- (d) to acquire the assets of the Issuer, to assign, grant, transfer, pledge, mortgage and convey the assets of the Issuer (subject to the exclusions therefrom described in the Indenture) to the Indenture Trustee pursuant to the Indenture and to hold, manage and distribute to the Certificateholders pursuant to the terms of the Trust Agreement any portion of the Collateral released from the lien of, and remitted to the Issuer pursuant to, the Indenture;
- (e) to engage in those activities, including entering into, executing, delivering and performing its obligations under agreements, certificates and other writings that are necessary, suitable or convenient to accomplish the foregoing or are incidental thereto or connected therewith, including entering into

agreements with financial advisors and other professionals with respect to matters involving the Issuer; and

- (f) subject to compliance with the Transaction Documents, to engage in such other activities as may be required in connection with conservation of the assets of the Issuer and the making of distributions to the Certificateholders.

The Issuer will not engage in any activity other than in connection with those specified above, other than as required or authorized by the terms of the Trust Agreement or the other Transaction Documents to which it is a party. No person acting on behalf of the Issuer will have the authority to consummate any act that would result in (i) termination of the REMIC status of any REMIC created under the Indenture or (ii) imposition of U.S. federal income tax on any REMIC created under the Indenture (any such event, an "**Adverse REMIC Event**"). The Issuer may not consolidate with, merge into, or transfer or convey all or substantially all of its assets to any other corporation, partnership, trust or other person or entity, except in accordance with the Trust Agreement. The Trust Agreement contains provisions for the indemnification of the Delaware Trustee by Fannie Mae, as Administrator.

The Indenture, the Trust Agreement, the Note Purchase Agreement, the Collateral Administration Agreement, the Capital Contribution Agreement, the Investment Agency Agreement, the Securities Account Control Agreement, the Administration Agreement, the Notes and the Certificates, together with each other document or instrument executed in connection therewith, are referred to in this Offering Memorandum as the "**Transaction Documents.**")

Fannie Mae, as holder of the certificate evidencing beneficial ownership of the Issuer (the "**Ownership Certificate**"), will generally be empowered to direct the Delaware Trustee in the management of the Issuer, but only to the extent consistent with the limited purpose of the Issuer and in accordance with the terms of the Trust Agreement and the other Transaction Documents to which the Issuer is a party. In addition to the Ownership Certificate, the Issuer will issue a "Class R Certificate" and "Class RL Certificate" (collectively, the "**Certificates**") and the holders thereof are referred to as the "**Certificateholders.**" The Class R Certificate and Class RL Certificate are together referred to as the "**Residual Certificates**" and holders thereof are referred to as the "**Residual Certificateholders.**" The Residual Certificates will constitute noneconomic residual interests under Treasury regulations. Fannie Mae will initially be the holder of each Certificate. The Issuer will also issue an uncertificated interest, referred to as the "**X-IO Interest,**" which will be held by Fannie Mae (the "**X-IO Interestholder**"). The X-IO Interest will have no principal balance and will represent the entitlement on any Payment Date to the excess, if any, of (i) the amount payable in respect of the IO Q-REMIC Interest for the related Remittance Date over (ii) the Transfer Amount for the related Remittance Date.

The assets of the Issuer will be limited to those described below, and the Issuer will grant to the Indenture Trustee on the Closing Date, for the benefit of Fannie Mae and the Noteholders (together, the "**Secured Parties**"), as their respective interests may appear, all of the Issuer's right, title and interest in, whether now owned or existing, or hereafter acquired or arising, (a) the Note Distribution Account, (b) the Cash Collateral Account, (c) all Eligible Investments (including, without limitation, any interest of the Issuer in the Cash Collateral Account and any amounts from time to time on deposit therein) purchased with funds on deposit in the Cash Collateral Account and all income from the investment of funds therein, (d) the Collateral Administration Agreement and the Capital Contribution Agreement and all amounts payable to the Issuer thereunder or with respect thereto, (e) the Securities Account Control Agreement and the Investment Agency Agreement, (f) the Designated Q REMIC Interests, (g) all accounts, general intangibles, chattel paper, instruments, documents, goods, money, investment property, deposit accounts, letters of credit and letter-of-credit rights, consisting of, arising from, or relating to, any of the foregoing, and (h) all proceeds, accessions, profits, income, benefits, substitutions and replacements, whether voluntary or involuntary, of and to any of the property of the Issuer described in the preceding clauses (collectively, the "**Collateral**"). Such grant will be made to secure (a) the payment of all amounts payable to Fannie Mae by the Issuer under the Collateral Administration Agreement in respect of Return Amounts and (b) the payment of all amounts payable by the Issuer in respect of the Notes under the Indenture, provided that such grant for the benefit of the Holders of the Notes is subordinate to the grant for the benefit of Fannie Mae.

The Issuer will dissolve and be wound up under the Trust Agreement upon the payment of the Issuer's debts and obligations, including (i) payment of all amounts due on the Notes and the Residual Certificates and all other amounts payable by the Issuer under the Indenture, (ii) the payment of all amounts payable by the Issuer under the Collateral Administration Agreement and (iii) the payment or discharge of all other amounts owed by the Issuer under the Transaction Documents. Other than pursuant to the foregoing, neither the Trustor nor any Certificateholder will be entitled to revoke or terminate the Issuer.

THE TRUSTOR AND ADMINISTRATOR

Fannie Mae will act as Trustor and Administrator of the Issuer. See "*Fannie Mae*" and "*LOAN ACQUISITION PRACTICES AND SERVICING STANDARDS*" in this Offering Memorandum for more information regarding the Trustor and Administrator and "*THE AGREEMENTS — The Indenture*" and "*— The Administration Agreement*" in this Offering Memorandum for more information regarding the duties of the Administrator.

THE DELAWARE TRUSTEE

U.S. Bank Trust National Association ("**USBTNA**") will act as Delaware trustee (the "**Delaware Trustee**") under the Trust Agreement. USBTNA is a national banking association and a wholly-owned subsidiary of U.S. Bank National Association ("**U.S. Bank**"), the fifth largest commercial bank in the United States. U.S. Bancorp, with total assets exceeding \$488 billion as of September 30, 2019, is the parent company of U.S. Bank. As of September 30, 2019, U.S. Bancorp served approximately 18 million customers and operated over 2,900 branch offices in 25 states. A network of specialized U.S. Bancorp offices across the nation provides a comprehensive line of banking, brokerage, insurance, investment, mortgage, trust and payment services products to consumers, businesses, and institutions.

USBTNA has provided owner trustee services since the year 2000. As of September 30, 2019, USBTNA was acting as Delaware trustee with respect to over 700 issuances of securities. This portfolio includes mortgage-backed and asset-backed securities. USBTNA has acted as owner trustee of residential mortgage-backed securities since 2000. As of September 30, 2019, USBTNA was acting as owner trustee on 103 issuances of residential mortgage-backed securities.

THE INDENTURE TRUSTEE, EXCHANGE ADMINISTRATOR, CUSTODIAN AND INVESTMENT AGENT

Wells Fargo Bank, N.A. ("**Wells Fargo Bank**") will act as indenture trustee (in such capacity, the "**Indenture Trustee**"), as exchange administrator (in such capacity, "**Exchange Administrator**") and as custodian (in such capacity, the "**Custodian**"), in each case under the Indenture, and as Investment Agent (in such capacity, the "**Investment Agent**") under the Investment Agency Agreement.

Wells Fargo Bank is a national banking association and a wholly-owned subsidiary of Wells Fargo & Company. A diversified financial services company, Wells Fargo & Company is a U.S. bank holding company with approximately \$1.9 trillion in assets and approximately 263,000 employees as of June 30, 2019 which provides banking, insurance, trust, mortgage and consumer finance services throughout the United States and internationally. Wells Fargo Bank provides retail and commercial banking services and corporate trust, custody, securities lending, securities transfer, cash management, investment management and other financial and fiduciary services. The Issuer may maintain banking and other commercial relationships with Wells Fargo Bank and its affiliates. Wells Fargo Bank maintains principal corporate trust offices located at 9062 Old Annapolis Road, Columbia, Maryland 21045-1951 (among other locations), and its office for certificate transfer services is located at Corporate Trust Operations, MAC N9300-070, 600 South Fourth Street, 7th Floor, Minneapolis, Minnesota 55479.

For three RMBS transactions, Wells Fargo Bank disclosed transaction-level noncompliance on its 2018 Annual Statement of Compliance furnished pursuant to Item 1123 of Regulation AB for such transactions related to its RMBS bond administration function. Such noncompliance related to either the accuracy of payment calculations or the timing of payments. In each case, the noncompliance has been remedied.

Wells Fargo Bank serves or may have served within the past two years as loan file custodian for various mortgage loans owned by Fannie Mae or an affiliate of Fannie Mae and anticipates that one or more of those mortgage loans may be included in the Reference Pool. The terms of any custodial agreement under which those services are provided by Wells Fargo Bank are customary for the mortgage-backed securitization industry and provide for the delivery, receipt, review and safekeeping of mortgage loan files.

Wells Fargo Bank serves or may have served within the past two years as warehouse master servicer for various mortgage loans owned by the Issuer or an affiliate of the Issuer and, to the extent this is the case, one or more of those mortgage loans may be included in the Reference Pool. The terms of the warehouse master servicing agreement under which any such services are provided by Wells Fargo Bank are customary for the mortgage-backed securitization industry.

Wells Fargo Bank has provided corporate trust services since 1934. Wells Fargo Bank acts as a trustee for a variety of transactions and asset types, including corporate and municipal bonds, mortgage-backed and asset-backed securities and collateralized debt obligations. As of June 30, 2019, Wells Fargo Bank was acting as trustee on approximately 3,017 series of residential mortgage-backed securities with an aggregate principal balance of approximately \$309,927,000,000.

Under the terms of the Indenture, the Indenture Trustee is responsible for securities administration, which includes pool performance calculations, payment calculations and the preparation of monthly payment reports, and the Exchange Administrator is responsible for certain administrative functions with respect to exchanging Exchangeable Notes for RCR Notes and vice versa. Wells Fargo Bank has been engaged in the business of securities administration since June 30, 1995. As of June 30, 2019, Wells Fargo Bank was acting as securities administrator with respect to more than \$548,465,000,000 of outstanding residential mortgage transactions.

Since June 18, 2014, a group of institutional investors have filed civil complaints in the Supreme Court of the State of New York, New York County, and later the U.S. District Court for the Southern District of New York (the "**District Court**") against Wells Fargo Bank in its capacity as trustee for certain residential mortgage backed securities ("**RMBS**") trusts. The complaints against Wells Fargo Bank alleged that the trustee caused losses to investors and asserted causes of action based upon, among other things, the trustee's alleged failure to: (i) notify and enforce repurchase obligations of mortgage loan sellers for purported breaches of representations and warranties, (ii) notify investors of alleged events of default and (iii) abide by appropriate standards of care following alleged events of default. Relief sought included money damages in an unspecified amount, reimbursement of expenses, and equitable relief. Wells Fargo Bank has reached an agreement, in which it denies any wrongdoing, to resolve these claims on a classwide basis for the 271 RMBS trusts currently at issue. On May 6, 2019, the court entered an order approving the settlement agreement. Separate lawsuits against Wells Fargo Bank making similar allegations filed by certain other institutional investors concerning 57 RMBS trusts in New York federal and state court are not covered by the agreement. With respect to the foregoing litigations, Wells Fargo Bank believes plaintiffs' claims are without merit and intends to contest the claims vigorously, but there can be no assurances as to the outcome of the litigations or the possible impact of the litigations on Wells Fargo Bank or the RMBS trusts.

DESCRIPTION OF THE NOTES

General

On the Closing Date, the Issuer expects to issue the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C, Class 1B-1 Notes and RCR Notes (including the 1M-2 Notes), and the Issuer expects to offer the Class 1M-1, Class 1M-2 and Class 1B-1 Notes (the "**Offered Notes**"). The Exchangeable Notes and RCR Notes will be exchangeable for the related RCR Notes and Exchangeable Notes, respectively and in the Combinations described on Schedule I hereto. All the Notes will be issued pursuant to the Indenture. Under the Indenture, Wells Fargo Bank will act as Indenture Trustee, paying agent, note registrar, transfer agent, authenticating agent, exchange administrator and custodian. See "*The Agreements — The Indenture*" in this Offering Memorandum.

The Notes are non-recourse debt obligations of the Issuer. The Notes are not obligations of, and are not guaranteed by, Fannie Mae, the United States or any agency or instrumentality thereof.

The Notes are structured to be subject to the performance of the Reference Obligations in the Reference Pool. This transaction is structured to afford investors pass-through economic exposure to the Reference Obligations and provide Fannie Mae reimbursement for specified losses it incurs with respect to Reference Obligations that experience losses relating to Credit Events and Modification Events. The Notes will be subject to write-down of their Class Principal Balances based on the occurrence of Credit Events and Modification Events with respect to the Reference Obligations and the actual losses experienced with respect thereto. In addition, the Interest Payment Amounts of the Notes will be subject to reduction to the extent that the Reference Obligations experience losses as a result of Modification Events. See "*Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Tranche Write-down Amounts*" and "*Allocation of Modification Loss Amount*". Pursuant to the Collateral Administration Agreement, the Issuer is obligated to pay Return Amounts upon the occurrence of Credit Events and Modification Events that result in such write-downs. This payment obligation will reduce amounts available for principal payments to Noteholders on a related Payment Date. Also pursuant to the Collateral Administration Agreement, Fannie Mae is obligated to pay Transfer Amounts to the Issuer (it being

understood that the Trust Estate Yield for a Payment Date will be deemed to satisfy, up to the amount of such Trust Estate Yield, Fannie Mae's Transfer Amount payment obligation for the related Remittance Date) for payment by the Indenture Trustee in respect of interest on the Notes on the related Payment Date.

The principal payment characteristics of the Notes have been designed so that the Notes amortize based on the collections of principal payments on the Reference Obligations. The Notes generally will not be entitled to principal payments based on Unscheduled Principal collections received on the Reference Obligations unless the Minimum Credit Enhancement Test and the Delinquency Test are satisfied for the related Payment Date. Unlike securities in a senior/subordinate private label residential mortgage-backed securitization, the principal payments required to be paid by the Issuer on the Notes will be based in part on Scheduled Principal that is due and collected on the Reference Obligations, rather than on scheduled payments due on such Reference Obligations, as described under "*Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Senior Reduction Amount and Subordinate Reduction Amount*" in this Offering Memorandum. In other words, to the extent that there is a delinquent borrower who misses a payment (or makes only a partial scheduled payment) on a Reference Obligation, the Issuer will not make principal payments on the Notes based on the amount that was due on such Reference Obligation; instead, the Issuer will only make principal payments on the Notes based on Scheduled Principal and Unscheduled Principal actually collected on such Reference Obligation and any Excess Credit Event Amounts. Investors should make their own determination as to the effect of these features on the Notes.

For the avoidance of doubt, the Notes are not secured or backed by the Reference Obligations and under no circumstances will the actual cash flow from the Reference Obligations be paid to or otherwise be made available to the Holders of the Notes. The Issuer will make monthly payments of accrued interest to the Holders of the Notes (subject to reduction as a result of the allocation of Modification Loss Amounts). The amount of principal payments required to be paid by the Issuer on the Notes entitled to principal each month will be based on the amount of principal collected in respect of the Reference Obligations as further described in this Offering Memorandum. If a Class of RCR Notes is outstanding, all amounts payable by Fannie Mae on Exchangeable Notes that were exchanged for such RCR Notes will be allocated to and payable on such RCR Notes.

Form, Registration and Transfer of the Notes

The Notes will be represented by Book-Entry Notes and will be available in fully-registered form (such form, the "**Definitive Notes**") only in limited circumstances described below.

The table below sets forth the original Note form, the minimum denomination and the incremental denomination of the Notes. The Notes are not intended to be and should not be directly or indirectly held or beneficially owned in amounts lower than such minimum denominations. A single Note of each Class may be issued in an amount different (but not less) than the minimum denomination described below.

Form and Denominations of Notes

| <u>Class</u> | <u>Original Form</u> | <u>Minimum Denomination</u> | <u>Incremental Denomination</u> |
|--|-----------------------------|------------------------------------|--|
| Class 1M-1 Notes | Book-Entry | \$10,000 | \$1 |
| Class 1M-2 Notes ⁽¹⁾ | Book-Entry | \$10,000 | \$1 |
| Class 1M-2A Notes ⁽¹⁾ | Book-Entry | \$10,000 | \$1 |
| Class 1M-2B Notes ⁽¹⁾ | Book-Entry | \$10,000 | \$1 |
| Class 1M-2C Notes ⁽¹⁾ | Book-Entry | \$10,000 | \$1 |
| Class 1B-1 Notes ⁽¹⁾ | Book-Entry | \$10,000 | \$1 |

⁽¹⁾ The Classes of Notes set forth on Schedule I hereto have the same forms, minimum denominations and incremental denominations.

The Indenture Trustee will initially serve as paying agent, note registrar and transfer agent for purposes of making calculations and payments with respect to the Notes and providing for registration, transfers and exchanges of the Notes (except for exchanges of Exchangeable Notes for RCR Notes and vice versa). In addition, the Indenture Trustee will perform certain reporting and other administrative functions. The Exchange Administrator will also perform certain reporting and administrative functions with respect to the RCR Notes, including informing the Indenture Trustee of exchanges of Exchangeable Notes for RCR Notes, and vice versa, so that the Indenture

Trustee can make payments on RCR Notes that have been issued in exchange for Exchangeable Notes and vice versa.

Book-Entry Notes. Persons acquiring beneficial ownership interests in the Book-Entry Notes ("**Note Owners**") will hold such Notes through The Depository Trust Company ("**DTC**") in the United States and Clearstream or Euroclear outside the United States, if they are participants of such systems (the "**Participants**"), or indirectly through organizations which are participants in such systems (the "**Indirect Participants**"). Each Class of Book-Entry Notes initially will be represented by one or more physical certificates registered in the name of Cede & Co., the nominee of DTC. Investors may hold such beneficial interest in the Book-Entry Notes in minimum denominations of \$10,000 and incremental denominations of \$1 in excess thereof. Except as described below, no Note Owner will be entitled to receive a Definitive Note. Unless and until Definitive Notes are issued, it is anticipated that the only Noteholder of the Book-Entry Notes will be Cede & Co., as nominee of DTC. Note Owners will not be Noteholders as that term is used in the Indenture. Note Owners are only permitted to exercise their rights indirectly through Participants, Indirect Participants, Clearstream, Euroclear and DTC.

The Indenture Trustee or another designated institution will act as the custodian for Book-Entry Notes on DTC and as the "**Common Depository**" for Book-Entry Notes which clear and settle through Euroclear and Clearstream. Upon notification by the Exchange Administrator, the Indenture Trustee will indicate to DTC any exchanges of Exchangeable Notes for RCR Notes and vice versa.

A Note Owner's ownership of a Book-Entry Note will be recorded on the records of the brokerage firm, bank, thrift institution or other financial intermediary (each, a "**Financial Intermediary**") that maintains the Note Owner's account for such purpose. In turn, the Financial Intermediary's ownership of such Book-Entry Note will be recorded on the records of DTC (or of a participating firm that acts as agent for the Financial Intermediary, whose interest will in turn be recorded on the records of DTC, if the Note Owner's Financial Intermediary is not a Participant but rather an Indirect Participant), and on the records of Clearstream or Euroclear, and their respective Participants or Indirect Participants, as applicable.

Note Owners will receive all payments of principal and interest on the Book-Entry Notes from the Indenture Trustee through DTC (and Clearstream or Euroclear, as applicable) and Participants. While the Book-Entry Notes are outstanding (except under the circumstances described below), under the rules, regulations and procedures creating and affecting DTC and its operations (the "**Rules**"), DTC is required to make book-entry transfers among Participants on whose behalf it acts with respect to the Book-Entry Notes and is required to receive and transmit payments of principal of, and interest on, the Book-Entry Notes. Participants and Indirect Participants with whom Note Owners have accounts with respect to Book-Entry Notes are similarly required to make book-entry transfers and receive and transmit such payments on behalf of their respective Note Owners. Accordingly, although Note Owners will not possess certificates representing their respective interests in the Book-Entry Notes, the Rules provide a mechanism by which Note Owners will receive payments and will be able to transfer their interest. It is expected that payments by Participants and Indirect Participants to Note Owners will be governed by such standing instructions and customary practices. However, payments of principal and interest in respect of such Book-Entry Notes will be the responsibility of the applicable Participants and Indirect Participants and will not be the responsibility of DTC (or Clearstream or Euroclear, as applicable), the Issuer or the Indenture Trustee once paid or transmitted by them.

As indicated above, Note Owners will not receive or be entitled to receive certificates representing their respective interests in the Book-Entry Notes, except under the limited circumstances described below. Unless and until Definitive Notes are issued, Noteholders who are not Participants may transfer ownership of Book-Entry Notes only through Participants and Indirect Participants by instructing such Participants and Indirect Participants to transfer Book-Entry Notes, by book-entry transfer, through DTC (or Clearstream or Euroclear, as applicable), for the account of the purchasers of such Book-Entry Notes, which account is maintained with their respective Participants and Indirect Participants. Under the Rules and in accordance with DTC's normal procedures, transfers of ownership of Book-Entry Notes will be executed through DTC and the accounts of the respective Participants at DTC will be debited and credited. Similarly, the Participants and Indirect Participants will make debits or credits, as the case may be, on their records on behalf of the selling and purchasing Note Owners.

The laws of some states require that certain persons take physical delivery of securities in definitive certificated form. Consequently, this may limit a Note Owner's ability to transfer its interests in a Book-Entry Note to such persons. Because DTC can only act on behalf of its Participants, the ability of an owner of a beneficial interest in a Book-Entry Note to pledge such interest to persons or entities that are not DTC Participants, or otherwise take

actions in respect of such interest, may be limited by the lack of a definitive certificate for such interest. In addition, issuance of the Book-Entry Notes in book-entry form may reduce the liquidity of such Notes in the secondary market because certain prospective investors may be unwilling to purchase Notes for which they cannot obtain a physical certificate.

Because of time zone differences, credits of securities received in Clearstream or Euroclear as a result of a transaction with a Participant will be made during subsequent securities settlement processing and dated as of the next business day for Clearstream and Euroclear following the DTC settlement date. Such credits or any transactions in such securities settled during such processing will be reported to the relevant Euroclear or Clearstream Participants on such business day. Cash received in Clearstream or Euroclear as a result of sales of securities by or through a Clearstream Participant or Euroclear Participant to a DTC Participant will be received with value on the DTC settlement date but will be available in the relevant Clearstream or Euroclear cash account only as of the next business day for Clearstream and Euroclear following settlement in DTC.

Subject to compliance with the transfer restrictions applicable to the Book-Entry Notes set forth above, transfers between Participants will occur in accordance with the Rules. Transfers between Clearstream Participants and Euroclear Participants will occur in accordance with their respective rules and operating procedures.

DTC, which is a New York-chartered limited purpose trust company, performs services for its Participants, some of which (or their representatives) own DTC. In accordance with its normal procedures, DTC is expected to record the positions held by each DTC Participant in the Book-Entry Notes, whether held for its own account or as a nominee for another person. In general, beneficial ownership of Book-Entry Notes will be subject to the Rules, as in effect from time to time. Note Owners will not receive written confirmation from DTC of their purchase, but each Note Owner is expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the DTC Participant through which the Note Owner entered into the transaction.

Clearstream Banking société anonyme, 42 Avenue JF Kennedy, L-1855, Luxembourg ("**Clearstream**"), is a subsidiary of Clearstream International ("**Clearstream International**"), a Luxembourg limited liability company formed in January 2000 through the merger of Cedel International and Deutsche Boerse Clearing, a subsidiary of Deutsche Boerse AG. In July 2002, Deutsche Boerse AG acquired Cedel International and its 50% ownership of Clearstream International. Clearstream is registered as a bank in Luxembourg, and as such is subject to supervision by the Luxembourg Financial Sector Supervisory Commission, which supervises Luxembourg banks.

Clearstream holds securities for its customers ("**Clearstream Participants**") and facilitates the clearance and settlement of securities transactions by electronic book-entry transfers between their accounts. Clearstream provides various services, including safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream also deals with domestic securities markets in several countries through established depository and custodial relationships. Clearstream has established an electronic bridge with Euroclear Banks S.A./N.V. as the Euroclear Operator in Brussels to facilitate settlement of trades between systems.

Clearstream International's customers are world-wide financial institutions including underwriters, securities brokers and dealers, banks, trust companies and clearing corporations. Clearstream International's U.S. customers are limited to securities brokers and dealers and banks. Currently, Clearstream International offers settlement and custody services to more than two thousand five hundred (2,500) customers world-wide, covering three hundred thousand (300,000) domestic and internationally traded bonds and equities. Clearstream offers one of the most comprehensive international securities services available, settling more than two hundred fifty thousand (250,000) transactions daily. Indirect access to Clearstream is available to other institutions which clear through or maintain custodial relationship with an account holder of Clearstream.

The Euroclear System ("**Euroclear**") was created in 1968 to hold securities for its participants ("**Euroclear Participants**") and to clear and settle transactions between Euroclear Participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Transactions may be settled in a variety of currencies, including U.S. dollars. Euroclear includes various other securities, including securities lending and borrowing and interfaces with domestic markets in several countries generally similar to the arrangements for cross-market transfers with DTC described above. Euroclear is operated by Euroclear Bank S.A./N.V. (the "**Euroclear Operator**"). All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with Euroclear Operator. Euroclear plc establishes policy for Euroclear on behalf of Euroclear Participants. Euroclear Participants include banks (including central banks), securities brokers

and dealers and other professional financial intermediaries. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear Participant, either directly or indirectly.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System and applicable Belgian law (collectively, the "**Terms and Conditions**"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear Participants, and has no record of or relationship with persons holding through Euroclear Participants.

Payments on the Book-Entry Notes will be made on each Payment Date by the Indenture Trustee to Cede & Co., as nominee of DTC. DTC will be responsible for crediting the amount of such payments to the accounts of the applicable DTC Participants in accordance with DTC's normal procedures. Each DTC Participant will be responsible for disbursing such payments to the Note Owners of the Book-Entry Notes that it represents and to each Financial Intermediary for which it acts as agent. Each such Financial Intermediary will be responsible for disbursing funds to the Note Owners of the Book-Entry Notes that it represents.

Under a book-entry format, Note Owners may experience some delay in their receipt of payments, since such payments will be forwarded by the Indenture Trustee to Cede & Co. Payments with respect to Notes held through Clearstream or Euroclear will be credited to the cash accounts of Clearstream Participants or Euroclear Participants in accordance with the relevant system's rules and procedures, to the extent received by the Common Depository. Such payments will be subject to tax reporting in accordance with relevant U.S. tax laws and regulations. See "*Certain U.S. Federal Income Tax Consequences — Information Reporting and Backup Withholding*" in this Offering Memorandum.

DTC has advised the Indenture Trustee, unless and until Definitive Notes are issued or modified, DTC will take any action the holders of the Book-Entry Notes are permitted to take under the Indenture only at the direction of one or more Financial Intermediaries to whose DTC accounts the Book-Entry Notes are credited, to the extent that such actions are taken on behalf of Financial Intermediaries whose holdings include such Book-Entry Notes. Clearstream or the Euroclear Operator, as the case may be, will take any other action permitted to be taken by a Noteholder under the Indenture on behalf of a Clearstream Participant or Euroclear Participant only in accordance with its relevant rules and procedures and subject to the ability of the Common Depository to effect such actions on its behalf through DTC. DTC may take actions, at the direction of the related Participants, with respect to some Book-Entry Notes which conflict with actions taken with respect to other Book-Entry Notes.

Although DTC, Clearstream and Euroclear have agreed to the foregoing procedures in order to facilitate transfers of Book-Entry Notes among DTC Participants, Clearstream and Euroclear, they are under no obligation to perform or continue to perform such procedures and such procedures may be discontinued or modified at any time. Neither Fannie Mae nor the Indenture Trustee will have any responsibility for the performance by any system or their respective direct or Indirect Participants or accountholders of their respective obligations under the rules and procedures governing their operations.

Neither the Issuer nor the Indenture Trustee will have any responsibility for any aspect of the records relating to or payments made on account of beneficial ownership interests of the Book-Entry Notes held by Cede & Co., as nominee for DTC, or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests. In the event of the insolvency of DTC, a Participant or an Indirect Participant of DTC in whose name Book-Entry Notes are registered, the ability of the Note Owners of such Book-Entry Notes to obtain timely payment and, if the limits of applicable insurance coverage by the Securities Investor Protection Corporation are exceeded or if such coverage is otherwise unavailable, ultimate payment, of amounts distributable with respect to such Book-Entry Notes may be impaired.

Definitive Notes. Definitive Notes will be issued to Note Owners of the Book-Entry Notes, or their nominees, rather than to DTC, only if (a) DTC or Fannie Mae, as holder of the Ownership Certificate, advises the Indenture Trustee in writing that DTC is no longer willing, qualified or able to discharge properly its responsibilities as nominee and depository with respect to the Book-Entry Notes and the Issuer is unable to locate a qualified successor, (b) after the occurrence of an Event of Default under the Indenture, Note Owners having voting rights aggregating not less than a majority of all voting rights evidenced by the Book-Entry Notes advise the Indenture

Trustee and DTC through the Financial Intermediaries and the DTC Participants in writing that the continuation of a book-entry system through DTC (or a successor thereto) is no longer in the best interests of such Note Owners or (c) in the case of a particular Book-Entry Note, if all of the systems through which it is cleared or settled are closed for business for a continuous period of 14 calendar days (other than by reason of holidays, statutory or otherwise) or are permanently closed for business or have announced an intention to permanently cease business and in any such situations Fannie Mae is unable to locate a single successor within 90 calendar days of such closure. Upon the occurrence of any of the events described in the immediately preceding sentence, the Indenture Trustee will be required to notify all applicable Note Owners of the occurrence of such event and the availability of Definitive Notes. Upon surrender by DTC of the global security or securities representing such Book-Entry Notes and instructions for re-registration, the Issuer will issue Definitive Notes and thereafter the Indenture Trustee will recognize the owners of such Definitive Notes as Noteholders under the Indenture. Such Definitive Notes may also bear additional legends that Fannie Mae deems advisable. None of the Notes will ever be issuable in bearer form.

Any portion of an interest in such a Book-Entry Note transferred or exchanged will be executed, authenticated and delivered only in the required minimum denomination as set forth herein. A Definitive Note delivered in exchange for an interest in such a Book-Entry Note will bear the applicable legend set forth in the applicable exhibits to the Indenture and will be subject to the transfer restrictions referred to in such applicable legends and any additional transfer restrictions as may from time to time be adopted by Fannie Mae and the Indenture Trustee.

The holders of the Definitive Notes will be able to transfer or exchange the Definitive Notes by surrendering them at the office of the Indenture Trustee (or the Exchange Administrator, for exchanges of Exchangeable Notes for RCR Notes and vice versa) together with the form of transfer endorsed thereon duly completed and executed, and otherwise in accordance with the provisions of the Indenture, and in exchange therefor one or more new Definitive Notes will be issued having an aggregate Class Principal Balance equal to the remaining Class Principal Balance of the Definitive Notes transferred or exchanged.

The Indenture Trustee will keep in a note register the records of the ownership, exchange and transfer of Definitive Notes. No service charge will be imposed for any registration of transfer or exchange of a Definitive Note, but the Indenture Trustee may require payment of a sum sufficient to cover any tax or other governmental charge imposed in connection therewith.

Payments

On the Closing Date, the Indenture Trustee will establish and maintain an account for the benefit of Noteholders (the "**Note Distribution Account**"), into which certain deposits will be made for the purpose of making payments to Noteholders. The Note Distribution Account will include deposits from time to time of (a) investment income earned on Eligible Investments held in the Cash Collateral Account (up to the amount of the LIBOR Interest Component for a Payment Date), (b) proceeds from the liquidation of Eligible Investments, (c) any Transfer Amounts, Capital Contribution Amounts and Return Reimbursement Amounts received from Fannie Mae and (d) without duplication of the amounts set forth in clauses (a) through (c) above, other amounts payable to the Issuer in respect of the Designated Q-REMIC Interests; *provided*, that amounts payable in respect of the X-IO Interest will be paid directly to the X-IO Interestholder and will not be deposited in the Note Distribution Account.

Payments on the Notes will be made by the Indenture Trustee, as paying agent, on the twenty-fifth (25th) day of each month (or, if such day is not a Business Day, then on the next succeeding Business Day), beginning in February 2020 (each, a "**Payment Date**"), to the persons in whose names such Notes are registered as of the close of business on the immediately preceding Business Day in the case of Book-Entry Notes and as of the close of business on the last day of the preceding month of such Payment Date in the case of Definitive Notes (the "**Record Date**"). The Exchange Administrator will notify the Indenture Trustee with respect to any exchanges of Exchangeable Notes for RCR Notes and vice versa at the time of such exchange, and the Indenture Trustee will make all subsequent payments in accordance with this notice, unless notified of a subsequent exchange by the Exchange Administrator.

A "**Business Day**" means a day other than:

- A Saturday or Sunday.
- A day on which the corporate trust offices of the Indenture Trustee (currently located at 9062 Old Annapolis Road, Columbia, Maryland 21045), the offices of DTC, the Federal Reserve Bank of New York or banking institutions in the City of New York are authorized or obligated by law or executive order to be closed.

Payments on each Payment Date will be made by wire transfer in immediately available funds to each Noteholder's account at a bank or other depository institution having appropriate wire transfer facilities. Cede & Co. will be the registered holder of the Notes. However, the final payment on any Note will be made in like manner only upon presentation and surrender of such Note at the offices of the Corporate Trust Services division of the Indenture Trustee located at Corporate Trust Operations, MAC N9300-070, 600 South Fourth Street, 7th Floor, Minneapolis, Minnesota 55479, or as otherwise indicated on the relevant notice thereof. Payments will be made to Note Owners through the facilities of DTC, as described above under "*Form, Registration and Transfer of the Notes*".

Payments on the Notes are to be made by the Indenture Trustee without deduction or withholding of taxes, except as otherwise required by law. The Notes will not provide for any gross-up payments in the case that payments on the Notes become subject to any deduction or withholding on account of taxes.

Maturity Date

The Notes become fully payable and due on the Payment Date in January 2040 (the "**Maturity Date**"). On the Maturity Date, the Issuer will be obligated to retire the Notes by paying an amount equal to their full remaining Class Principal Balances, plus accrued and unpaid interest.

The Notes will be retired prior to the Maturity Date on the earliest to occur, if any, of (a) the Early Redemption Date or (b) the Payment Date on which the aggregate Class Principal Balance of all outstanding Notes is otherwise reduced to zero.

If on such date a Class of RCR Notes is outstanding, all amounts payable on the Exchangeable Notes that were exchanged for such RCR Notes will be allocated to and payable on the applicable RCR Notes entitled to receive those amounts.

Early Redemption Option

Fannie Mae, as holder of the Ownership Certificate, may direct the Indenture Trustee to redeem the Class 1M-1 Notes, Class 1M-2A Notes, Class 1M-2B Notes, Class 1M-2C Notes and Class 1B-1 Notes on any Payment Date on or after the earlier to occur of (a) the Payment Date in January 2027 and (b) the Payment Date on which the aggregate unpaid principal balance of the Reference Obligations is less than or equal to 10% of the Cut-off Date Balance, in each case by paying an amount equal to the outstanding Class Principal Balance, after allocation of any Tranche Write-down Amount or Tranche Write-up Amount for such Payment Date, of each of the Class 1M-1 Notes, Class 1M-2A Notes, Class 1M-2B Notes, Class 1M-2C Notes and Class 1B-1 Notes, plus accrued and unpaid interest on such Notes and all unpaid fees, expenses and indemnities of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee (the "**Early Redemption Option**").

If on the Early Redemption Date a Class of RCR Notes is outstanding, all principal and interest amounts that are payable by Fannie Mae on the Exchangeable Notes that were exchanged for such RCR Notes will be allocated to and payable on the applicable RCR Notes.

Early Redemption Date

The Notes will be retired prior to the Maturity Date on the date that is the earlier to occur of (i) the date on which the Notes are redeemed by the Issuer pursuant to the Early Redemption Option as described above and (ii) the CAA Early Termination Date (if such date is a result of the occurrence of a CAA Trigger Event) (the "**Early Redemption Date**").

Termination Date

The Notes will no longer be entitled to payments of principal or interest after the date (the "**Termination Date**") which is the earliest of:

- the Maturity Date;
- the Early Redemption Date; and

- the Payment Date on which the aggregate initial Class Principal Balance (without giving effect to any allocations of Tranche Write-down Amounts or Tranche Write-up Amounts related to the Classes on such Payment Date and all prior Payment Dates) and accrued and unpaid interest due on the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes, plus unpaid related fees, expenses and indemnities of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee, have otherwise been paid in full.

Projected Recovery Amount

On the Termination Date, the Projected Recovery Amount will be included in the calculation of the Principal Recovery Amount.

"**Projected Recovery Amount**" means, for the Notes and as of the Termination Date, the aggregate amount of subsequent recoveries, net of expenses and credits, projected to be received, calculated based on a formula to be derived by Fannie Mae from the actual net recovery experience during the 30-month period immediately preceding the Termination Date, plus any additional amount determined by Fannie Mae in its sole discretion to be appropriate for purposes of the foregoing projection in light of then-current market conditions. Information regarding the formula and results of the related calculations will be provided to Holders through Payment Date Statements in advance of the Termination Date, if any. In the absence of manifest error, Fannie Mae's determination of the Projected Recovery Amount will be final.

Interest

The Class Coupon and Note Accrual Period for each Class of Notes for each Payment Date is as described in the "*Summary of Terms — Interest*".

The Indenture Trustee calculates the Class Coupons for each floating rate Note for each Note Accrual Period (after the first Note Accrual Period) on the second LIBOR Business Day before the Note Accrual Period begins (a "**LIBOR Adjustment Date**"). "**LIBOR Business Day**" is a day on which banks are open for dealing in foreign currency and exchange in London, New York City and Washington, D.C. The Indenture Trustee determines "**One-Month LIBOR**" by using the "**Interest Settlement Rate**" for U.S. dollar deposits with a maturity of one month set by ICE as of 11:00 a.m. (London time) on the LIBOR Adjustment Date (the "**ICE Method**").

The Interest Settlement Rate is currently made available on the Reuters Screen LIBOR01 Page. That page, or any other page that may replace the Reuters Screen LIBOR01 Page or any other service ICE nominates as the information vendor to display the Interest Settlement Rate for deposits in U.S. dollars, is a "**Designated Page**". ICE's Interest Settlement Rates currently are rounded to six decimal places (and rounded up to five decimal places where the sixth digit is five or greater). If ICE's Interest Settlement Rate does not appear on the Designated Page as of 11:00 a.m. (London time) on a LIBOR Adjustment Date, or if the Designated Page is not then available, Fannie Mae will provide the Indenture Trustee with the most recently published Interest Settlement Rate to determine One-Month LIBOR for such date.

If Fannie Mae, as holder of the Ownership Certificate, determines that the methods for establishing LIBOR are no longer viable or that prevailing industry practices with respect to benchmark rates have transitioned, or are very likely to transition, away from the use of LIBOR, Fannie Mae may in its discretion designate an alternative method or, if appropriate, an alternative index for the determination of monthly interest rates on the floating rate Notes. In making any such designation, Fannie Mae will take into account general comparability and other factors, including then-prevailing industry practices. Further, Fannie Mae may also determine the business day convention, the definition of business day, the reference rate date and the determination date to be used and any other methodology for calculating the alternative method or index, and Fannie Mae may apply an adjustment factor to any designated alternative index as it deems appropriate to better achieve comparability to the current index and otherwise in keeping with industry-accepted practices (in each case, with notice of such alternative method or alternative index, as applicable, to the Indenture Trustee at least five (5) Business Days prior to the initial Payment Date with respect to which such change is effective). However, in such case, Fannie Mae can provide no assurance that the alternative index will yield the same or similar economic results over the lives of the Notes. See "*Risk Factors — Investment Factors and Risks Related to the Notes — LIBOR Levels Could Reduce the Yield on the Floating Rate Notes*", "*Uncertainty as to the Determination of LIBOR and the Potential Phasing Out of LIBOR after 2021 May Adversely Affect the Value of the Floating Rate Notes*" and "*The Use of an Alternative Method or Index in Place of LIBOR for Determining Monthly Interest Rates May Adversely Affect the Value of Certain Notes*". Unless and until Fannie

Mae, as holder of the Ownership Certificate, designates an alternative method or index for the determination of monthly interest rates on the floating rate Notes, One-Month LIBOR will continue to be determined in accordance with the preceding two paragraphs.

None of the Delaware Trustee, the Indenture Trustee, the Exchange Administrator, the Custodian or the Investment Agent will have any liability or obligation with respect to (i) determining that the methods for establishing One-Month LIBOR are no longer viable or that prevailing industry practices with respect to benchmark rates have transitioned, or are very likely to transition, away from the use of One-Month LIBOR or (ii) designating an alternative method or, if appropriate, an alternative index for the determination of monthly interest rates on the floating rate Notes, including providing, obtaining or calculating any index, alternative, rate, benchmark or adjustment factors, even if Fannie Mae, as holder of the Ownership Certificate, does not take these actions.

On each Payment Date, each Class of Notes, to the extent outstanding, will be entitled to receive interest accrued during the related Note Accrual Period at the applicable Class Coupon on the related Class Principal Balance as of the first (1st) day of that Note Accrual Period, *less* any Modification Loss Amount for that Payment Date allocated to reduce the Interest Payment Amount for that Class of Notes as described under "*Hypothetical Structure and Calculations with Respect to the Reference Tranches—Allocation of Modification Loss Amount*" below.

Accrued interest to be paid on any Payment Date will be calculated for each Class of Notes on the basis of the Class Principal Balance or Class Notional Amount, as applicable, of the related Class immediately prior to such Payment Date. Interest will be calculated and payable on the basis of the actual number of days in the related Note Accrual Period and a 360-day year.

The determination by the Indenture Trustee of the Class Coupon on the Notes and the determination of any payment on any Note (or any interim calculation in the determination of any such interest rate, index or payment) will, absent manifest error, be final and binding on the Noteholders of the relevant Notes.

With respect to each outstanding Class of Notes and any Payment Date, Holders thereof will be entitled to receive the Interest Accrual Amount for that Class of Notes, *less* any Modification Loss Amount for that Payment Date allocated to reduce the Interest Payment Amount for that Class of Notes as described under "*Allocation of Modification Loss Amount*" below (such amount, the "**Interest Payment Amount**"). In each case, interest amounts that are payable by the Issuer on the related Exchangeable Notes will be allocated to and payable on any outstanding RCR Notes. The "**Interest Accrual Amount**" with respect to each outstanding Class of Notes (and, for purposes of calculating allocations of any Modification Loss Amounts, the Class 1B-2H Reference Tranche) and any Payment Date is an amount equal to the accrued interest at the Class Coupon on the Class Principal Balance (or Class Notional Amount, as applicable) of each Class of Notes (or, for purposes of calculating allocations of any Modification Loss Amounts, the Class 1B-2H Reference Tranche) immediately prior to such Payment Date.

On each Remittance Date, Fannie Mae is required to deposit in the Note Distribution Account the amount by which (a) the aggregate Interest Payment Amount for the related Payment Date exceeds (b) the LIBOR Interest Component for such Payment Date (such difference, the "**Transfer Amounts**"), pursuant to the Collateral Administration Agreement (it being understood that the Trust Estate Yield for a Payment Date will be deemed to satisfy, up to the amount of such Trust Estate Yield, Fannie Mae's Transfer Amount payment obligation for the related Remittance Date). Additionally, on each Remittance Date, Fannie Mae is required to deposit in the Note Distribution Account the LIBOR Interest Component Contribution portion of the Capital Contribution Amount, pursuant to the Capital Contribution Agreement. On each Payment Date, the Indenture Trustee will withdraw such amounts from the Note Distribution Account and pay such amounts to the Noteholders in respect of interest on the Notes for such Payment Date.

The "**Capital Contribution Amount**" for any Remittance Date is the sum of the LIBOR Interest Component Contribution, if any, for such Remittance Date and the Investment Liquidation Contribution, if any, for such Remittance Date.

The "**LIBOR Interest Component Contribution**" for any Remittance Date is the excess, if any, of (a) the LIBOR Interest Component for the related Payment Date over (b) investment earnings on Eligible Investments in the Cash Collateral Account during the related Investment Accrual Period.

The "**Investment Liquidation Contribution**" for any Remittance Date is an amount equal to the excess, if any, of (a) the principal amount (book value) of Eligible Investments liquidated in respect of such Remittance Date over (b) the liquidation proceeds of such Eligible Investments.

Principal

On each Remittance Date, the Investment Agent will direct the Custodian to liquidate Collateral in the Cash Collateral Account to the extent necessary for the Issuer to pay any Return Amounts to Fannie Mae and to pay principal on the Notes as required under the Indenture, and deposit the amount payable as principal, together with the interest earned on the Collateral during the related Note Accrual Period, in the Note Distribution Account. Additionally, on each Remittance Date, Fannie Mae is required to deposit in the Note Distribution Account the Investment Liquidation Contribution portion, if any, of the Capital Contribution Amount, pursuant to the Capital Contribution Agreement. Except as described below, on each Payment Date, the Indenture Trustee will withdraw from the Note Distribution Account and pay as principal to the Holders of each outstanding Class of Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes) an amount equal to the portion of Senior Reduction Amount, Subordinate Reduction Amount and/or Supplemental Subordinate Reduction Amount, as applicable, allocated to reduce the Class Notional Amount of the corresponding Reference Tranche on such Payment Date as described under "*Hypothetical Structure and Calculations with Respect to the Reference Tranches*" below.

On the earlier to occur of (x) the Early Redemption Date, if any, and (y) the Maturity Date, the Indenture Trustee will pay, from amounts in respect of the liquidation of Eligible Investments in the Cash Collateral Account and transferred to Note Distribution Account, 100% of the outstanding Class Principal Balance to Holders of each Class of Notes, after allocations of any Tranche Write-down Amount and the Tranche Write-up Amount for such Payment Date (without regard to any exchanges of Exchangeable Notes for RCR Notes) and after payment of all unpaid fees, expenses and indemnities of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee.

In each case, principal amounts that are payable on the Exchangeable Notes will be allocated to and payable on any outstanding RCR Notes that are entitled to principal.

In addition, on the Termination Date, the Projected Recovery Amount will be included in the calculation of the Principal Recovery Amount.

Reductions in Class Principal Balances or Class Notional Amounts of the Notes Due to Allocation of Tranche Write-down Amounts

On each Payment Date, including the Maturity Date, the Class Principal Balance or Class Notional Amount, as applicable, of each Class of Notes will be reduced, without any corresponding payment of principal, by the amount of the reduction, if any, in the Class Notional Amount of the corresponding Reference Tranche due to the allocation of the Tranche Write-down Amount to such Reference Tranche on such Payment Date pursuant to the terms of the hypothetical structure described under "*Hypothetical Structure and Calculations with Respect to the Reference Tranches*" below. On each Remittance Date, under the Collateral Administration Agreement, the Issuer will be obligated to pay to Fannie Mae the aggregate of Tranche Write-down Amounts, if any, allocated to reduce the Class Principal Balance of each applicable outstanding Class of Notes on the related Payment Date (without regard to any exchanges of Exchangeable Notes for any RCR Notes) (the "**Return Amounts**").

Increases in Class Principal Balances or Class Notional Amounts of the Notes Due to Allocation of Tranche Write-up Amounts

On each Payment Date, including the Maturity Date, the Class Principal Balance or Class Notional Amount, as applicable, of each Class of Notes will be increased by the amount of the increase, if any, in the Class Notional Amount of the corresponding Reference Tranche due to the allocation of the Tranche Write-up Amount to such Reference Tranche on such Payment Date pursuant to the terms of the hypothetical structure described under "*Hypothetical Structure and Calculations with Respect to the Reference Tranches*" below. For the avoidance of doubt, through the Maturity Date, a Tranche Write-up Amount may be applied to any related Reference Tranche whose Class Notional Amount has previously been reduced to zero (until the cumulative Tranche Write-up Amount allocated to such Reference Tranche is equal to the cumulative Tranche Write-down Amount previously allocated to such Reference Tranche). On each Remittance Date, under the Collateral Administration Agreement, Fannie Mae will be obligated to pay to the Issuer the aggregate of Tranche Write-up Amounts, if any, allocated to increase the Class Principal Balances of the applicable outstanding Classes of Notes on such Payment Date (without regard to

any exchanges of Exchangeable Notes for any RCR Notes) (the "**Return Reimbursement Amounts**"), with such amounts to be distributed as principal to Noteholders on the related Payment Date.

Hypothetical Structure and Calculations with Respect to the Reference Tranches

Solely for purposes of making the calculations for each Payment Date of (i) principal write-downs (or write-ups) on the Notes as a result of Credit Events (or reversals thereof) or Modification Events on the Reference Obligations, (ii) any reduction or increase in interest amounts on the Notes as a result of Modification Events on the Reference Obligations and (iii) principal payments required to be made on the Notes, a hypothetical structure of Reference Tranches deemed to be backed by the Reference Obligations has been established as indicated in the table set forth under "*Transaction Summary*" above. Pursuant to the hypothetical structure:

- the Class 1A-H Reference Tranche is senior to all the other Reference Tranches and therefore does not provide any credit enhancement to the other Reference Tranches,
- the Class 1M-1 and Class 1M-1H Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H Reference Tranche and are senior to the Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1M-2A and Class 1M-AH Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H, Class 1M-1 and Class 1M-1H Reference Tranches and are senior to the Class 1M-2B, Class 1M-BH, Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1M-2B and Class 1M-BH Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A and Class 1M-AH Reference Tranches and are senior to the Class 1M-2C, Class 1M-CH, Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1M-2C and Class 1M-CH Reference Tranches are *pari passu* with each other, are subordinate to the Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B and Class 1M-BH Reference Tranches and are senior to the Class 1B-1, Class 1B-1H and Class 1B-2H Reference Tranches,
- the Class 1B-1 and Class 1B-1H Reference Tranches are *pari passu* with each other and are subordinate to the Class 1A-H, Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C and Class 1M-CH Reference Tranches and are senior to the Class 1B-2H Reference Tranche, and
- the Class 1B-2H Reference Tranche is subordinate to all the other Reference Tranches and therefore does not benefit from any credit enhancement (other than any Overcollateralization Amount).

Each Reference Tranche will have the initial Class Notional Amount indicated in the table set forth under "*Transaction Summary*" and the aggregate of the initial Class Notional Amounts of all the Reference Tranches will equal the Cut-off Date Balance.

Allocation of Senior Reduction Amount and Subordinate Reduction Amount

On each Payment Date on or prior to the Termination Date, the Senior Reduction Amount will be allocated to reduce the Class Notional Amount of each Reference Tranche in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1A-H Reference Tranche,

second, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

third, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fifth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

sixth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, and

seventh, to the Class 1B-2H Reference Tranche.

On each Payment Date on or prior to the Termination Date, the Subordinate Reduction Amount will be allocated to reduce the Class Notional Amount of each Reference Tranche in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

second, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

third, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fourth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

fifth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date,

sixth, to the Class 1B-2H Reference Tranche, and

seventh, to the Class 1A-H Reference Tranche.

Because the Notes correspond to the related Reference Tranches, any portion of the Senior Reduction Amount or Subordinate Reduction Amount allocated to a Reference Tranche will result in a corresponding reduction in the Class Principal Balance of the related Class of Notes. Any such reductions in the Class Principal Balance of a Class of Exchangeable Notes will result in a corresponding reduction in the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes.

Related Definitions

The "**Senior Reduction Amount**" with respect to any Payment Date is either:

(A) if either the Minimum Credit Enhancement Test or the Delinquency Test is not satisfied, the sum of:

(i) the Senior Percentage of the Scheduled Principal for such Payment Date;

(ii) 100% of the Unscheduled Principal for such Payment Date; and

(iii) 100% of the Excess Credit Event Amount for such Payment Date; or

(B) if the Minimum Credit Enhancement Test and the Delinquency Test are both satisfied, the sum of:

(i) the Senior Percentage of the Scheduled Principal for such Payment Date;

(ii) the Senior Percentage of the Unscheduled Principal for such Payment Date; and

(iii) 100% of the Excess Credit Event Amount for such Payment Date.

The "**Subordinate Reduction Amount**" with respect to any Payment Date is the sum of the Scheduled Principal, Unscheduled Principal and Excess Credit Event Amount for such Payment Date, less the Senior Reduction Amount.

The "**Senior Percentage**" with respect to any Payment Date and the Notes, is the percentage equivalent of a fraction, the numerator of which is the Class Notional Amount of the Class 1A-H Reference Tranche immediately prior to such Payment Date and the denominator of which is the aggregate unpaid principal balance of the Reference Obligations at the end of the previous Reporting Period.

The "**Subordinate Percentage**" with respect to any Payment Date and the Notes is the percentage equal to 100% *minus* the Senior Percentage for such Payment Date. On the Closing Date, the approximate initial Subordinate Percentage will be 3.95%.

"**Scheduled Principal**" with respect to any Payment Date is the sum of all monthly scheduled payments of principal due (whether with respect to the related Reporting Period or any prior Reporting Period) on the Reference Obligations and reported to Fannie Mae and collected by the related servicer during the related Reporting Period.

"**Unscheduled Principal**" with respect to any Payment Date is:

- (a) all partial principal prepayments on the Reference Obligations collected during the related Reporting Period, *plus*
- (b) the aggregate unpaid principal balance of all Reference Obligations that became subject to Reference Pool Removals during the related Reporting Period other than (i) Credit Event Reference Obligations and (ii) the portions of any prepayments in full that consist of scheduled principal collections, *plus*
- (c) decreases in the unpaid principal balance of all Reference Obligations as the result of loan modifications or data corrections, *plus*
- (d) all scheduled principal collections, if any, for any Reference Obligations that have been removed from the related MBS, *plus*
- (e) the excess, if any, of the aggregate unpaid principal balance of the Reference Obligations refinanced under the High LTV Refinance Option and removed from the Reference Pool during the related Reporting Period, over the aggregate original unpaid principal balance of the resulting High LTV Refinance Reference Obligations, *minus*
- (f) increases in the unpaid principal balance of all Reference Obligations as the result of loan modifications or data corrections.

In the event the amount in clause (f) above exceeds the sum of the amounts in clauses (a) through (e) above, the Unscheduled Principal for the applicable Payment Date will be zero, and the Class Notional Amount for the Class 1A-H Reference Tranche will be increased by the amount of such excess. In the event that the Class Notional Amount for the Class 1A-H Reference Tranche is so increased as described in the prior sentence, this would have the effect of increasing the Senior Percentage correspondingly reducing the Subordinate Percentage, which would have a negative impact on the Notes in respect of the calculations of the Senior Reduction Amount and the Subordinate Reduction Amount, as described above. In April 2016, at the direction of its regulator and conservator FHFA, Fannie Mae announced a program that permits principal forgiveness as a loss mitigation alternative for a limited number of loans that were 90 days or more delinquent and has an unpaid principal balance in excess of the value of the related mortgaged property as of March 2016. No Reference Obligations are eligible for inclusion in this program. While there is no indication that this program will be extended or replicated, if any similar program of principal reduction were to be employed in the future that affected the Reference Obligations, any principal that was forgiven with respect to a Reference Obligation would decrease the unpaid principal balance of such Reference Obligation pursuant to clause (c) above.

"**Excess Credit Event Amount**" with respect to any Payment Date is the *sum* of:

- (i) the excess, if any, of the Credit Event Amount for such Payment Date, *over* the Tranche Write-down Amount for such Payment Date; *plus*

(ii) the Tranche Write-up Amount for such Payment Date.

The "**Delinquency Test**" for any Payment Date is a test that will be satisfied if:

(a) the sum of the Distressed Principal Balance for the current Payment Date and each of the preceding five Payment Dates, divided by six, is less than

(b) 40% of the excess of (i) the product of (x) the Subordinate Percentage and (y) the aggregate UPB of the Reference Obligations as of the preceding Payment Date over (ii) the Principal Loss Amount for the current Payment Date.

The "**Distressed Principal Balance**" for any Payment Date is the aggregate UPB of the Reference Obligations that are 90 days or more delinquent or are otherwise in foreclosure, bankruptcy or REO status as of that Payment Date.

The "**Minimum Credit Enhancement Test**" with respect to any Payment Date is a test that will be satisfied if the Subordinate Percentage (solely for purposes of such test, rounded to the sixth decimal place) is greater than or equal to 4.650000%.

The "**UPB**" of a Reference Obligation is its unpaid principal balance as of any date of determination.

Allocation of Tranche Write-down Amounts

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount and Subordinate Reduction Amount, the Tranche Write-down Amounts, if any, for such Payment Date will be allocated, *first*, to reduce any Overcollateralization Amount for such Payment Date, until such Overcollateralization Amount is reduced to zero and, *second*, to reduce the Class Notional Amount of each Reference Tranche in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1B-2H Reference Tranche,

second, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts,

third, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fifth, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

sixth, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts, and

seventh, to the Class 1A-H Reference Tranche (up to the amount of any remaining unallocated Tranche Write-down Amounts *less* the amount attributable to clause (d) of the definition of "Principal Loss Amount").

Because the Notes correspond to the related Reference Tranches, any Tranche Write-down Amounts allocated to a Reference Tranche will result in a corresponding reduction in the Class Principal Balance of the related Class of Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount allocable to a Class of Exchangeable Notes will be allocated to reduce the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero).

Related Definitions

A "**Credit Event**" with respect to any Payment Date on or before the Termination Date and any Reference Obligation is the first to occur of any of the following events during the related Reporting Period, as reported by the

servicer to Fannie Mae, if applicable: (i) a short sale is settled, (ii) the related mortgaged property is sold to a third party during the foreclosure process, (iii) an REO disposition occurs, (iv) a mortgage note sale is executed with respect to a loan that is 12 or more months delinquent when offered for sale or (v) the related mortgage note is charged off. With respect to any Credit Event Reference Obligation, there can only be one occurrence of a Credit Event; *provided*, that one additional separate Credit Event can occur with respect to each instance of such Credit Event Reference Obligation becoming a Reversed Credit Event Reference Obligation. For the avoidance of doubt, Fannie Mae notes that a refinancing of a Reference Obligation under its High LTV Refinance Option and replacement thereof with the resulting High LTV Refinance Reference Obligation will not constitute a "Credit Event."

The "**Credit Event Amount**" with respect to any Payment Date is the aggregate amount of the Credit Event UPBs of all Credit Event Reference Obligations for the related Reporting Period.

The "**Credit Event Net Gain**" with respect to any Credit Event Reference Obligation is an amount equal to the *excess*, if any, of:

(a) the Net Liquidation Proceeds *over*

(b) the *sum* of:

(i) the Credit Event UPB;

(ii) the total amount of prior principal forgiveness modifications (excluding any reduction in principal balance that resulted from the origination of a High LTV Refinance Reference Obligation), if any, on the related Credit Event Reference Obligation; and

(iii) delinquent accrued interest thereon, calculated at the related Current Accrual Rate from the related last paid interest date through the date such Reference Obligation has been reported as a Credit Event Reference Obligation.

The "**Credit Event Net Loss**" with respect to any Credit Event Reference Obligation is an amount equal to the *excess*, if any, of:

(a) the sum of:

(i) the Credit Event UPB;

(ii) the total amount of prior principal forgiveness modifications (excluding any reduction in principal balance that resulted from the origination of a High LTV Refinance Reference Obligation), if any, on the related Credit Event Reference Obligation; and

(iii) delinquent accrued interest thereon, calculated at the related Current Accrual Rate from the related last paid interest date through the date such Reference Obligation has been reported as a Credit Event Reference Obligation, *over*

(b) the related Net Liquidation Proceeds.

A "**Credit Event Reference Obligation**" with respect to any Payment Date is any Reference Obligation with respect to which a Credit Event has occurred.

The "**Credit Event UPB**" with respect to any Credit Event Reference Obligation is the unpaid principal balance thereof as of the end of the Reporting Period related to the Payment Date that it became a Credit Event Reference Obligation.

The "**Current Accrual Rate**" with respect to any Payment Date and Reference Obligation is the current mortgage rate (as adjusted for any Modification Event), less the greater of (x) the related servicing fee rate and (y) 35 basis points.

The "**Liquidation Proceeds**" with respect to a Credit Event Reference Obligation represent all cash amounts (including sales proceeds, net of selling expenses) received in connection with the liquidation of the Credit Event Reference Obligation.

A "**Modification Event**" with respect to any Reference Obligation is a forbearance or certain mortgage rate modifications relating to such Reference Obligation, it being understood that in the absence of a forbearance or certain mortgage rate modifications, a term extension on a Reference Obligation will not constitute a Modification Event. In addition, a mortgage rate modification that results in an increased mortgage rate with respect to any Reference Obligation (after giving effect to all scheduled mortgage rate modifications thereon) will not constitute a "Modification Event." For example, in the case of a mortgage rate modification that provides for a mortgage rate reduction from 4% to 2% followed by a future step-up in the mortgage rate from 2% to 5%, the modification will not be treated as a "Modification Event." By contrast, in the case of a mortgage rate modification that provides for a mortgage rate reduction from 4% to 2% followed by a future step-up in the mortgage rate from 2% back to 4%, the modification will be treated as a "Modification Event." In addition, for the avoidance of doubt, Fannie Mae notes that a refinancing of a Reference Obligation under its High LTV Refinance Option and replacement thereof with the resulting High LTV Refinance Reference Obligation will not constitute a "Modification Event."

The "**Modification Loss Amount**" with respect to each Payment Date and any Reference Obligation that has experienced a Modification Event is the excess, if any, of:

- (a) one-twelfth of the Original Accrual Rate multiplied by the UPB of such Reference Obligation, over
- (b) one-twelfth of the Current Accrual Rate multiplied by the interest bearing UPB of such Reference Obligation.

The "**Net Liquidation Proceeds**" with respect to any Credit Event Reference Obligation are the sum of the related Liquidation Proceeds and any proceeds received from the related servicer in connection with such Credit Event Reference Obligation, less related expenses and credits, including but not limited to taxes and insurance, legal costs, maintenance and preservation costs, in each case during the period including the month in which such Reference Obligation became a Credit Event Reference Obligation together with the immediately following three-month period.

The "**Original Accrual Rate**" with respect to any Reference Obligation is the mortgage rate as of the Cut-off Date or, in the case of a High LTV Refinance Reference Obligation, the origination date, less the greater of (x) the related servicing fee and (y) 35 basis points.

The "**Reversed Credit Event Amount**" with respect to any Payment Date is the aggregate amount of the Credit Event UPB of all Reversed Credit Event Reference Obligations for the related Reporting Period.

A "**Reversed Credit Event Reference Obligation**" with respect to each Payment Date is a Reference Obligation formerly in the Reference Pool that became a Credit Event Reference Obligation in a prior Reporting Period and with respect to which (i) the related loan seller or servicer repurchases the Reference Obligation, enters into a full indemnification agreement with Fannie Mae or provides a fee in lieu of repurchase for the Reference Obligation, (ii) the party responsible for the representations and warranties with respect to the Reference Obligation was granted relief by Fannie Mae from liability for potential breaches of specified Eligibility Defects at the time Fannie Mae acquired the Reference Obligation and an Eligibility Defect is identified that could otherwise have resulted in a repurchase but for the aforementioned relief, provided that the Eligibility Defect is identified on or before the 36th month following the date of Fannie Mae's acquisition of the Reference Obligation, (iii) the party responsible for the representations and warranties and/or servicing obligations or liabilities with respect to the Reference Obligation (A) has declared bankruptcy or has been put into receivership or (B) has otherwise been relieved of such obligations or liabilities by operation of law or by agreement, and an Eligibility Defect is identified that could otherwise have resulted in a repurchase or (iv) Fannie Mae determines that as a result of a data correction, the Reference Obligation does not meet certain Eligibility Criteria.

The "**Tranche Write-down Amount**" with respect to any Payment Date is the excess, if any, of the Principal Loss Amount for such Payment Date over the Principal Recovery Amount for such Payment Date.

With respect to any Payment Date, the Class Notional Amount for the Class 1A-H Reference Tranche will be increased by the excess, if any, of the Tranche Write-down Amount for such Payment Date over the Credit Event Amount for such Payment Date.

Allocation of Tranche Write-up Amounts

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount, the Subordinate Reduction Amount and any Tranche Write-down Amounts, the Tranche Write-up Amounts, if any, for such Payment Date will be allocated to increase the Class Notional Amount of each Reference Tranche in the following order of priority until the cumulative Tranche Write-up Amount allocated to each such Reference Tranche is equal to the cumulative Tranche Write-down Amount previously allocated to such Reference Tranche on or prior to such Payment Date:

first, to the Class 1A-H Reference Tranche,

second, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts,

third, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fifth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

sixth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, and

seventh, to the Class 1B-2H Reference Tranche.

Because the Notes correspond to the related Reference Tranches, any Tranche Write-up Amounts allocated to a Reference Tranche will result in a corresponding increase in the Class Principal Balance of the related Class of Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-up Amount allocable to the a Class of Exchangeable Notes will be allocated to increase the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes.

Write-up Excess

To the extent that the Tranche Write-up Amount on any Payment Date exceeds the Tranche Write-up Amount allocated on such Payment Date, the excess (the "**Write-up Excess**") will be available as overcollateralization to offset any Tranche Write-down Amounts on future Payment Dates prior to the allocation of such Tranche Write-down Amounts to reduce the Class Notional Amounts of the Reference Tranches. On each Payment Date, the "**Overcollateralization Amount**" equals (a) the aggregate amount of Write-up Excesses for such Payment Date and all prior Payment Dates, minus (b) the aggregate amount of Write-up Excess amounts used to offset Tranche Write-down Amounts on all prior Payment Dates.

Related Definitions

The "**Tranche Write-up Amount**" with respect to any Payment Date is the excess, if any, of the Principal Recovery Amount for such Payment Date over the Principal Loss Amount for such Payment Date.

The "**Principal Loss Amount**" with respect to any Payment Date is the sum of:

(a) the aggregate amount of Credit Event Net Losses for all Credit Event Reference Obligations for the related Reporting Period;

(b) the aggregate amount of court-approved principal reductions ("cramdowns") on the Reference Obligations in the related Reporting Period;

(c) subsequent losses on any Reference Obligation that became a Credit Event Reference Obligation on a prior Payment Date and with respect to which Net Liquidation Proceeds have already been determined; and

(d) amounts included in the *second, fourth, eighth, ninth, tenth and twelfth* priorities under "*Allocation of Modification Loss Amount*" below.

The "**Principal Recovery Amount**" with respect to any Payment Date is the sum of:

(a) the aggregate amount of Credit Event Net Losses for all Reversed Credit Event Reference Obligations for the related Reporting Period;

(b) subsequent recoveries on any Reference Obligation that became a Credit Event Reference Obligation on a prior Payment Date and with respect to which Net Liquidation Proceeds have already been determined;

(c) the aggregate amount of the Credit Event Net Gains of all Credit Event Reference Obligations for the related Reporting Period;

(d) the aggregate amount of Rep and Warranty Settlement Amounts for the Reporting Period for such Payment Date and Credit Event Reference Obligations; and

(e) the Projected Recovery Amount on the Termination Date.

The "**Rep and Warranty Settlement Coverage Amount**" with respect to each Payment Date and (1) any Reference Obligation that was included in an Origination Rep and Warranty Settlement and that became a Credit Event Reference Obligation in the related Reporting Period and (2) any Reference Obligation that became a Credit Event Reference Obligation during a previous Reporting Period and that was first included in an Origination Rep and Warranty Settlement during the related Reporting Period, is the sum of the Rep and Warranty Settlement Amounts for all Reference Obligations.

The "**Rep and Warranty Settlement Amount**" for each Reference Obligation that is part of an Origination Rep and Warranty Settlement (including any Reference Obligation that may previously have been removed from the Reference Pool due to a Credit Event), is the portion of the settlement amount determined to be attributable to such Reference Obligation. The determination will be made by Fannie Mae at or about the time of the settlement. After completion of an Origination Rep and Warranty Settlement that includes any Reference Obligations, Fannie Mae will engage an independent third party to conduct an annual review to validate that the Rep and Warranty Settlement Amount corresponding to each Reference Obligation matches Fannie Mae's records for such settlement.

"**Origination Rep and Warranty Settlement**" means any settlement relating to claims arising from breaches of origination/selling representations and warranties that Fannie Mae enters into with a loan seller or servicer in lieu of requiring such loan seller or servicer to repurchase a specified pool of mortgage loans that includes one or more Reference Obligations, whereby Fannie Mae has received the agreed-upon settlement proceeds from such loan seller or servicer.

For the avoidance of doubt, any settlement that Fannie Mae may enter into with a servicer in connection with a breach by such servicer of its servicing obligations to Fannie Mae with respect to Reference Obligations will not be included in any Origination Rep and Warranty Settlement. Moreover, a Reference Obligation subject to an Origination Rep and Warranty Settlement that is not a Credit Event Reference Obligation may be subsequently repurchased by the related loan seller or servicer due to certain breaches of representations and warranties, such as a breach of a representation or warranty relating to fraud or property title. Any amounts collected by Fannie Mae due to such subsequent repurchases will be allocated to the Reference Tranches as *Unscheduled Principal*.

Allocation of Supplemental Subordinate Reduction Amount and Supplemental Senior Increase Amount

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount, the Subordinate Reduction Amount and any Tranche Write-down Amounts and Tranche Write-up Amounts, the Supplemental Subordinate Reduction Amount, if any, for such Payment Date will be allocated to reduce the Class Notional Amount of each of the following Reference Tranches in the following order of priority, in each case until its Class Notional Amount is reduced to zero:

first, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts,

second, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

third, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts,

fourth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts, and

fifth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts.

Because the Notes correspond to the related Reference Tranches, any portion of the Supplemental Subordinate Reduction Amount allocated to the Reference Tranches will result in a corresponding reduction in the Class Principal Balance of the related Notes. Any such reduction in the Class Principal Balance of a Class of Exchangeable Notes will result in a corresponding reduction in the Class Principal Balance or Class Notional Amount, as applicable, of the related Class or Classes of RCR Notes.

Simultaneously, on each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount, the Subordinate Reduction Amount and any Tranche Write-down Amounts and Tranche Write-up Amounts, the Supplemental Senior Increase Amount, if any, for such Payment Date will be allocated to increase the Class Notional Amount of the Class 1A-H Reference Tranche.

Related Definitions

"Supplemental Subordinate Reduction Amount" means, for a Payment Date, the aggregate UPB of the Reference Obligations at the end of the related Reporting Period multiplied by the excess, if any, of (i) the Offered Reference Tranche Percentage for such Payment Date over (ii) 5.50%.

"Offered Reference Tranche Percentage" means, for a Payment Date, a fraction, expressed as a percentage, equal to the aggregate Class Notional Amount of the Class 1M-1, Class 1M-1H, Class 1M-2A, Class 1M-AH, Class 1M-2B, Class 1M-BH, Class 1M-2C, Class 1M-CH, Class 1B-1 and Class 1B-1H Reference Tranches (after allocation of the Senior Reduction Amount, the Subordinate Reduction Amount and any Tranche Write-down Amounts and Tranche Write-up Amounts for such Payment Date) divided by the aggregate UPB of the Reference Obligations at the end of the related Reporting Period.

"Supplemental Senior Increase Amount" means, for a Payment Date, an amount, equal to the Supplemental Subordinate Reduction Amount, if any, for such Payment Date, allocated to increase the Class Notional Amount of the Class 1A-H Reference Tranche as described above.

Allocation of Modification Loss Amount

On each Payment Date on or prior to the Termination Date, the following will be computed prior to the allocation of the Modification Loss Amount:

- the **"Preliminary Principal Loss Amount,"** which is equal to the Principal Loss Amount computed without giving effect to clause (d) of the definition of Principal Loss Amount;
- the **"Preliminary Tranche Write-down Amount,"** which is equal to the Tranche Write-down Amount computed using the Preliminary Principal Loss Amount instead of the Principal Loss Amount;
- the **"Preliminary Tranche Write-up Amount,"** which is equal to the Tranche Write-up Amount computed using the Preliminary Principal Loss Amount instead of the Principal Loss Amount; and
- the **"Preliminary Class Notional Amount,"** which is equal to the Class Notional Amount of a Reference Tranche immediately prior to such Payment Date after the application of the Preliminary Tranche Write-down Amount in accordance with the priorities set forth in the Allocation of Tranche Write-down Amount and after the application of the Preliminary Tranche Write-up Amount in accordance with the priorities set forth in the Allocation of Tranche Write-up Amount.

On each Payment Date on or prior to the Termination Date, the Modification Loss Amount, if any, for such Payment Date will be allocated in the following order of priority:

first, to the Class 1B-2H Reference Tranche, until the amount allocated to the Class 1B-2H Reference Tranche is equal to the Class 1B-2H Reference Tranche Interest Accrual Amount;

second, to the Class 1B-2H Reference Tranche, until the aggregate amount allocated to the Class 1B-2H Reference Tranche is equal to the Preliminary Class Notional Amount of the Class 1B-2H Reference Tranche for such Payment Date;

third, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class 1B-1 Reference Tranche is equal to the Class 1B-1 Notes Interest Accrual Amount;

fourth, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pro rata*, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class 1B-1 and Class 1B-1H Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class 1B-1 and Class 1B-1H Reference Tranches for such Payment Date;

fifth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class 1M-2C Reference Tranche is equal to the Class 1M-2C Notes Interest Accrual Amount;

sixth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class 1M-2B Reference Tranche is equal to the Class 1M-2B Notes Interest Accrual Amount;

seventh, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class 1M-2A Reference Tranche is equal to the Class 1M-2A Notes Interest Accrual Amount;

eighth, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pro rata*, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class 1M-2C and Class 1M-CH Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class 1M-2C and Class 1M-CH Reference Tranches for such Payment Date;

ninth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pro rata*, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class 1M-2B and Class 1M-BH Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class 1M-2B and Class 1M-BH Reference Tranches for such Payment Date;

tenth, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pro rata*, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class 1M-2A and Class 1M-AH Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class 1M-2A and Class 1M-AH Reference Tranches for such Payment Date;

eleventh, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class 1M-1 Reference Tranche is equal to the Class 1M-1 Notes Interest Accrual Amount; and

twelfth, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pro rata*, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class 1M-1 and Class 1M-1H Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class 1M-1 and Class 1M-1H Reference Tranches for such Payment Date.

Any amounts allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranches in the *eleventh*, *seventh*, *sixth*, *fifth* or *third* priority above will result in a corresponding reduction of the Interest Payment Amount of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). The Class 1B-2H Reference Tranche is assigned a class coupon solely for purposes of

calculations in connection with the allocation of Modification Loss Amounts to the Mezzanine and Junior Reference Tranches, and any amounts allocated to the Class 1B-2H Reference Tranche in the *first* priority above will not result in a corresponding reduction of the Interest Payment Amount of any Class of Notes.

Any amounts allocated to the Class 1B-2H, Class 1B-1, Class 1M-2C, Class 1M-2B, Class 1M-2A or Class 1M-1 Reference Tranches in the *second, fourth, eighth, ninth, tenth* or *twelfth* priority above will be included in the calculation of the Principal Loss Amount.

If any RCR Notes are held by Holders, any Modification Loss Amount that is allocable in the *third, fifth, sixth* or *seventh* priorities above on any Payment Date to the Exchangeable Notes will be allocated to reduce the Interest Payment Amount of the applicable RCR Notes in accordance with the exchange proportions applicable to the related Combination.

RCR NOTES

Exchangeable Notes may be exchanged, in whole or in part, for the related RCR Notes and vice versa at any time on or after the Initial Exchange Date. Schedule I hereto describes the characteristics of the Exchangeable Notes and RCR Notes and the available Combinations of those Notes, as well as the applicable exchange procedures and fees. For the avoidance of doubt, an investor that would otherwise become a Holder of Class 1M-2 or Class 1B-1 Notes on the Closing Date may specify, no later than 2:00 P.M. (New York City time) on the third Business Day prior to the Closing Date, any permissible combination of proportionate interests in other related RCR Notes or Exchangeable Notes for receipt by such investor on the Closing Date, in which case any exchange procedures and fees otherwise applicable to such exchange will be waived. The specific Classes of Exchangeable Notes and RCR Notes that are outstanding at any given time, and the outstanding Class Principal Balances or Class Notional Amounts of those Classes, will depend on payments on or write-ups or write-downs of those Classes and any exchanges that have occurred. Exchanges of Exchangeable Notes for RCR Notes, and vice versa, may occur repeatedly. RCR Notes receive interest payments from their related Exchangeable Notes at their applicable Class Coupons. If on the Maturity Date or any Payment Date a Class of RCR Notes that is entitled to principal is outstanding, all principal amounts that are payable by Fannie Mae on Exchangeable Notes that were exchanged for such RCR Notes will be allocated to, and payable on, such RCR Notes.

Holders of RCR Notes will be entitled to exercise all the voting or direction rights that are otherwise allocated to the related Exchangeable Notes; *provided, however*, that Holders of any outstanding RCR Notes (other than Interest Only RCR Notes) will be entitled to exercise their pro rata shares of 99% of the voting or direction rights that are otherwise allocated to the related Exchangeable Notes and Holders of any outstanding Interest Only RCR Notes will be entitled to exercise their pro rata shares of 1% of the voting or direction rights that are otherwise allocated to the related Exchangeable Notes; *provided, further*, that any Notes held by Fannie Mae will be disregarded for such purposes (unless at such time all outstanding Classes of Notes are held by Fannie Mae).

THE AGREEMENTS

The following summaries of certain provisions of the Transaction Documents do not purport to be complete and are subject to, and are qualified in their entirety by reference to, the Transaction Documents.

The Collateral Administration Agreement

General. Pursuant to the Collateral Administration Agreement, on each Remittance Date, Fannie Mae will pay to the Issuer, by deposit into the Note Distribution Account or otherwise, (a) the Transfer Amount for such Remittance Date (it being understood that the Trust Estate Yield for the related Payment Date will be deemed to satisfy, up to the amount of such Trust Estate Yield, Fannie Mae's Transfer Amount payment obligation for such Remittance Date) and (b) the Return Reimbursement Amount, if any, for such Remittance Date. The "**Trust Estate Yield**" means, for any Payment Date, the cash flow yield on the assets contributed by Fannie Mae and constituting part of the assets of the Issuer, including the IO Q-REMIC Interest and excluding the Subordinate Q-REMIC Interest and the Eligible Investments in the Cash Collateral Account, in respect of such Payment Date. In addition, on each Payment Date, the Issuer will pay to Fannie Mae, by deposit into an account specified by Fannie Mae under the Collateral Administration Agreement, an amount equal to the Return Amount for such Remittance Date. Any Return Amount payable by the Issuer to Fannie Mae on a Remittance Date will reduce amounts available to make any payments of principal to the Notes on such Payment Date.

Payment Obligations. The payment obligation of the Issuer to pay Return Amounts under the Collateral Administration Agreement is limited to amounts on deposit in the Cash Collateral Account. The obligations of Fannie Mae to pay Transfer Amounts is expected to be satisfied in part by amounts paid in respect of the IO Q-REMIC Interest. In the event that Fannie Mae fails to make a payment required under the Collateral Administration Agreement when due and fails to cure any such nonpayment for a period of 30 days after receipt of written notice, such failure will constitute an Event of Default under Indenture. See "*The Indenture — Events of Default*" below.

Conditions Precedent. The respective obligations of Fannie Mae and the Issuer to pay any amount due under the Collateral Administration Agreement will be subject to the following conditions precedent (other than in connection with any payments on the CAA Early Termination Date): (a) the monthly reference pool file for the related Payment Date has been delivered to the Indenture Trustee in accordance with the terms of the Indenture; (b) the CAA Termination Date has not occurred as of any prior Payment Date; and (c) Fannie Mae and the Issuer each has received a payment notification pursuant to the terms of the Collateral Administration Agreement.

Amendment. The Collateral Administration Agreement may be amended only by written instrument executed by the Issuer, Fannie Mae and the Indenture Trustee. No such amendment will be effective unless (a) the Issuer and the Indenture Trustee receive an opinion of counsel to the effect that such amendment will not, in the opinion of such counsel, adversely affect in any material respect the interests of the Holders at the time of such amendment, (b) the Issuer and the Indenture Trustee receive an opinion of nationally-recognized tax counsel to the effect that the amendment will not result in an Adverse REMIC Event and (c) the Rating Agency Condition (as defined below) is satisfied with respect to such amendment.

Termination. The Collateral Administration Agreement will terminate on the date (the "**CAA Termination Date**") that is the earliest of (i) the Payment Date in January 2040, (ii) the CAA Early Termination Date, (iii) the Payment Date related to the Reporting Period in which there occurs the final payment or other liquidation of the last Reference Obligation remaining in the Reference Pool or the disposition of any REO in respect thereof; and (iv) the Payment Date related to the Reporting Period in which there occurs the removal of the last Reference Obligation remaining in the Reference Pool or any REO in respect thereof.

Each of the following is a "**CAA Trigger Event**" under the Collateral Administration Agreement:

- (a) accounting, insurance or regulatory changes after the Closing Date that, in Fannie Mae's reasonable determination, have a material adverse effect on Fannie Mae;
- (b) legal, regulatory or accounting requirements or guidelines that, in Fannie Mae's reasonable determination, materially affect the financial position, accounting treatment or intended benefit with respect to Fannie Mae;
- (c) a requirement, in Fannie Mae's reasonable determination after consultation with external counsel (which will be a nationally recognized and reputable law firm), that Fannie Mae or any other transaction party must register as a "commodity pool operator" under the Commodity Exchange Act;
- (d) material impairment of Fannie Mae's rights under the Collateral Administration Agreement due to the amendment or modification of any Transaction Document; or
- (e) failure of the Issuer to make a required payment under the Collateral Administration Agreement, which failure continues unremedied for 30 days following notice of such failure.

Each of the following is a "**CAA Early Termination Event**" under the Collateral Administration Agreement:

- (a) final SEC determination that the Issuer must register as an investment company under the Investment Company Act;
- (b) acceleration of the maturity of the Notes under the Indenture; or
- (c) failure of Fannie Mae to make a required payment under the Collateral Administration Agreement, which failure continues unremedied for 30 days following notice of such failure.

Upon the occurrence of a CAA Trigger Event, Fannie Mae may, in its sole discretion, designate the Payment Date following such occurrence as the early termination date for the Collateral Administration Agreement by notice

to the Issuer and the Indenture Trustee. Upon the occurrence of a CAA Early Termination Event, the Payment Date following such occurrence will be the early termination date for the Collateral Administration Agreement. Any such early termination date is referred to as the "**CAA Early Termination Date**." The occurrence of the CAA Termination Date due to the occurrence of a CAA Early Termination Event will constitute an Event of Default under the Indenture.

The final payment obligations under the Collateral Administration Agreement will be due on the day prior to the CAA Termination Date. The performance of the Reference Pool during the period commencing at the end of the final Reporting Period and continuing until the CAA Termination Date will be disregarded under the Collateral Administration Agreement for purposes of calculating such final payment obligations.

The Indenture provides that if a CAA Early Termination Date is designated as a result of the occurrence of a CAA Trigger Event, the Notes will be redeemed on such CAA Early Termination Date. Holders of Notes purchased at a premium or Holders of Notes that are entitled to payments of interest only may not recover their investments in any such Notes if a CAA Early Termination Date occurs. See "*Description of the Notes —Maturity Date and Early Redemption Date*".

The Capital Contribution Agreement

General. On each Remittance Date, Fannie Mae, as capital contribution provider under the Capital Contribution Agreement (the "**Capital Contribution Provider**"), or an assignee of Fannie Mae under such agreement (the "**Capital Contribution Assignee**"), will pay to the Issuer, by deposit into the Note Distribution Account or otherwise, the Capital Contribution Amount for such Remittance Date. Fannie Mae at its option may assign its obligations to pay Capital Contribution Amounts to a Capital Contribution Assignee; *provided*, that any such assignment is subject to the satisfaction of either of the following conditions with respect to each engaged NRSRO:

- (a) the NRSRO has notified the Administrator, the Issuer and the Indenture Trustee that the proposed action or request will not result in a downgrade or withdrawal of its then current rating on any of the Notes; or
- (b) Fannie Mae has given ten Business Days' prior notice to the NRSRO and the NRSRO has not notified the Administrator, the Issuer and the Indenture Trustee before the end of the ten-day period that the action will result in a downgrade or withdrawal of its then current rating on any of the Notes (the satisfaction of either such condition, in accordance with the then-current policies of the applicable engaged NRSRO, the "**Rating Agency Condition**").

Payment Obligations. The payment obligations of the Capital Contribution Provider (or Capital Contribution Assignee, if any) to pay Capital Contribution Amounts will be contractual obligations thereof from its own funds. In the event that Fannie Mae (or the Capital Contribution Assignee, if any) fails to make a payment required under the Capital Contribution Agreement when due and fails to cure any such nonpayment for a period of 30 days after receipt of written notice, such failure will constitute an Event of Default under the Indenture. See "*The Indenture — Events of Default*" below.

Conditions Precedent. The obligations of Fannie Mae (or the Capital Contribution Assignee, if any) to pay any Capital Contribution Amount due under the Capital Contribution Agreement will be subject to the following conditions precedent (other than in connection with any payments on the CAA Early Termination Date): (a) the CAA Termination Date has not occurred as of any prior Payment Date; and (b) Fannie Mae (or the Capital Contribution Assignee, if any) has received a payment notification pursuant to the terms of the Capital Contribution Agreement.

Amendment. The Capital Contribution Agreement may be amended only by written instrument executed by the Issuer, the Capital Contribution Provider and the Indenture Trustee. No such amendment will be effective unless (a) the Issuer and the Indenture Trustee receive an opinion of counsel to the effect that such amendment will not, in the opinion of such counsel, adversely affect in any material respect the interests of the Holders at the time of such amendment, (b) the Issuer and the Indenture Trustee receive an opinion of nationally-recognized tax counsel to the effect that the amendment will not result in an Adverse REMIC Event and (c) the Rating Agency Condition is satisfied with respect to such amendment.

Termination. The Capital Contribution Agreement will terminate on the CAA Termination Date. Any termination of the Collateral Administration Agreement will result in the concurrent termination of the Capital Contribution Agreement, and vice versa.

The Indenture provides that if a CAA Early Termination Date is designated as a result of the occurrence of a CAA Trigger Event, the Notes will be redeemed on such CAA Early Termination Date. Holders of Notes purchased at a premium or Holders of Notes that are entitled to payments of interest only may not recover their investments in any such Notes if a CAA Early Termination Date occurs. See "*Description of the Notes —Maturity Date and Early Redemption Date*".

The Indenture

General. The Notes will be issued pursuant to the Indenture, to be dated the Closing Date (the "**Indenture**"), among the Issuer, Wells Fargo Bank, N.A., as Indenture Trustee, Exchange Administrator and Custodian, and Fannie Mae, as Administrator. Pursuant to the Indenture, the Issuer will grant to the Indenture Trustee for the benefit of the Secured Parties, as their respective interests may appear, all of the Issuer's right, title and interest in, whether now owned or existing, or hereafter acquired or arising, the Collateral. The "**Designated Q-REMIC Interests**" will consist of (i) one or more interest only REMIC regular interests related to certain interest cash flows from the Reference Obligations and certain of the Uncovered Q-REMIC Loans (the "**IO Q-REMIC Interest**") and (ii) one or more subordinate REMIC regular interests related to the Reference Obligations (the "**Subordinate Q-REMIC Interest**"), in each case previously issued by a Fannie Mae trust pursuant to a master trust agreement dated as of May 1, 2018. On the Closing Date, Fannie Mae will contribute the Designated Q-REMIC Interests to the Issuer, and the Issuer will pledge the Designated Q-REMIC Interests as Collateral under the Indenture, as described above. The Custodian will act as securities intermediary for the Designated Q-REMIC Interests, the Cash Collateral Account and the Eligible Investments in the Cash Collateral Account, as described below under "*The Securities Account Control Agreement*."

Pursuant to the Indenture, the Holders of each Class of Notes and the Issuer will agree, for the benefit of Fannie Mae, that the rights of each Class of Notes and the Issuer's rights in and to the Collateral will be subordinate and junior to the rights of Fannie Mae with respect to payments to be made to Fannie Mae to the extent and in the manner described in this Offering Memorandum. Fannie Mae and the Noteholders are express and intended third-party beneficiaries of the Indenture.

Under the Indenture, the Indenture Trustee will be engaged by the Issuer to perform certain reporting, calculation, payment and other administrative functions with respect to the Notes as described below and the Exchange Administrator will be engaged by the Issuer to perform certain administrative functions with respect to exchanging Exchangeable Notes for RCR Notes and vice versa.

The Indenture Trustee will have no liability with respect to any act or failure to act by the Issuer under the Collateral Administration Agreement or the Capital Contribution Agreement (provided that this sentence will not limit or relieve the Indenture Trustee from any responsibility it may have under the Indenture upon the occurrence of and during the continuance of any "Event of Default" under the Indenture). Moreover, the assignment made of the Collateral is executed as collateral security under the Indenture, and the execution and delivery of the Collateral to the Indenture Trustee for the benefit of Secured Parties will not in any way impair or diminish the obligations of the Issuer under the Collateral Administration Agreement or the Capital Contribution Agreement, nor will any of the obligations of the Issuer contained therein be imposed on the Indenture Trustee or on the Secured Parties.

Upon the occurrence of any Event of Default, and in addition to any other rights available under the Indenture or any other instruments included in the Collateral held for the benefit and security of the Noteholders or otherwise available at law or in equity, the Indenture Trustee will have all rights and remedies of a secured party on default under the laws of the State of New York and other applicable law to enforce the assignments and security interests contained in the Indenture. Also see "*Rights Upon Event of Default*" below.

Duties of Indenture Trustee. The Indenture Trustee will, among other duties set forth in the Indenture, (i) authenticate and deliver the Notes, (ii) serve as registrar for purposes of registering the Notes and in connection with transfers and exchanges of the Notes, (iii) calculate the principal and interest payments due on the Notes on each Payment Date (including the determination of One-Month LIBOR and the Class Coupons), (iv) pay or cause to be paid, on behalf of the Issuer, the amounts due in respect of the Notes and (v) prepare each Payment Date Statement.

Further, the Indenture Trustee will hold the Notes as custodian for DTC (for both U.S. and offshore depositories) pursuant to its agreement with DTC.

Note Distribution Account. In accordance with the Indenture, the Indenture Trustee will be required to establish and maintain the Note Distribution Account, as described in "*Description of the Notes — Payments*" in this Offering Memorandum.

On each Remittance Date, the Indenture Trustee will transfer from the Cash Collateral Account amounts in respect of principal and interest payments due on the Notes for the related Payment Date, and Fannie Mae and the Capital Contribution Provider (or Capital Contribution Assignee, if any) will make payment of any amounts required to be paid in respect of Transfer Amounts, Return Reimbursement Amounts and Capital Contribution Amounts, as applicable. The Indenture Trustee will retain such amounts on deposit in the Note Distribution Account, for the benefit of the Holders of the Notes, until the related Payment Date.

On each Remittance Date, the Indenture Trustee will withdraw from the Cash Collateral Account and distribute to Fannie Mae the Return Amount as described in "*The Agreements — The Collateral Administration Agreement*" and will thereafter pay the Noteholders in accordance with the provisions set forth under "*Description of the Notes — Payments*" in this Offering Memorandum.

Cash Collateral Account. The Indenture will require that the Custodian cause to be established, at such time as may be necessary for the Custodian to comply with and carry out the terms of the Indenture, the "**Cash Collateral Account**" in the name of the Issuer and subject to the lien of the Indenture Trustee on behalf of the Secured Parties under the Indenture. On the Closing Date, the Issuer will deliver, or cause to be delivered, the proceeds from the issuance of the Notes to the Custodian in accordance with the Securities Account Control Agreement. If required, the Custodian will establish sub-accounts of the Cash Collateral Account into which the Custodian will deposit or credit the various types of Collateral. Cash held in the Cash Collateral Account will be invested only in Eligible Investments. The Investment Agent will immediately invest such proceeds in Eligible Investments and will cause such Eligible Investments to be credited by the Custodian to the Cash Collateral Account. The Collateral in the Cash Collateral Account and any rights or proceeds derived therefrom are subject to the liens and other security interests in favor of the Indenture Trustee on behalf of the Noteholders as set forth in the Indenture, and the rights of the Issuer in respect of the Collateral are also subject to such liens and such other security interests as set forth in the Indenture.

"**Eligible Investments**" means each of the following investments, provided such investment is scheduled to mature on or before the immediately following Remittance Date, and all cash proceeds thereof: (a) obligations issued or fully guaranteed by the U.S. government; (b) repurchase obligations involving any security that is an obligation of, or fully guaranteed by, the U.S. government or any agency or instrumentality thereof, and entered into with a depository institution or trust company (as principal) subject to supervision by U.S. federal or state banking or depository institution authorities, provided that such institution has a short-term issuer rating of 'A-1+', 'P1', 'F1+' or equivalent from an NRSRO (as defined herein), and further provided that if Fitch Ratings, Inc. has been engaged to provide a rating on the Rated Notes, such institution must have a short-term issuer rating of 'F1+', and further provided that if S&P Global Ratings, a Standard & Poor's Financial Services LLC business has been engaged to provide a rating on the Rated Notes, such institution must have a short-term issuer rating of 'A-1+'; and (c) U.S. government money market funds that are designed to meet the dual objective of preservation of capital and timely liquidity; *provided, however*, that in the event an investment fails to qualify under (a), (b) or (c) above, the proceeds of the sale of such investment will be deemed to be liquidation proceeds of an Eligible Investment for all purposes of the Indenture provided such liquidation proceeds are promptly reinvested in Eligible Investments that qualify in accordance with one of the foregoing. With respect to money market funds, the maturity date will be determined under Rule 2a-7 under the Investment Company Act.

The Investment Agent will direct the Custodian to invest funds in the Cash Collateral Account in Eligible Investments in accordance with the definition of Eligible Investments and the terms of the Investment Agency Agreement for the period from each Remittance Date to the related Payment Date, which investments will mature not later than the related Payment Date and must qualify as "cash flow investments" within the meaning of Treasury Regulation section 1.860G-2(g)(1). All such Eligible Investments will be made in the name of the Indenture Trustee for the benefit of the Secured Parties.

Investment earnings on Eligible Investment for the related Investment Accrual Period will be deposited in the Note Distribution Account, up to the amount of the LIBOR Interest Component for such Payment Date, and any

remaining investment earnings on Eligible Investments during such period will thereafter be retained in the Cash Collateral Account until the Termination Date and will at no time be available for payment to Noteholders.

The "**LIBOR Interest Component**" means, for a Payment Date, an amount equal to the product of (i) One-Month LIBOR for the related Note Accrual Period, (ii) the aggregate Class Principal Balance of the Classes of Notes outstanding immediately prior to such Payment Date and (iii) a fraction, the numerator of which is the actual number of days in the related Note Accrual Period and the denominator of which is 360.

Upon receipt of the Payment Date Statement from the Indenture Trustee setting forth the amount of payments due on the applicable Payment Date, the Investment Agent will direct the Custodian to liquidate Collateral in the Cash Collateral Account to the extent necessary for the Issuer to pay any Return Amounts to Fannie Mae and to pay principal on the Notes as required under the Indenture, and deposit the amount payable as principal, together with the interest earned on the Collateral during the related Note Accrual Period, in the Note Distribution Account on the Business Day prior to the Payment Date.

Upon instruction from the Indenture Trustee to liquidate Collateral in connection with an acceleration and early redemption of the Notes, the Investment Agent will arrange with the Indenture Trustee for the sale of the Collateral and the deposit of the proceeds with the interest earned on the Collateral into the Note Distribution Account on the Business Day prior to the Early Redemption Date.

Pursuant to the Indenture, the Custodian will make available to the Indenture Trustee and Fannie Mae (a) a monthly Cash Collateral Account statement within two (2) days after the end of a Reporting Period and (b) a final Cash Collateral Account statement within two (2) days after the Custodian has transferred all of the Collateral from the Cash Collateral Account to the Note Distribution Account. Such statements will reflect transactions with respect to the Collateral during each Reporting Period and the balance and type of holdings in the Cash Collateral Account as of the end of the related Reporting Period.

Payment Date Statement. The Indenture Trustee will prepare a report each month (each such report, a "**Payment Date Statement**") setting forth certain information relating to the Reference Pool, the Notes, the Reference Tranches and the hypothetical structure described in this Offering Memorandum, including:

- (i) the Class Principal Balance of each Class of Notes and the percentage of the initial Class Principal Balance of each Class of Notes on the first (1st) day of the immediately preceding Note Accrual Period, the amount of principal payments to be made on the Notes of each Class on such Payment Date and the Class Principal Balance of each Class of Notes and the percentage of the initial Class Principal Balance of each Class of Notes after giving effect to any payments of principal to be made on such Payment Date and the allocation of any Tranche Write-down Amounts and Tranche Write-up Amounts to such Class of Notes on such Payment Date;
- (ii) One-Month LIBOR for the Note Accrual Period preceding the related Payment Date;
- (iii) the Interest Payment Amount for each outstanding Class of Notes for the related Payment Date;
- (iv) the amount of principal required to be paid for each outstanding Class of Notes for the related Payment Date and the Senior Reduction Amount, the Subordinate Reduction Amount, the Supplemental Subordinate Reduction Amount, the Senior Percentage and the Subordinate Percentage for the related Payment Date;
- (v) the aggregate Tranche Write-down Amounts, Tranche Write-up Amounts and Modification Loss Amounts previously allocated to each Class of Notes and each Reference Tranche pursuant to the hypothetical structure and the Tranche Write-down Amounts, Tranche Write-up Amounts and Modification Loss Amounts to be allocated to each Class of Notes on the related Payment Date;
- (vi) the cumulative number (to date) and unpaid principal balance of the Reference Obligations that have become Credit Event Reference Obligations or with respect to which Modification Events have occurred, the number and unpaid principal balance of the Reference Obligations that have become Credit Event Reference Obligations or with respect to which Modification Events have occurred during the related Reporting Period;

- (vii) the number and aggregate principal amounts of Reference Obligations (A) delinquent (1) 30 to 59 days, (2) 60 to 89 days, (3) 90 to 119 days, (4) 120 to 149 days, (5) 150 to 179 days and (6) 180 or more days, as of the close of business on the last day of the second (2nd) calendar month preceding such Payment Date, in the aggregate with respect to the Reference Obligations, (B) that became Credit Event Reference Obligations (and identification under which clause of the definition of "Credit Event" it became Credit Event Reference Obligation), (C) that were removed from the Reference Pool as a result of a defect or breach of a representation and warranty, and (D) which have been paid in full;
- (viii) the percentage of the Reference Obligations outstanding (equal to the unpaid principal amount of the Reference Obligations divided by the Cut-off Date Balance) as of the current Reporting Period;
- (ix) the Reversed Credit Event Amount, both cumulative and for the current Reporting Period;
- (x) the amount of Scheduled Principal and Unscheduled Principal, both cumulative and for the current Reporting Period;
- (xi) the Excess Credit Event Amount for the current Reporting Period;
- (xii) the Rep and Warranty Settlement Coverage Amount and the related Rep and Warranty Settlement Amount for each Origination Rep and Warranty Settlement for the current Reporting Period;
- (xiii) the amount of the Transfer Amount payable by Fannie Mae for such Payment Date;
- (xiv) the amount of any Return Reimbursement Amount payable by Fannie Mae for such Payment Date;
- (xv) the amount of any Return Amount payable by the Issuer for such Payment Date;
- (xvi) the amount of any Capital Contribution Amounts payable by Fannie Mae for such Payment Date;
- (xvii) the amount of any Return Amount for such Payment Date;
- (xviii) the occurrence of a CAA Termination Event;
- (xix) the Offered Reference Tranche Percentage for such Payment Date;
- (xx) the amounts payable on the IO Q-REMIC Interest for such Payment Date;
- (xxi) the amounts for such Payment Date representing the portion of interest that is received in respect of the REMIC regular interest components of the Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes;
- (xxii) the market value of any Eligible Investments in the Cash Collateral Account (other than those Eligible Investments that were reinvested) both before and after giving effect to payments of principal to Noteholders on such Payment Date as well as liquidation proceeds of any redemptions of Eligible Investments (other than those Eligible Investments in which investment income was reinvested) in respect of such Payment Date;
- (xxiii) investment income collected during the prior calendar month in the Cash Collateral Account; provided that with respect to the final Payment Date, such earnings will be measured based on the prior calendar month and the then-current calendar month;
- (xxiv) any principal gains or principal losses on Eligible Investments in the Cash Collateral Account realized during the prior calendar month; provided that with respect to the final Payment Date, such earnings will be measured based on the prior calendar month and the then-current calendar month;
- (xxv) notification from Fannie Mae of its ongoing compliance with the terms of the European Risk Retention Letter; and

- (xxvi) notification from Fannie Mae that it has determined that Fannie Mae or any other transaction party must register as a "commodity pool operator" or that the Issuer is a "commodity pool" under the Commodity Exchange Act, together with Fannie Mae's proposed course of action with respect to such determination.

The Indenture Trustee will make the Payment Date Statement (and, at its option, any additional files containing the same information in an alternative format) available each month to Noteholders and any other party that provides appropriate certification in the form acceptable to the Indenture Trustee (which may be submitted electronically via the Indenture Trustee's Internet site) and to any designee of Fannie Mae's via the Indenture Trustee's Internet site. The Indenture Trustee's Internet site will initially be located at www.ctslink.com. Assistance in using the Internet site can be obtained by calling the Indenture Trustee's customer service desk at (866) 846-4526. Parties that are unable to use the above distribution options are entitled to have a paper copy mailed to them via first class mail by calling the customer service desk and indicating such. The Indenture Trustee will have the right to change the way the Indenture Trustee's Payment Date Statement is distributed in order to make such distribution more convenient or more accessible to the above parties. The Indenture Trustee is required to provide timely and adequate notification to all above parties regarding any such changes. The Indenture Trustee will not be liable for the dissemination of information in accordance with the Indenture.

The Indenture Trustee will also be entitled to rely on but will not be responsible for the content or accuracy of any information provided by third parties for purposes of preparing the Payment Date Statement and may affix thereto any disclaimer it deems appropriate in its reasonable discretion (without suggesting liability on the part of any other party hereto).

Various Matters Regarding the Indenture Trustee. The Indenture contains provisions for the indemnification of the Indenture Trustee, Exchange Administrator and Custodian by Fannie Mae, as Administrator, for any claim, loss, liability, damage, cost or expense incurred (except any such claim, loss, liability, damage, cost or expense caused by the negligence or willful misconduct or bad faith of any such indemnified party, in each case, as determined by a court of competent jurisdiction pursuant to final order or verdict not subject to appeal), including without limitation any legal fees and expenses and court costs and any extraordinary or unanticipated expense, incurred or expended in connection with (i) investigating, preparing for, defending itself or themselves against or prosecuting for itself or themselves any legal proceeding, whether pending or threatened, related to the Indenture or the Notes (including without limitation the initial offering, any secondary trading and any transfer and exchange of the Notes), (ii) pursuing enforcement (including without limitation by means of any action, claim, or suit brought by the Indenture Trustee, Exchange Administrator and Custodian for such purpose) of any indemnification or other obligation of the Administrator (with the indemnification afforded under this clause (ii) to include, without limitation, any legal fees, costs and expenses incurred by the Indenture Trustee, Exchange Administrator and Custodian in connection therewith) and (iii) the performance of any and all of its or their duties or responsibilities and the exercise or lack of exercise of any and all of its or their powers, rights or privileges thereunder, including without limitation (A) complying with any new or updated law or regulation directly related to the performance by it of its obligations under the Indenture (with such costs to be allocated on a reasonable basis among all affected transactions) and (B) addressing any bankruptcy-related matters arising in connection with the transaction. The Indenture also contains provisions for the indemnification by the Indenture Trustee of the Administrator and the holder of a Residual Certificate from certain failures or negligent performance under the Indenture with respect to certain tax matters.

The Indenture Trustee may resign by giving the Issuer at least 60 days' written notice to such effect. The Indenture Trustee may be removed at any time by Act of the Majority Noteholders, delivered to the Indenture Trustee and to the Issuer. No resignation or removal of the Indenture Trustee and no appointment of a successor Indenture Trustee will become effective until the acceptance of appointment by a successor indenture trustee.

"Majority Noteholders" means the Holders of at least a majority of the aggregate Class Principal Balance of the outstanding Classes of Notes (without giving effect to exchanges of Exchangeable Notes for RCR Notes); provided, however, that any Notes held by Fannie Mae will be disregarded for such purposes (unless at such time all outstanding Classes of Notes are held by Fannie Mae).

The Indenture will generally provide that none of the Indenture Trustee, the Exchange Administrator and the Custodian will be liable with respect to any action it takes or omits to take in good faith and reasonably believed by it to be authorized or within the discretion or rights or powers conferred upon it by the Indenture, or for errors in judgment made in good faith. In addition, the Indenture will provide that if an "Event of Default" under the Indenture occurs and is continuing, the Indenture Trustee at the direction of the Majority Noteholders will proceed

to protect and enforce its rights and the rights of the Noteholders, or to enforce any other proper remedy or legal or equitable right vested in the Indenture Trustee by the Indenture or by law, each in accordance with the provisions of the Indenture; *provided, however*, that no such proceedings may be instituted with respect to the Eligible Investments or any proceeds thereof unless the Indenture Trustee ceases to have a valid and enforceable security interest in the Collateral, or such security interest proves not to have been valid or enforceable when granted or purported to have been granted; and *provided, further*, that the Indenture Trustee will have no duty or obligation to take such action unless the Majority Noteholders offer indemnification satisfactory to the Indenture Trustee.

Any person into which the Indenture Trustee may be merged or consolidated, or any person resulting from any merger or consolidation to which the Indenture Trustee is a party, or any person succeeding to the business of the Indenture Trustee will be the successor of the Indenture Trustee under the Indenture without further action on its part.

Exchange Administration. Under the Indenture, the Exchange Administrator will be engaged by the Issuer to perform certain administrative functions with respect to exchanging Exchangeable Notes for RCR Notes and vice versa. The Exchange Administrator will, among other duties set forth in the Indenture, administer all exchanges of Exchangeable Notes for RCR Notes and vice versa, which will include receiving notices of requests for such exchanges from Noteholders, accepting the Notes to be exchanged, and giving notice to the Indenture Trustee of all such exchanges. The Exchange Administrator will notify the Indenture Trustee with respect to any exchanges of Exchangeable Notes for RCR Notes (and vice versa) at the time of such exchange, and the Indenture Trustee will make all subsequent payments in accordance with such notice, unless notified of a subsequent exchange by the Exchange Administrator.

Events of Default. An "**Event of Default**" under the Indenture means, with respect to the Notes will consist of any one of the following cases:

- (i) any failure by the Issuer to pay to Holders of the Notes any required interest or principal payment that continues unremedied for 30 days;
- (ii) any failure by the Issuer to pay the then-outstanding Class Principal Balance of any Note on its Maturity Date, to the extent payable under the Indenture;
- (iii) any failure by the Issuer to perform in any material respect any other obligation under the Indenture, which failure continues unremedied for 60 days after the receipt of notice of such failure by the Indenture Trustee from the Holders of at least 25% of the aggregate Class Principal Balance of the outstanding Classes of Notes (without giving effect to exchanges of Exchangeable Notes for RCR Notes);
- (iv) a court having jurisdiction in the premises will enter a decree or order for relief in respect of Issuer in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or appoint a receiver, liquidator, assignee, custodian, or sequestrator (or other similar official) of the Issuer or for all or substantially all of its property, or order the winding up or liquidation of its affairs, and such decree or order will remain unstayed and in effect for a period of 60 consecutive days;
- (v) the Issuer will commence a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or will consent to the entry of an order for relief in an involuntary case under any such law, or will consent to the appointment of or taking possession by a receiver, liquidator, assignee, trustee, custodian, or sequestrator (or other similar official) of the Issuer or any substantial part of its property, or will make any general assignment for the benefit of creditors, or will fail generally to pay its debts as they become due;
- (vi) Indenture Trustee ceases to have a valid and enforceable first-priority security interest in the Collateral, or such security interest proves not to have been valid or enforceable when granted or purported to have been granted;
- (vii) it becomes unlawful for the Issuer to perform or comply with any of its material obligations under the Notes, the Indenture or any related document to which it is a party;

- (viii) the occurrence of the CAA Early Termination Date as a result of the occurrence of a CAA Early Termination Event; or
- (ix) Fannie Mae (or the Capital Contribution Assignee, if any) fails to make payment of the Capital Contribution Amount for a Remittance Date pursuant to the Capital Contribution Agreement, which failure continues unremedied for 30 days following receipt of written notice of such failure.

Holders of RCR Notes will be entitled to exercise all the voting or direction rights that are otherwise allocated to the related Exchangeable Notes, subject to the limitations set forth in the Indenture.

Rights upon Event of Default. If an Event of Default set forth in clauses (i) through (iii) of the definition thereof will have occurred and be continuing, and the Indenture Trustee (at the direction of the Majority Noteholders) or the Majority Noteholders have declared the Notes due and payable and such declaration and the consequences of such "Event of Default" and acceleration have not been rescinded and annulled, or if an Event of Default set forth in clauses (iv) through (ix) of the definition thereof will have occurred, the Issuer agrees that the Indenture Trustee will, upon direction of the Majority Noteholders, to the extent permitted by applicable law, exercise one or more of the following rights, privileges and remedies:

- (i) institute proceedings for the collection of all amounts then payable on the Notes or otherwise payable under the Indenture, whether by declaration or otherwise, enforce any judgment obtained, and collect from the Collateral any monies adjudged due;
- (ii) exercise any remedies of a secured party under the New York Uniform Commercial Code (as amended, the "UCC") and take any other appropriate action to protect and enforce the rights and remedies of the Noteholders under the Indenture; and
- (iii) exercise any other rights and remedies that may be available at law or in equity.

In addition, if an Event of Default occurs and is occurring under the Indenture, and the Notes have been declared due and payable and such declaration and the consequences of such Event of Default and acceleration have not been rescinded or annulled, the Majority Noteholders may direct the Indenture Trustee to (i) liquidate all Collateral (other than Collateral which is held in the form of cash) held in the Cash Collateral Account into cash, (ii) if entitled to do so under the Collateral Administration Agreement, give notice of a CAA Early Termination Event under the Collateral Administration Agreement to Fannie Mae (if the Collateral Administration Agreement has not yet terminated), (iii) demand payment from Fannie Mae of any amounts due under the Collateral Administration Agreement, (iv) demand payment from the Capital Contribution Provider (or Capital Contribution Assignee, if any) of any amounts due under the Capital Contribution Agreement and (v) distribute from the Note Distribution Account funds in the amounts and priorities as described in the Indenture.

Limitation on Suits. No Noteholder will have any right to institute any proceedings, judicial or otherwise, with respect to the Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless: (a) such Noteholder has previously given written notice to the Indenture Trustee of a continuing "Event of Default" under the Indenture; (b) except as otherwise provided in the Indenture, the Majority Noteholders will have made written request of the Indenture Trustee to institute proceedings in respect of such "Event of Default" in its own name as Indenture Trustee hereunder and such Holders have offered to the Indenture Trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred in compliance with such request; (c) the Indenture Trustee for 30 days after its receipt of such notice, request and offer of indemnity set forth in clause (b) above has failed to institute any such proceeding; and (d) no direction inconsistent with such written request has been given to the Indenture Trustee during such 30-day period by the Majority Noteholders. No Noteholders will have any right in any manner whatsoever by virtue of, or by availing itself of, any provision of the Indenture to affect, disturb or prejudice the rights of any other Noteholders or to obtain or to seek to obtain priority or preference over any other Noteholders or to enforce any right under the Indenture, except as and in the manner provided in the Indenture.

No Petition. No Noteholder will be permitted to commence any action, suit or proceeding under the Bankruptcy Code against the Issuer until the date that is one year and two days after the first date that all the Notes will have been paid in full.

Satisfaction and Discharge. The Indenture will cease to be of further effect with respect to the Notes whenever the following conditions will have been satisfied with respect to the Notes:

- (i) delivery of the Notes to the Indenture Trustee (other than (A) Notes that have been destroyed, lost, stolen or mutilated and surrendered to the Indenture Trustee, and that have been replaced or paid as required by the Indenture or in accordance with the Trust Agreement, and (B) Notes for whose payment money has theretofore been deposited in trust and thereafter repaid to the Issuer) for cancellation as provided in the Indenture; or
- (ii) all Notes outstanding have become due and payable, and the Issuer has deposited or caused to be deposited with the Indenture Trustee, in trust for such purpose, an amount in immediately available funds sufficient to pay and discharge the entire outstanding Class Principal Balance of such Notes, together with accrued interest to the date on which such amounts are paid;
- (iii) the Issuer has paid or caused to be paid all other sums payable under the Indenture by the Issuer with respect to the Notes or otherwise;
- (iv) to the extent of funds on deposit in the Cash Collateral Account, the Issuer has paid or caused to be paid all sums payable under the Indenture by the Issuer to Fannie Mae; and
- (v) the Issuer has delivered to the Indenture Trustee an opinion of counsel stating that all conditions precedent herein provided for the satisfaction and discharge of the Indenture with respect to the Notes have been complied with.

Upon satisfaction of these conditions, the Indenture and the lien, rights and interests created thereby will cease to be of further effect with respect to the Notes, and the Indenture Trustee and each co-indenture trustee and separate indenture trustee, if any, then acting as such under the Indenture will, at the expense of the Issuer, authorize, execute, and deliver all such instruments and documents as may be necessary to acknowledge the satisfaction and discharge of the Indenture and will pay, or will assign or transfer and deliver, to the Issuer, all cash, securities and other property held by it as part of the Collateral remaining after satisfaction of the conditions set forth in clauses (i) or (ii) above, as applicable.

Supplemental Indentures. Without the consent of any Noteholders, the Issuer and the Indenture Trustee, at any time and from time to time, may enter into one or more supplemental indentures (i) to cure any ambiguity, to correct or supplement any defective provision or to make any other provision with respect to matters or questions arising under the Indenture or the terms of any Note that are not inconsistent with any other provision of the Indenture or the Note if the amendment does not materially and adversely affect any Holder; (ii) to conform the terms of the Indenture to the terms of this Offering Memorandum; (iii) to add to the covenants of the Issuer for the benefit of the Holders or surrender any right or power conferred upon the Issuer; (iv) to conform the terms of an issue of Notes or cure any ambiguity or discrepancy resulting from any changes in the book-entry rules or any regulation or document that are applicable to book-entry securities of the Issuer; or (v) in any other manner that the Administrator may determine and that will not, in the opinion of the Administrator, adversely affect in any material respect the interests of Holders or Beneficial Owners at the time of such modification, amendment or supplement.

In addition, with the written consent of the Majority Noteholders excluding any such Notes owned by the Trustor, and with the written consent of the Indenture Trustee (which consent will not be unreasonably withheld, conditioned or delayed) the Administrator may, from time to time and at any time, modify, amend or supplement the terms of the Notes for the purpose of adding any provisions to or changing in any manner or eliminating any provisions of such Notes or modifying in any manner the rights of the Holders; *provided, however*, that no such modification, amendment or supplement may, without the written consent or affirmative vote of each Holder of an affected Note: (A) change the Maturity Date or any monthly Payment Date of such Note; (B) materially modify the redemption or repayment provisions, if any, relating to the redemption or repayment price of, or any redemption or repayment date or period for, such Note; (C) reduce the Class Principal Balance or Class Notional Amount or any Class of Notes (other than as provided for in the Indenture), delay the principal payment of (other than as provided for in the Indenture), or materially modify the rate of interest or the calculation of the rate of interest on, such Note; or (D) reduce the percentage of Holders whose consent or affirmative vote is necessary to modify, amend or supplement the terms of the Notes.

The Indenture Trustee and the Delaware Trustee will be entitled to receive an opinion of counsel that each supplemental indenture is authorized or permitted under the Indenture, that all conditions precedent to such supplemental indenture have been met and that such supplemental indenture will not cause an Adverse REMIC Event.

No consent of an NRSRO will be required in connection with the execution of any supplemental indenture and there is no requirement that Fannie Mae receives confirmation from each engaged NRSRO that the ratings on the applicable Notes will not be downgraded or withdrawn subsequent thereto. However, Fannie Mae is required to give prior written notice to each NRSRO of any supplemental indenture and promptly after the execution of any such supplemental indenture, the Indenture Trustee will mail to each NRSRO a copy of the executed supplemental indenture.

In addition, for so long as the Collateral Administration Agreement remains outstanding, no supplemental indenture will amend or modify any provision under the Indenture in any manner without the prior written consent of Fannie Mae, which consent may not be unreasonably withheld or delayed. All costs incurred by Fannie Mae in connection with any supplemental indenture and the foregoing consent rights will be borne solely by Fannie Mae.

Governing Law. The Indenture and all questions relating to its validity, interpretation, performance and enforcement, will be governed by and construed, interpreted and enforced in accordance with the Laws of the State of New York, notwithstanding any New York or other choice of law rules to the contrary.

The Investment Agency Agreement

On the Closing Date, the Issuer will enter into the Investment Agency Agreement with the Investment Agent and the Administrator. Pursuant to the Investment Agency Agreement, the Issuer will appoint the Investment Agent for purposes of investing the Collateral comprised of cash and Eligible Investments in the Cash Collateral Account. The Investment Agency Agreement will set forth investment guidelines and will specify the Eligible Investments. The Administrator will pay the Investment Agent any applicable amounts for its services under the Investment Agency Agreement.

The Securities Account Control Agreement

On the Closing Date, the Issuer will enter into the Securities Account Control Agreement with the Custodian and the Indenture Trustee. Pursuant to the Securities Account Control Agreement, the Issuer will appoint the Custodian as the custodian to hold all Eligible Investments in the Cash Collateral Account and to act as securities intermediary with respect to the Designated Q-REMIC Interests.

Pursuant to the Securities Account Control Agreement, the Cash Collateral Account will be a "securities account" (within the meaning of Section 8-501(a) of the UCC and Article 1(1)(b) of the Hague Convention on the Law Applicable to Certain Rights in Respect of Securities Held with an Intermediary (the "**Hague Securities Convention**")) in respect of which the Custodian is a "securities intermediary" (within the meaning of Section 8-102(a)(14) of the UCC) and an "intermediary" (within the meaning of Article 1(1)(c) of the Hague Securities Convention), and the Issuer is the "entitlement holder" (within the meaning of Section 8-102(a)(7) of the UCC) and the "account holder" (within the meaning of Article 1(1)(d) of the Hague Securities Convention), (ii) each item of property (whether cash, a security, an instrument or any other property) credited to the Cash Collateral Account will be treated as a "financial asset" (within the meaning of Section 8-102(a)(9) of the UCC).

Additionally, the Custodian will establish in its records a securities account to which the Designated Q-REMIC Interests will be credited and treated as financial assets and with respect to which the Issuer will be the entitlement holder.

The Collateral and any rights or proceeds derived therefrom will be subject to the liens and other security interests in favor of the Indenture Trustee on behalf of the Secured Parties as set forth in the Indenture.

The Administration Agreement

On the Closing Date, the Issuer will enter into the Administration Agreement with the Administrator, Indenture Trustee, Exchange Administrator, Custodian and Investment Agent. Pursuant to the Administration Agreement, the Issuer will appoint the Administrator and the Administrator will agree to pay the fees and expenses of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee and to indemnify those parties in accordance with the applicable indemnification provisions set forth in the applicable Transaction Documents.

LOAN ACQUISITION PRACTICES AND SERVICING STANDARDS

Single-Family Business Overview

Fannie Mae provides a stable source of liquidity to the mortgage market and supports the availability and affordability of housing in the United States. Fannie Mae operates in the secondary mortgage market, primarily working with lenders. Fannie Mae does not originate loans or lend money directly to consumers in the primary mortgage market. Instead, Fannie Mae securitizes mortgage loans originated by lenders into Fannie Mae mortgage-backed securities that Fannie Mae guarantees (which Fannie Mae refers to as Fannie Mae MBS); purchases mortgage loans and mortgage-related securities, primarily for securitization and sale at a later date; manages mortgage credit risk; and engages in other activities that support the supply of affordable housing.

Fannie Mae facilitates the flow of global capital into the U.S. mortgage market by assuming and managing credit risk. Accordingly, effective credit risk management is a key component of Fannie Mae's overall operations. Fannie Mae's single-family business has built a comprehensive approach to credit risk management with end-to-end processes. Fannie Mae's single-family credit risk management strategy includes acquisition and servicing policies, underwriting and servicing standards, portfolio diversification and monitoring, problem loan and real estate owned ("**REO**") management, and the transfer of credit risk through credit enhancements including risk transfer transactions.

Delegated Approach

Fannie Mae relies on loan sellers to comply with its underwriting and eligibility guidelines, as well as its policies and procedures related to selling single-family mortgage loans to it. Fannie Mae relies on loan servicers to comply with Fannie Mae policies for servicing the single-family loans in its single-family guaranty book. Loan sellers and servicers are required to make representations and warranties to Fannie Mae as to certain facts and circumstances concerning the loan sellers themselves and the mortgage loans they are selling and/or servicing. Representations and warranties required by Fannie Mae are described in the Mortgage Selling and Servicing Contract, the Fannie Mae Single-Family Selling Guide (as amended, the "**Selling Guide**"), the Fannie Mae Single-Family Servicing Guide (as amended, the "**Servicing Guide**"), collectively, with other agreements with the seller and servicer, the "**Lender Contract**". Subject to representation and warranty relief and sunset policies, violation of any representation and warranty is a breach of the Lender Contract, which may entitle Fannie Mae to pursue certain remedies, including a loan repurchase request, as further described under "*Quality Control*" below.

Fannie Mae's comprehensive risk management approach ensures that Fannie Mae's representations and warranties and related requirements are updated regularly to address evolving credit issues in Fannie Mae's acquisition standards and credit portfolio in a timely manner.

Fannie Mae's ongoing communications with loan sellers and servicers are designed to be timely and transparent in order to keep loan sellers and servicers and the market informed of up-to-date policy and requirements changes. Fannie Mae communicates updates to the Selling Guide and Servicing Guide and other requirements through lender letters and announcements, other documents posted on <http://www.fanniemae.com>. Fannie Mae may also provide information that loan sellers and servicers need through mailed letters and notices.

Single-Family Credit Risk Management Approach

Fannie Mae employs a comprehensive and dynamic risk management approach to manage its single-family business and the credit risk profile of its book of business. The key components of Fannie Mae's risk management processes are:

- **Loan Seller and Servicer Management and Oversight:** standards, reviews, limits, monitoring and training;
- **Credit Standards:** underwriting, eligibility, property and appraisal requirements, guidelines, policies and procedures covering origination through closing;
- **Loan Delivery Controls:** data and document controls and validations;
- **Quality Control:** random and discretionary reviews, loan seller quality control and enforcement;
- **Ongoing Surveillance and Feedback:** in-depth reviews of loan seller and loan quality;

- **Servicing Standards:** collections, delinquencies and modifications; and
- **REO Property Management and Valuation.**

Fannie Mae evaluates the performance of loan sellers, servicers and the related loans themselves against Fannie Mae's requirements in a continuous manner and uses detailed information from its evaluations to update its policies, guidelines, procedures, reviews and enforcement actions, including remediation activities if warranted. Fannie Mae evaluates loan seller deliveries and the performance of the loans Fannie Mae acquires on an ongoing basis and uses these evaluations to target Fannie Mae's reviews. Fannie Mae conducts ongoing reviews of its loan sellers to validate that they have the ability to comply with Fannie Mae's standards and requirements. Fannie Mae conducts additional reviews of loan sellers based on business model changes and other factors. Fannie Mae establishes and enforces robust underwriting and eligibility standards to ensure sustainable homeownership. Fannie Mae may from time to time supplement, alter, waive or rescind any of the requirements of the Selling and Servicing Guides or the Lender Contract.

Loan Seller and Servicer Management and Oversight

Initial Loan Seller and Servicer Requirements and Approvals

Loan sellers and servicers must be approved to do business with Fannie Mae. Fannie Mae determines a loan seller and servicer's qualifications by reviewing the loan seller and servicer's financial condition, organization, staffing, selling and servicing experience, and other relevant factors. Prior to approving a loan seller or servicer, Fannie Mae performs a pre-contract assessment that helps Fannie Mae to determine the quality of a loan seller or servicer's processes and effectiveness of controls. Pre-contract assessments may encompass both an offsite review and onsite review to assess readiness to do business with Fannie Mae. Fannie Mae's review process involves collaboration across all key business areas responsible for managing risk to assure the soundness of the loans Fannie Mae acquires from a loan seller. Approval or rejection of a loan seller's or servicer's application is based on Fannie Mae's business judgment, taking into account the totality of the relevant circumstances. To be considered for approval to sell residential first-lien mortgage loans to Fannie Mae, or to service them, at a minimum a loan seller or servicer generally must:

- have as its principal business purpose the origination, selling and/or servicing of residential mortgage loans for a minimum of 24 months;
- have demonstrated the ability to originate, sell and/or service the types of mortgage loans for which approval is being requested;
- have adequate facilities and staff experienced in originating, selling and/or servicing the types of mortgage loans for which approval is being requested;
- be duly organized, validly existing, properly licensed (in good standing), or otherwise authorized to conduct its business in each of the jurisdictions in which it originates, sells and/or services residential mortgage loans;
- have internal audit and management control processes to evaluate and monitor the overall quality of its loan production and servicing;
- have written procedures for quality control, servicing and the approval and management of vendors and other third-party service providers;
- have a fidelity bond and an errors and omissions policy in effect with such coverage amounts as Fannie Mae requires, and agree to modify them as necessary to meet Fannie Mae's requirements; and
- meet Fannie Mae's counterparty requirements, including having a minimum net worth of at least \$2.5 million plus 0.25% of the unpaid principal balance of the servicing portfolio and minimum capital and liquidity requirements; and satisfy any additional eligibility criteria Fannie Mae imposes from time to time. Such additional criteria may apply either to individual loan sellers or servicers, all loan sellers, all loan sellers or servicers that are seeking approval to sell and/or service certain types of mortgage loans or all loan sellers or servicers that share certain characteristics.

Fannie Mae approves or disapproves an application to become an approved loan seller or servicer based on Fannie Mae's assessment of its total circumstances, and Fannie Mae may reject or condition the application of a loan seller or servicer that satisfies Fannie Mae's general eligibility criteria. No applicant has an absolute or automatic right to be approved to do business with Fannie Mae.

Ongoing Loan Seller and Servicer Management

Exposure Limits. Fannie Mae's primary institutional counterparty risks include its exposure to loan sellers and servicers that originate or service the mortgage loans that back Fannie Mae's MBS. Fannie Mae relies on these loan sellers and servicers to repurchase loans from Fannie Mae or reimburse it for losses in certain circumstances. Fannie Mae rates each of its counterparties on both a quantitative and qualitative basis to establish Fannie Mae's risk tolerance and maximum exposure for each counterparty. Fannie Mae's ratings assess a counterparty's profitability, asset quality, capitalization, liquidity, funding, portfolio concentration and management quality. Fannie Mae establishes exposure limits for each counterparty based on the counterparty's financial strength and capacity to ensure that Fannie Mae's exposure to a given counterparty is commensurate with Fannie Mae's ability to satisfy its claims. Fannie Mae manages its ratings and exposure limits based on its ongoing evaluation of the counterparties' current financial position, updated internal ratings and the performance and risk profile of the loans Fannie Mae acquires.

To mitigate Fannie Mae's exposure to troubled loan sellers and servicers, Fannie Mae may take a range of possible actions, including requiring a guaranty of their obligations by higher-rated affiliated entities, reducing or eliminating their exposure limits or certain of their business activities, transferring servicing to third parties, requiring them to deliver collateral to secure their obligations, increasing and/or accelerating Fannie Mae's loan-level QC reviews, and suspending or terminating their approved loan seller or servicer status with Fannie Mae.

Additional Monitoring of Loan Sellers

Following the initial approval process, Fannie Mae monitors loan sellers on an ongoing basis using Fannie Mae's mortgage origination risk assessment procedures. Dedicated teams of reviewers perform an annual on-site operational assessment of controls in various functional areas of the origination activities for Fannie Mae's highest volume loan sellers. Fannie Mae also selects other loan sellers annually by volume or risk profile for on-site and desk reviews of compliance with Fannie Mae's origination policies. For loan sellers with emerging growth and potentially elevated risk, Fannie Mae conducts additional file reviews. In addition, Fannie Mae may perform on-site reviews of new loan sellers when they meet certain delivery thresholds and of established loan sellers when they fail financial or loan performance requirements. Fannie Mae analyzes the results of such reviews, report any issues to senior management, prioritize Fannie Mae's findings, develop remediation action plans, and validate a loan seller's progress against Fannie Mae's remediation plans. Fannie Mae adjusts its financial ratings and maximum exposure limits of the loan sellers based on the results of its reviews, the performance of the loans Fannie Mae acquire from the loan seller, and their compliance with Fannie Mae's remediation action plans.

Credit Standards

Loan Underwriting and Eligibility

Fannie Mae's credit underwriting and eligibility standards establish requirements that loan sellers must follow in evaluating the capacity and willingness of borrowers to repay the loans Fannie Mae acquires and the adequacy of the pledged property as collateral. Fannie Mae's goal is to promote sustainable homeownership by considering all stages of the life cycle of loans under various economic scenarios so that borrowers have a higher probability of continuing to make their monthly housing payments.

In evaluating a borrower's willingness and capacity to repay the mortgage loan, in general, the loan seller must include documentation in the loan file that confirms that information provided by the borrower as part of the loan application is accurate and supports the loan seller's assessment of the borrower's credit history, employment, income, assets, and other financial information. The loan seller must conduct a comprehensive risk assessment of each mortgage loan application prior to approving it. The loan seller is also responsible for the accuracy and completeness of the appraisal to the extent one is required and its assessment of the marketability of the property as well as underwriting the appraisal report to determine whether the property presents adequate collateral for the mortgage loan.

In establishing Fannie Mae's single-family mortgage credit risk policies and standards, Fannie Mae closely monitors changes in housing and economic conditions, as well as regulatory and legislative changes, and the impact of those changes on the credit risk profile of Fannie Mae's existing single-family mortgage credit book of business. Fannie Mae regularly reviews and provides updates to its underwriting and property standards and eligibility requirements to take into consideration changing market conditions. The credit risk profile of Fannie Mae's single-family mortgage credit book of business is influenced by, among other things, the credit profile of the borrowers, features of the loans Fannie Mae acquires, the mix of the loan products Fannie Mae acquires, the types of properties securing the loans, and the housing market and economy more generally.

Following the credit crisis of 2007 and 2008, Fannie Mae made significant changes to its credit standards to improve the performance of its acquisitions. Included among these changes were the elimination of contract terms that allowed for delivery of loans originated within certain expanded underwriting and credit risk guidelines. Fannie Mae also implemented lower maximum loan-to-value ("**LTV**") ratios, lower debt-to-income ("**DTI**") ratios, an overall minimum Credit Score requirement and higher minimum Credit Scores for certain product/amortization types. Fannie Mae's Selling Guide provides that the LTV/Combined LTV/Home Equity Combined LTV (LTV/CLTV/HCLTV) for mortgage loans Fannie Mae purchases may not be greater than 97%, though the maximum permitted LTV may be as low as 60% for loans secured by certain property types and the maximum LTV may be higher for certain loans, such as those purchased under Fannie Mae's High LTV Refinance guidelines. None of the Reference Obligations, as reported to Fannie Mae by the related loan sellers, has an LTV less than or equal to 60% or greater than 80%. Fannie Mae's Selling Guide provides that the minimum Credit Scores may not be lower than 620, but may require a higher minimum Credit Score depending on the loan characteristics. Fannie Mae's Selling Guide provides that the DTI for manually underwritten loans may not exceed 45%. In 2017, Fannie Mae enabled mortgage loans submitted through DU with DTI ratios above 45% (up to 50%) to rely on DU's comprehensive risk assessment. None of the Reference Obligations, as reported to Fannie Mae by the related loan sellers, has a DTI that exceeds 50%.

Fannie Mae's Selling Guide establishes the baseline risk parameters, or credit standards, for mortgage loans that Fannie Mae acquires from its approved loan sellers, and by controlling these parameters Fannie Mae controls the credit risk profile of Fannie Mae's acquired loans. Loan sellers must evaluate the overall level of delinquency risk that is present in each mortgage application by taking into consideration any layering of risk factors, the significance of those factors, and the overall risks present in the mortgage application. Key risk elements addressed in Fannie Mae's credit requirements include, LTV ratio, product type, number of units, property type and adequacy of collateral, occupancy type, credit score, DTI ratio, loan purpose, and reserves. The loan seller's determination of the mortgage delinquency risk, the assessment of the adequacy of the mortgaged property as security for the loan, the determination of whether the loan satisfies Fannie Mae's eligibility criteria in all respects, and the acceptability of the documentation in the mortgage file should all enter into the decision on whether to deliver the loan to Fannie Mae.

Additionally, Fannie Mae offers loan sellers new, innovative tools to help ensure the quality of mortgage loans delivered to Fannie Mae. These tools include EarlyCheck™, which enables early validation of loan delivery eligibility, allowing lenders to make corrections and avoid the delivery of ineligible loans. EarlyCheck™ is available to loan sellers regardless of the loan underwriting method used.

Permitted Variances

In addition to the underwriting and eligibility standards outlined in Fannie Mae's Selling Guide, its credit risk tolerance profile includes additional eligible loans that Fannie Mae acquires under specific Permitted Variances granted to specific loan sellers.

Fannie Mae will acquire variance loans from those loan sellers that have demonstrated the capacity, systems capabilities and experience to originate and service loans in compliance with the specific terms of the Permitted Variance. Fannie Mae manages variance loans by requiring the specific terms of the Permitted Variance to be set forth in documented contract terms, which are applied on a case-by-case basis to individual loan sellers. All of the other terms and requirements of Fannie Mae's Selling Guide continue to apply to variance loans, including the loan seller's representations and warranties and the obligation to repurchase a variance loan that fails to meet the terms of the Selling Guide

Fannie Mae evaluates, approves and monitors variances to Fannie Mae's Selling Guide. Fannie Mae requires the loan seller to provide Fannie Mae with its rationale and analysis, as applicable, for the variance request. Fannie Mae analyzes the proposed credit risk parameters of the variance, any proposed offsetting or compensating risk parameters, and, as appropriate, the experience of the loan seller in originating and servicing the proposed variance loans, the performance of variance loans previously originated and serviced by the loan seller, the ongoing performance metrics to be applied to the variance loans and the forecast impact of the proposed variance loans on Fannie Mae's overall risk profile, acquisition characteristics and MBS performance. If Fannie Mae agrees on the terms of a Permitted Variance with a loan seller, Fannie Mae may update its loan level acquisition data edits to provide for the specific agreed features of the variance loan with the related loan seller. On an ongoing basis, Fannie Mae generally reviews and evaluates the performance of variance loans Fannie Mae has acquired to confirm that variance loans perform according to Fannie Mae's expectations.

The table below summarizes the largest categories of Permitted Variances that are present in the Reference Obligations which each represent at least 1.00% of the aggregate amount of Reference Obligations (by unpaid principal balance). All other categories of Permitted Variances combined represent approximately 3.43% of the aggregate amount of Reference Obligations (by unpaid principal balance).

| Permitted Variance Category | Total Unpaid Principal Balance (Millions)⁽¹⁾ | Number of Reference Obligations⁽¹⁾ | Weighted Average Credit Score⁽¹⁾ | Weighted Average LTV⁽¹⁾ | % of Unpaid Principal Balance of the Reference Obligations⁽¹⁾ |
|---|--|--|--|---|---|
| Freddie Mac's Loan Product Advisor Mortgages (LP) | \$1,839.91 | 6,368 | 755 | 75.54% | 6.28% |
| Appraisal Modernization Pilot | \$695.78 | 2,160 | 741 | 74.37% | 2.37% |

(1) Amounts are stated as of the acquisition dates.

The primary Permitted Variance categories, as shown in the table above, relate to (i) use of the AUS developed by Freddie Mac and (ii) an appraisal completed using a bifurcated process by which an individual performs the on-site observation of the property interior and exterior, and a second individual, who is a licensed appraiser, uses the gathered information to develop a USPAP-compliant appraisal.

Underwriting Process

Fannie Mae provides two options to loan sellers for conducting a comprehensive risk assessment: automated underwriting, primarily through Desktop Underwriter®, or manual underwriting. Both methods include an evaluation of the borrower's equity investment, credit history, liquid reserves, reliable and recurring income, and the cumulative effect that these and other risk factors have on mortgage loan performance.

Desktop Underwriter® - General

Desktop Underwriter® ("DU") is a proprietary automated underwriting tool that evaluates mortgage delinquency risk and arrives at an underwriting recommendation by performing a comprehensive examination of the primary and contributory risk factors in a mortgage application. DU analyzes the information in the loan case file to reach an overall credit risk assessment to determine eligibility for delivery to Fannie Mae. Fannie Mae grants a limited waiver of certain underwriting representations and warranties to a loan seller that sells an eligible mortgage underwritten with DU, provided the seller also complies with specific requirements for DU loans outlined in the Selling Guide. Approximately 93.62% of the Reference Obligations by the Cut-off Date Balance were underwritten using DU.

No single factor determines a borrower's ability or willingness to make his or her mortgage payments. When several high-risk factors are present in a loan case-file without sufficient offsets, the likelihood of serious delinquency increases. DU conducts its analysis uniformly and without regard to race, gender, or other prohibited factors. DU uses validated, statistically significant variables that have been shown to be predictive of mortgage delinquency across all groups.

DU considers the following characteristics in the credit report to assess the creditworthiness of borrowers who have traditional credit histories: credit history, delinquent accounts, installment accounts, revolving credit use, public records, foreclosures, collection accounts and inquiries. The following additional mortgage risk factors are

also evaluated: the borrower's equity and LTV ratio, liquid reserves, loan purpose, loan term, loan amortization type, occupancy type, debt-to-income ratio, housing expense ratio, property type, self-employment, and co-borrowers. DU performs a comprehensive evaluation, weighing each factor based on the amount of risk it represents and its importance to the recommendation. DU analyzes the results of this evaluation along with the evaluation of the borrower's credit profile to arrive at the underwriting recommendation for the loan case-file. As part of Fannie Mae's normal business operations, DU is reviewed regularly to determine whether its risk analysis is appropriate based on new data and actual loan performance information.

Upon completion of its assessment, DU issues a DU Underwriting Findings report. The DU Underwriting Findings report summarizes the overall risk assessment and whether the loan is eligible for delivery to Fannie Mae, and lists the steps necessary for the loan seller to complete the processing of the loan file. If the loan is ineligible for delivery to Fannie Mae, the report indicates specific reasons, such as a credit score below Fannie Mae's minimum requirements. This is typically the first report viewed by an underwriter or a loan officer after the loan case-file has been underwritten with DU.

DU also provides specific messages for each individual loan case-file to assist loan sellers in processing and closing loans. These include a number of "potential red flag" messages designed to help the loan seller detect inconsistencies in the loan case-file. Neither the presence nor absence of these messages alters the loan seller's responsibility to ensure accurate information in all areas of the loan process or otherwise comply with applicable law, including the Fair Credit Reporting Act.

When underwriting loan case-files through DU, the loan seller remains responsible for employing prudent underwriting judgment in assessing whether a loan should be approved and delivered to Fannie Mae. The loan seller must confirm the accuracy and completeness of the borrower, property, and credit report information submitted to DU, making sure that it did not fail to submit any data that might have affected the DU recommendation. The loan seller must ensure the loan complies with all of the verification messages and approval conditions specified in the DU Underwriting Findings report; apply due diligence when reviewing the loan file documentation; and determine if there is any potentially derogatory or contradictory information that is not part of the data analyzed by DU. The loan seller must also take action when erroneous data in the credit report or contradictory or derogatory information in the loan file would justify additional investigation or would provide grounds for a decision that is different from the recommendation that DU delivered.

In 2018, Fannie Mae made adjustments to the DU credit risk assessment to account for 2018 market conditions (rising interest rates, waning refinances, and higher loan-to-value lending). Fannie Mae continues to closely monitor loan acquisitions and market conditions and, as appropriate, make changes in Fannie Mae's eligibility criteria so that the loans it acquires are consistent with its risk appetite.

Desktop Underwriter® - Documentation Requirements

Income and Employment Documentation Requirements. DU indicates the minimum income and employment verification documentation required to process a loan application. This level of documentation may not be adequate for every borrower and every situation. The loan seller must determine whether additional documentation is warranted. If the loan seller is unable to determine the stability of the borrower's income on the basis of the available documentation, the income must be removed and the loan case-file resubmitted to DU.

The DU validation service will use third-party vendor data to perform calculations and validate information entered by the lender in DU. When a component of the loan file is validated by the DU validation service, DU will issue a message indicating the required documentation. These documentation requirements may differ from those described below.

For salaried or hourly borrowers DU requires, at a minimum, the borrower's recent paystub and a W-2 covering the most recent one-year period, along with a verbal verification of employment. For the verification of bonus, overtime, and commission income, DU requires, at a minimum, the borrower's recent paystub and W-2 forms covering the most recent two-year period along with a verbal verification of employment.

The loan seller may substitute a completed Request for Verification of Employment ("**written VOE**") (Form 1005 or Form 1005S) with year-to-date income for the paystub and W-2. The written VOE must contain the prior year's earnings if it is a substitute for the W-2.

Based on the overall risk of the loan, DU will determine if signed personal and, if applicable, business federal income tax returns for the preceding year are sufficient to document a self-employed borrower's income, or if such returns for the most recent two-year period are required. Business tax returns do not have to be provided unless the business is a corporation, an S corporation, a limited liability company or a partnership. Under certain conditions, the requirements for business tax returns may be waived.

The tax returns must include a minimum of 12 months of self-employment income for the income to be included.

All borrowers are required to complete and sign IRS Form 4506-T at or before closing (regardless of income source). Employment must be verified within 10 business days prior to the note date for employment income, or a verification of the business within 120 calendar days prior to the note date for self-employment income.

DU Appraisal Requirements. DU provides the user with a fieldwork requirement in the DU Underwriting Findings report. Based on the specific property type, DU generally will require an interior and exterior inspection appraisal completed on one of the following appraisal report forms:

- Uniform Residential Appraisal Report (Form 1004)
- Individual Condominium Unit Appraisal Report (Form 1073)
- Individual Co-operative Interest Appraisal Report (Form 2090)
- Manufactured Home Appraisal Report (Form 1004C)
- Small Residential Income Property Appraisal Report (Form 1025)

A Property Inspection Waiver (PIW), also known as an Appraisal Waiver is a fieldwork recommendation that results in an offer to waive the appraisal and is available for certain eligible purchase and refinance transactions where there is a prior appraisal for the subject property. The following are not eligible for a PIW offer: construction and construction-to-permanent loans; two- to four-unit properties; HomeStyle® mortgage products (Renovation and Energy); leasehold properties, community land trust homes, or other properties with resale restrictions; co-operative units and manufactured homes; transactions using gifts of equity; transactions where either the purchase price or estimated value provided to DU is \$1,000,000 or more, Texas Section 50(a)(06) loans; and DU loan case-files that receive an ineligible recommendation.

For loans constituting approximately 21.96% of the Reference Obligations by the Cut-off Date Balance, a property inspection waiver was granted based on the risk profile of the loan.

Loan Sellers' Proprietary Automated Underwriting Systems

Subject to a Permitted Variance, Fannie Mae also may acquire mortgage loans that have been underwritten by loan sellers' AUS. In order to be considered for an AUS Permitted Variance, a loan seller must demonstrate the robustness of its proprietary AUS system and its suitability for underwriting loans delivered to Fannie Mae. Before agreeing to acquire loans underwritten by a loan seller's AUS, Fannie Mae reviews the parameters and data elements that contributed to the evaluations and decisions of the AUS, and evaluates a significant portfolio of test loans and compare the AUS results to the evaluations of the same loans using DU. In addition, on a regular basis, Fannie Mae reviews loans delivered under a loan seller's AUS and submits them to a DU simulator to assist in evaluating the related risk. Based on this ongoing analysis Fannie Mae may make changes to the eligibility terms of Fannie Mae's AUS variance, including overlaying minimum credit limits, applying maximum LTV ratios or revoking a loan seller's ability to use the AUS. Other than a limited waiver of certain underwriting representations and warranties that is granted to a loan seller that sells an eligible mortgage underwritten with a permitted AUS, such loan seller must still make the full array of underwriting representations and warranties to Fannie Mae.

During the period between October 1, 2018 and August 31, 2019, two loan sellers were permitted to deliver loans underwritten through the loan seller's proprietary AUS. In addition, Fannie Mae has authorized additional loan sellers to deliver loans to Fannie Mae that had been evaluated by Freddie Mac's Loan Prospector Advisor AUS.

Manual Underwriting

Loan sellers that choose to manually underwrite a mortgage application are expected to follow the comprehensive risk assessment approach, which requires the loan seller to evaluate the LTV, credit score, occupancy, loan purpose, property type, DTI and other factors as outlined in the Selling Guide and Lender Contract. Under this approach, loan sellers evaluate key elements to assess the overall level of serious delinquency risk by taking into consideration any layering of risk factors, the significance of those factors and the overall risks present in the mortgage application. The loan seller represents and warrants to Fannie Mae that each loan it underwrites manually is eligible to be acquired by Fannie Mae.

The Eligibility Matrix, available through Fannie Mae's Business Portal and incorporated in Fannie Mae's Selling Guide, provides the comprehensive LTV, combined loan-to-value ("CLTV"), and home equity combined loan-to-value ratio requirements for conventional first mortgage loans eligible for delivery to Fannie Mae. The Eligibility Matrix also includes credit score, minimum reserve requirements (in months), and maximum DTI ratio requirements for manually underwritten loans. The Eligibility Matrix provides a solid foundation for assessing the risk of a manually underwritten loan, and identifies the risk elements to evaluate for each transaction type. The loan seller's determination of the mortgage delinquency risk, the assessment of the adequacy of the property as security for the mortgage, the determination of whether the mortgage satisfies Fannie Mae's mortgage eligibility criteria, and the acceptability of the documentation in the mortgage file should all factor into the decision whether to deliver the mortgage to Fannie Mae. The loan seller must fully document the results of its comprehensive risk assessment and final underwriting decision, and ensure that the information used to reach its assessment is valid, accurate and substantiated.

In general, manually underwritten mortgage loans sold to Fannie Mae require an appraisal based on an interior and exterior property inspection and must be completed on the appropriate form depending on the property type.

Appraisal Standards and Controls

Fannie Mae's goal is to acquire only those mortgage loans that the borrower is able to sustain, and a key factor Fannie Mae uses to evaluate the sustainability of a borrower's home ownership is the value of the home and the borrower's equity in it. To evaluate the adequacy of the mortgaged properties as collateral for Fannie Mae's investment, Fannie Mae requires loan sellers to obtain appraisals on most of the loans that it acquires. Fannie Mae includes detailed appraisal, property and project requirements in its Selling Guide to allow loan sellers to make prudent underwriting decisions and to assure that the mortgaged properties have the value to sustain home ownership and protect Fannie Mae's interest.

Fannie Mae leverages analytics from its proprietary appraisal analysis application, Collateral Underwriter™, in Fannie Mae's post-purchase QC process to uncover valuation defects and to enhance its discretionary QC sampling. Collateral Underwriter™ leverages a database of real estate transaction data and proprietary analytical models to perform an automated risk assessment of appraisals submitted to UCDP® and identify appraisals with heightened risk of appraisal quality issues, property eligibility or policy compliance violations, and overvaluation. Fannie Mae also uses this data in its Appraiser Quality monitoring framework to detect and manage collateral risk issues at the appraiser level.

Collateral Underwriter™ is available to Fannie Mae's loan sellers and is provided free of charge. Loan sellers are provided with a risk score, risk flags, and detailed messaging to highlight specific aspects of the appraisal that may warrant further attention. A dynamic web-based application including comparable sales data, mapping, aerial and street-level photography, market trends, public records data, building permits, and other features assists lenders with analysis of the appraisal. Collateral Underwriter™ findings are integrated with Desktop Underwriter® and can therefore be incorporated into a loan seller's existing underwriting process. Using Collateral Underwriter™ allows the loan seller to assess the appraisal and address any issues prior to delivery of the mortgage loan to Fannie Mae, which helps loan sellers mitigate repurchase risk resulting from appraisal representations and warranties.

HomeReady® Mortgages

HomeReady® is Fannie Mae's affordable, low down payment mortgage product designed to expand the availability of mortgage financing to creditworthy low-to-moderate-income borrowers. A borrower purchasing or refinancing a single-family home may take advantage of the program provided the borrower does not exceed any income limits that may apply in certain areas. HomeReady® loans are underwritten through DU to the same

performance expectations as all other Fannie Mae loans. Under the HomeReady® program, non-occupant borrower income, rental payments and boarder income may be considered as allowable income sources to help a borrower qualify for mortgage financing. Borrowers may receive financing for LTVs up to 97% for purchase of a one-unit principal residence, LTVs up to 95% for a limited cash-out refinance transaction, and LTVs up to 97% for a limited cash-out refinance transaction when the mortgage being refinanced is owned or guaranteed by Fannie Mae. Additionally, gifts, grants, Community Seconds® and cash-on-hand can be used as sources of funds for down payment and closing costs. HomeReady® also allows for mortgage insurance coverage at levels lower than would otherwise be required for loans with LTVs greater than 90%, which may increase the severity of losses arising with respect to such Reference Obligations that become Credit Event Reference Obligations. Moreover, the mortgage insurance for such mortgage loans is cancellable under certain conditions as per Fannie Mae's Servicing Guide. As of the Cut-off Date, approximately 2.65% of the Reference Obligations by the Cut-off Date Balance consist of mortgage loans originated under HomeReady®. As of the Cut-off Date, approximately 0.21% by loan count (or approximately 0.26% by the Cut-off Date Balance) of the mortgage loans that were underwritten through DU and originated under HomeReady® in the Reference Pool were underwritten using boarder income.

High LTV Refinance Option

At the direction of FHFA and in coordination with Freddie Mac, Fannie Mae introduced a high LTV refinance program for loans originated on or after October 1, 2017, designed to provide refinance opportunities to borrowers with existing Fannie Mae mortgage loans who are current in their mortgage payments but whose LTV ratios exceed the maximum permitted for standard refinance products under Fannie Mae's Selling Guide (the "**High LTV Refinance Option**"). To be eligible for refinancing under the High LTV Refinance Option, the existing loan, among other things, must (i) be a first-lien, conventional mortgage loan owned or securitized by Fannie Mae, (ii) have an LTV exceeding 95% (for one-unit principal residences) or exceeding the maximum LTV otherwise permitted under Fannie Mae guidelines (for all other single-family property types), (iii) have an origination date on or after October 1, 2017, (iv) have been originated at least 15 months prior to the refinance date and (v) have had no 30-day delinquency in the immediately preceding six months, and no more than one 30-day delinquency in the immediately preceding 12 months. Loans that are subject to recourse, repurchase agreements, indemnification or other negotiated credit enhancement required at origination are potentially eligible so long as the refinance loan is subject to credit enhancement that meets eligibility requirements. A refinance loan under the High LTV Refinance Option is subject to additional limitations and requirements, including borrower requirements, to maintain the risk profile of the existing loan. The refinance loan may be underwritten using DU or manually. Existing DU Refi Plus™ Loans, RefiPlus™ Loans and loans subject to outstanding repurchase demands are ineligible for the High LTV Refinance Option. Although lenders are permitted under the High LTV Refinance Option to apply their own funds to reduce existing loan balances to induce borrowers to refinance, principal forgiveness is not currently permitted under the program.

Loans originated under the High LTV Refinance Option are eligible for lender relief with regard to certain representations and warranties upon origination and are potentially eligible for further relief in accordance with the Rep and Warrant Framework discussed below under "*Quality Control*." To be eligible for such further relief, a loan must satisfy the following criteria:

- for the 12-month period following the date of acquisition of the loan by Fannie Mae, the related borrower had no 30-day or greater delinquencies; or
- for the 36-month period following the date of acquisition of the loan by Fannie Mae, the related borrower:
 - had no more than two 30-day delinquencies,
 - had no 60-day or greater delinquencies, and
 - is not 30 or more days delinquent with respect to the 36th monthly payment.

Reference Obligations are potentially eligible for refinancing under the High LTV Refinance Option. As described above in "Summary — The Reference Pool," the resulting High LTV Refinance Reference Obligation will be deemed a Reference Obligation and will be included in the Reference Pool in replacement of the original Reference Obligation.

Loan Delivery Controls

Loan Data Delivery and Quality Assurance

Loan data for all mortgage loans must be transmitted to Fannie Mae using Loan Delivery, an electronic web-based application that allows loan sellers to deliver whole loans for purchase and MBS loans for securitization. Loan sellers can import loan and pool data, perform edits to facilitate loan delivery, transfer loans between commitments (or pools), track the status of loan deliveries, generate reports, and export loan and pool data back to the loan seller's organization.

Fannie Mae and Freddie Mac have agreed upon a common set of loan delivery data requirements, known as the Uniform Loan Delivery Dataset ("**ULDD**"), applicable to all single-family loans delivered on or after July 1, 2012. ULDD supports improved quality and accuracy of data and helps loan sellers and Fannie Mae to manage risk through efficient collection and use of standardized information concerning loan terms, collateral and borrowers.

The loan seller must provide information about certain borrower and property characteristics as part of the loan delivery data. Although loan sellers are strongly encouraged to provide all data at the time of initial loan delivery, any missing or corrected data must be provided by the loan seller as soon as possible after initial delivery.

All loans delivered to Fannie Mae are submitted to an automated validation process to test data and eligibility. The loan seller submits data into Loan Delivery, where the data is tested for compliance with certain eligibility rules. If there is a breach of the rules, Fannie Mae evaluates the nature of the breach, and for certain significant breaches the loan seller must resolve the breach and re-validate eligibility. A loan seller may deliver loans to Fannie Mae for funding or issuing only if there are no outstanding significant breaches for the loans.

Loan Documents and Custodial Process

Fannie Mae requires loan sellers to maintain copies of certain documents relating to mortgage loans acquired by Fannie Mae, some of which must be held either by Fannie Mae's designated document custodian ("**DDC**") or by another custodial institution that meets the following eligibility criteria as set out more fully in the Selling Guide and in Fannie Mae's Requirements for Document Custodians ("**RDC Guide**") (either such custodian, a "document custodian"):

- must be a federally regulated institution or a subsidiary of such an institution;
- must be in good standing with its regulator; and
- must have a financial rating of "125" or better from IDC Financial Publishing or "C" or better from Kroll Bond Ratings Agency.

If a loan seller or servicer (or an affiliate of a loan seller or servicer) satisfies these eligibility criteria, meets any other conditions that Fannie Mae may require and receives approval from Fannie Mae, it may act as document custodian for mortgage loans Fannie Mae acquires.

The document custodian must review and examine all custody documents to ensure that all required documents are received and that they conform to the data and documentation provisions of the Selling Guide and the RDC Guide. In order for Fannie Mae to provide funding to the loan seller, the loan or pool must be certified by a document custodian. The certification must state that the document custodian has examined, and maintains physical custody and control of, the required documents for the mortgage loans. Fannie Mae's certification processes for whole loan and MBS deliveries are designed to assure Fannie Mae and the marketplace that all mortgage loans purchased or securitized by Fannie Mae conform to its requirements, meet the characteristics attributed to them in MBS disclosures or on the basis of which Fannie Mae acquired them.

Document custodians are subject to certain additional requirements, including monthly assurance checks, annual re-certifications and randomly-selected independent quality assurance reviews performed by Fannie Mae.

Fannie Mae requires that document custodians develop and implement a monthly quality control review process to examine the quality of document and data certifications for the prior month. Fannie Mae reviews the results of the monthly quality control to monitor custodian performance. If monthly quality control indicates issues, Fannie Mae will engage the document custodian to determine a remediation plan. All findings from the monthly quality control must be documented in a Findings Report. Each document custodian is also required to engage the services of an independent third-party audit firm to perform an annual audit to assess whether the document custodian satisfies Fannie Mae's eligibility criteria and operates in compliance with Fannie Mae's requirements. Document custodians are responsible for all costs associated with the independent audit. The auditor should exercise judgment in adapting the audit requirements to a specific document custodian's processes and procedures. Any variation or departure from the outlined requirements must be reviewed with Fannie Mae in advance. Upon receipt of the auditor's final audit report, the document custodian must provide a copy to Fannie Mae. Fannie Mae will review the audit results and work with the document custodian to track remediation items through to resolution. The document custodian is responsible for providing proof that audit review results were remediated to Fannie Mae's satisfaction. At any time, with or without cause, Fannie Mae has the right to require a document custodian to transfer documents to a different document custodian, which may be a DDC or another eligible document custodian.

Quality Control

Fannie Mae Quality Control Policy and Process

Fannie Mae has established quality control ("QC") policies and procedures to evaluate mortgage loans on a comprehensive basis with the primary goal of confirming that the mortgage loans Fannie Mae acquires meet Fannie Mae's underwriting and eligibility requirements. Fannie Mae periodically re-evaluates the quality control procedures and standards described in this Offering Memorandum with a view to further improving their accuracy and effectiveness consistent with Fannie Mae's mandate to support liquidity, stability and affordability in the secondary mortgage market. Accordingly, it is possible these procedures and standards will be modified over time and that any such modifications may result in fewer requests for repurchases or other remedies with respect to mortgage loans in Fannie Mae's portfolio, including the Reference Obligations, and therefore fewer Tranche Write-up Amounts being allocated to the Notes and increased risk of losses to investors.

Representations and Warranties Framework

When Fannie Mae acquires a mortgage loan, Fannie Mae relies on representations and warranties of the loan seller with respect to many critical aspects of the loans. These representations and warranties cover such matters as the:

- accuracy of the information provided by the borrower;
- accuracy and completeness of any information provided by a loan seller to Fannie Mae, including third party reports prepared by qualified professionals, such as property appraisals and credit reports;
- validity of each mortgage loan as a first-lien on the mortgaged property;
- fact that payments on each mortgage loan are current at the time of delivery to Fannie Mae;
- physical condition of the mortgaged property at the time of delivery of the mortgage loan to Fannie Mae;
- originator's compliance with all applicable federal, state and local laws, including state anti-predatory lending statutes; and
- loan seller's compliance with the Lender Contract, including the Selling Guide and any applicable Permitted Variances.

Fannie Mae's reliance on representations and warranties is a longstanding means for enhancing liquidity in the mortgage origination process while protecting Fannie Mae from acquiring loans that do not meet Fannie Mae's prescribed standards. Representations and warranties are assurance from a loan seller that Fannie Mae can rely on certain facts and circumstances concerning the loan seller itself as well as the mortgage loans being sold. Representations and warranties that Fannie Mae requires are described in Fannie Mae's Selling Guide as well as various contracts with Fannie Mae's loan sellers. Violation of any representation and warranty is a breach of the Lender Contract, and subject to enforcement relief and sunset provisions in Fannie Mae's Selling and Servicing Guides (both described below), entitling Fannie Mae to pursue certain remedies, including a loan repurchase request or other alternative remedy.

Historically, many issues related to compliance with Fannie Mae's underwriting and eligibility requirements were not detected until after loans became delinquent or the foreclosure process was completed. Following the mortgage crisis, Fannie Mae took a number of steps, including enhancing underwriting standards to better promote sustainable homeownership and collecting more accurate and consistent information about the loans Fannie Mae acquires. In 2012, Fannie Mae announced new loan data delivery requirements under the Uniform Mortgage Data Program® for the electronic collection of loan and appraisal data. These new requirements were designed to increase the accuracy, consistency and quality of loan data reported to Fannie Mae.

With better data and improved loan quality, Fannie Mae worked with FHFA and Freddie Mac to develop a framework to provide lenders a higher degree of certainty and clarity about their repurchase exposure as well as consistency around repurchase timelines and remedies. In September 2012, Fannie Mae announced the implementation of a new Selling Representations and Warranties Framework that applies to mortgage loans acquired on and after January 1, 2013 (the "**Rep and Warrant Framework**"). The Rep and Warrant Framework represented a new construct for certain representations and warranties relating to the underwriting and eligibility of loans delivered to Fannie Mae.

In adopting the Rep and Warrant Framework, Fannie Mae did not modify the representations and warranties loan sellers are required to make, nor did Fannie Mae discharge loan sellers from the responsibility to underwrite and deliver quality loans to Fannie Mae. Instead, the Rep and Warrant Framework provides loan sellers with relief from the enforcement of remedies for breaches of certain underwriting and eligibility representations and warranties for loans that meet specific payment history or quality control review requirements. Revisions to the Rep and Warrant Framework, announced in May 2014, provided loan sellers with additional relief and apply to mortgage loans acquired by Fannie Mae on and after July 1, 2014.

Rep and Warrant Framework Criteria

For conventional loans acquired by Fannie Mae on a flow basis on or after July 1, 2014, loan sellers are relieved from the enforcement of remedies for breaches of certain underwriting and eligibility representations and warranties for loans that meet specific payment history or quality control review requirements.

There are two alternative paths through which a loan seller may obtain relief:

- If the relief is based on the borrower's acceptable payment history, the relief will occur upon payment by the borrower of the first 36 monthly payments due following the mortgage loan acquisition date, provided, that the borrower:
 - has no more than two 30-day delinquencies;
 - has no 60-day or greater delinquencies; and
 - is not 30 or more days delinquent with respect to the 36th monthly payment.
- The second path consists of a QC review and applies to both performing and non-performing loans. QC reviews will be conducted as described below under "The QC Review Process". Relief under the QC review path occurs if any of the following conditions is satisfied:
 - Fannie Mae determines based on a QC review that the mortgage loan is acceptable and therefore is not subject to a repurchase request;
 - Fannie Mae determines based on a QC review that the mortgage loan is not acceptable because of a selling deficiency listed in Fannie Mae's Selling Guide, and the loan seller cures such deficiency to Fannie Mae's satisfaction in the timeframe and manner specified in the Selling Guide; or

- Fannie Mae determines based on a QC review that the mortgage loan is not acceptable but is eligible for a repurchase alternative (such as recourse or a make-whole arrangement or split loss agreement) that expires or terminates by its terms, and such repurchase alternative is effected and does satisfactorily expire or terminate by its terms.

For a discussion of how the Rep and Warrant Framework applies to the High LTV Refinance Option, see "*High LTV Refinance Option*" above.

Additional Rep and Warrant Enforcement Relief Offered to Lenders

Effective December 2016, Fannie Mae provided loan sellers with additional relief from the enforcement of remedies for breaches of representations and warranties related to property value. Relief is granted on single-family and condominium unit appraisals with Collateral Underwriter™ scores that are less than or equal to 2.5. Loan sellers are still liable for breaches of representations and warranties related to property eligibility, marketability and accuracy of subject property data.

Moreover, in October 2016, Fannie Mae announced additional optional offerings for lenders providing relief from enforcement of certain representations and warranties, as described below:

- *Borrower data.* Fannie Mae will provide loan sellers relief from enforcement of certain representations and warranties relating to borrower income, employment, and asset data that has been validated through the DU validation service for loans receiving a DU "Approve/Eligible" recommendation.
- *Appraised property value.* Fannie Mae will provide loan sellers relief from enforcement of certain representations and warranties with respect to appraised property values for one-unit single-family mortgage loans that Fannie Mae acquires through DU if the appraisals provided in connection with the loans received qualifying Collateral Underwriter™ scores.
- *Property inspection waiver.* Fannie Mae will provide loan sellers relief from repurchase obligations relating to property value, condition and marketability where loan sellers exercise the property inspection waiver options available on certain eligible transactions and pay the related fees.

Under the Rep and Warrant Framework, loan sellers will not be relieved from enforcement of certain "life of loan representations and warranties" relating to:

- Fannie Mae Charter matters;
- misstatements, misrepresentations and omissions;
- data inaccuracies;
- clear title/first-lien enforceability;
- compliance with laws and responsible lending practices; and
- single-family mortgage product eligibility.

Future Revisions to Rep and Warrant Framework

Fannie Mae publishes guidance to Fannie Mae's loan sellers through its Selling Guide, Lender Announcements, and Lender Letters to provide clarity to loan sellers regarding Fannie Mae's interpretation of each of these exclusions, including guidance on how Fannie Mae intends to enforce these exclusions. This guidance is subject to change at Fannie Mae's discretion. Future changes to such guidance and interpretations may be applied retroactively and therefore could be applied to the Reference Obligations.

The QC Review Process

In conjunction with the Rep and Warrant Framework, Fannie Mae increased the focus on post-purchase QC reviews earlier in the loan life cycle. Fannie Mae reviews a statistical random sample of newly acquired performing mortgage loans and Fannie Mae augments this random sample with targeted, discretionary sampling employing a number of technology tools and internal models to more accurately identify loans with characteristics that merit further scrutiny in discretionary reviews. The use of these tools or models may result in some lenders having a higher percentage of loans selected for review depending on the amount of data characteristics that indicate potential loan defects.

Fannie Mae's current objective is to complete comprehensive reviews on loans when the files are initially selected and reviewed. It is not Fannie Mae's intention to re-review the eligibility or underwriting of loans previously reviewed. This is particularly the case with respect to sampled performing loans for which the borrower subsequently meets the payment history requirements of the Rep and Warrant Framework. However, if at any time Fannie Mae obtains additional information that indicates that a violation of one of the life of loan selling representations and warranties may have occurred or if Fannie Mae otherwise determines it is appropriate, Fannie Mae may at its discretion request the related mortgage file or files for an additional quality control review.

In addition to conducting random and discretionary QC reviews on newly-acquired loans, Fannie Mae's current quality control process includes the completion of an electronic analysis of all defaulted loans that remain subject to a repurchase obligation on the part of the lender at the time of the default or, in the case of certain loans for which lender relief was granted at the time of acquisition, for a period of 36 months from acquisition. The objective is to determine if it is reasonable that a loan defect exists that will result in a request for repurchase. This electronic analysis may trigger referral to a specialist for a detailed review. Such analysis takes into account prior review experience, the nature and circumstances of the borrower default, the timing and prior payment history of the borrower, the current status of the loan or property and other data elements.

For loans that were not subject to Fannie Mae's quality control review and that first became delinquent after the borrower met the payment history requirements of the Rep and Warrant Framework, Fannie Mae may conduct a nonperforming quality control review if Fannie Mae becomes aware of information that would indicate a violation of one of the life of loan selling representations and warranties described above or if Fannie Mae otherwise determines it is appropriate.

If a loan seller or servicer declares bankruptcy, enters receivership, or is terminated by Fannie Mae, Fannie Mae may discontinue the selection and/or review of loans if Fannie Mae deems the probability of any future recoveries on such loans to be low. Fannie Mae has the right to move loan servicing from a servicer in order to ensure that Fannie Mae has a stronger counterparty responsible for the representations and warranties on loans Fannie Mae owns or guarantees.

Results of the QC Process

Fannie Mae refers to any loans that may have missing loan file documents or otherwise do not fully conform to all applicable underwriting requirements for such loan as having "**Loan File or Underwriting Errors**". Loan File or Underwriting Errors may be minor and insignificant to the performance of a loan or the value of the collateral securing the loan, or they may be significant. Fannie Mae refers to any Loan File or Underwriting Error or breach of a representation or warranty with respect to a loan that Fannie Mae determined to be significant enough to warrant issuing a repurchase, make-whole or other remedy request to the related loan seller or servicer and for which the related loan seller or servicer was unable to provide Fannie Mae with a sufficient rebuttal that warranted withdrawal of the repurchase request (or in the case of loans described in clauses (vii) and (viii) under "*Summary of Terms—The Reference Pool—Reference Pool Removals*", such errors or breaches that Fannie Mae determines would be significant enough to warrant issuing a repurchase request but for the circumstances specified in such clause (vii) or (viii), as applicable) as an "**Eligibility Defect**" and describe the portion of the random sample with Eligibility Defects as the "**Eligibility Defect Rate**." The Eligibility Defect Rate does not necessarily indicate how well Fannie Mae's mortgage loans ultimately will perform.

Fannie Mae uses the results of Fannie Mae's QC process to provide loan sellers with data and feedback about the quality of their loan origination processes. Fannie Mae engages loan sellers in frequent exchanges of information about trends in the quality of delivered loans and to inform loan sellers about Loan File or Underwriting Errors identified through the QC processes. Fannie Mae's goal in its QC processes and these exchanges is to identify loans with Loan File or Underwriting Errors earlier in their life cycle so Fannie Mae can provide timely feedback to loan sellers, which may lead to systemic improvements in the loan origination process.

As of September 30, 2019, the eligibility defect rate for Fannie Mae's single-family non-Refi Plus loan acquisitions made during the twelve months ended November 2018 was 0.46%. Fannie Mae continues to work with lenders to reduce the number of defects. As of September 30, 2019, Fannie Mae had issued repurchase requests on approximately 0.16% of the \$446.3 billion of unpaid principal balance of single-family loans delivered to Fannie Mae during the twelve months ended December 2018.

The Eligibility Defect Rate is based on the population of loans that are selected on a random basis for post-purchase QC review. In addition to random reviews, Fannie Mae selects loans for review on a discretionary basis. Types of reviews conducted on the discretionary selection population may include full underwriting and appraisal or

underwriting only reviews, as well as other more limited types of reviews such as compliance-only reviews, anti-fraud reviews, data discrepancy reviews and other targeted reviews.

See "*Risk Factors—Risks Relating to the Notes Being Linked to the Reference Obligations— Fannie Mae's Limited Review of a Sample of a Small Percentage of the Reference Obligations May Not Reveal All Aspects That Could Lead to Credit Events and Modification Events.*"

Scope of Quality Control

Fannie Mae's loan level post-purchase quality control reviews are designed to allow Fannie Mae to evaluate independently whether loans Fannie Mae has acquired meet Fannie Mae's underwriting and eligibility requirements, based on Fannie Mae's determinations regarding the borrowers' credit and income, the value of the properties collateralizing the loans and other factors. These reviews are based on a combination of the documents and information submitted to Fannie Mae by the loan sellers (the "**Review File**") together with information regarding the borrower and the property that Fannie Mae compiles itself. Fannie Mae's reviews of borrowers' credit include an analysis of the borrowers' income and expenses, debt ratios, assets and liabilities, credit scores and payment histories. In conducting its reviews, Fannie Mae relies on the loan documentation provided to Fannie Mae by loan sellers as well as information Fannie Mae develops from public records, employers, updated credit histories and other sources. Fannie Mae's reviews of property values are based on the appraisals submitted by loan sellers, Fannie Mae's data base of property information, including values of comparable properties near the subject property, and data bases of property values and market trends. The purpose of Fannie Mae's review of property values in the context of its loan level QC reviews is to confirm the adequacy of the properties to collateralize the risk Fannie Mae has incurred relative to the loans Fannie Mae has acquired. Fannie Mae's limited compliance reviews test for compliance with certain laws that may result in assignee liability or that restrict points and fees ("**Limited Compliance Reviews**"), but Fannie Mae does not examine all of the documents necessary to ensure that a mortgage loan complies with all applicable federal, state and local laws and regulations.

During the course of Fannie Mae's QC reviews, Fannie Mae may identify:

- Loan File or Underwriting Errors;
- breaches of selling representations or warranties, including instances of fraud or misrepresentation;
- breaches of the terms of applicable contract provisions; or
- servicing deficiencies that have had a materially adverse effect on the value of the mortgage loan or the acquired property.

If any of the foregoing are identified, Fannie Mae may require the repurchase of the loan(s). Fannie Mae provides loan sellers with an opportunity to re-evaluate loans Fannie Mae has requested them to repurchase and, as appropriate, to send additional information to Fannie Mae regarding the loans. Fannie Mae examines any additional information loan sellers provide within the prescribed time frames prior to making a final decision regarding a loan seller's obligation to repurchase loans.

None of the procedures conducted as part of Fannie Mae's reviews constitute, either separately or in combination, an independent underwriting of the mortgage loans. In addition, the procedures conducted as part of the review of the original appraisals are not re-appraisals of the mortgaged properties. To the extent that Fannie Mae uses valuation tools as part of the appraisal review process, they should not be relied upon as providing an assessment of value of the mortgaged properties comparable to that which an appraisal might provide. They also are not an assessment of the current value of any of the mortgaged properties.

Fannie Mae's post-purchase loan level reviews are not designed or intended to evaluate the loan seller's origination processes, the completeness of the loan seller's documentation, the effectiveness of the loan seller's QC procedures or the compliance of the loans with all applicable laws and regulations; Fannie Mae separately evaluates these in Fannie Mae's on-site Mortgage Origination Risk Assessment reviews and Fannie Mae's oversight of loan sellers' QC programs. See "*Loan Seller and Servicer Management and Oversight – Additional Monitoring of Loan Sellers*".

QC File Request and Submission Requirements

Loan sellers are notified which mortgage loans Fannie Mae has selected for QC review via written or electronic notification.

Loan sellers must maintain a complete mortgage loan file, including all documents used to support the underwriting decision. Upon Fannie Mae's request, loan sellers must provide copies of the complete mortgage loan file, as described in the request. Loan sellers must send the requested documentation for an underwriting or servicing review within 30 days after Fannie Mae notifies such loan seller that it has selected a mortgage loan for review. Fannie Mae, in its sole discretion, may request the documentation in a shorter or longer period of time based upon circumstances at the time.

Fannie Mae will make an effort to work with loan sellers when extenuating circumstances prevent them from delivering documentation in a timely manner. However, if a loan seller delays in providing the requested information, Fannie Mae, in its sole discretion, may require indemnification or repurchase (depending on the circumstances of the individual case) in respect of these mortgage loans. When a loan seller has a pattern of extensive delays or unresponsiveness, Fannie Mae may consider this a breach of contract and consider other actions against such loan seller, up to and including termination.

QC Report of Findings

Fannie Mae evaluates the mortgage loan file with the primary focus of confirming that the mortgage loan meets underwriting and eligibility requirements. A mortgage loan is ineligible if errors or failures are uncovered in the file that would have resulted in Fannie Mae's refusal to purchase the mortgage loan on the terms delivered had the facts been known at the time of acquisition.

Fannie Mae provides loan sellers with ongoing feedback about their overall QC performance. The level of detail provided to each loan seller varies, but may include identifying defect types, reporting on frequent or common defects, and describing quality trend analyses and Loan File or Underwriting Errors identified through the QC review process. This information is provided through a variety of methods that range from regular electronic transmissions to more formal periodic discussions.

When Fannie Mae identifies a defective mortgage loan, Fannie Mae may, in its sole discretion, impose a condition to retaining the loan, such as requiring the loan seller to agree to an alternative remedy to repurchase (for example, executing a recourse agreement). In some cases, Fannie Mae will issue a repurchase request to the lender. The defects that give rise to a repurchase or alternative to repurchase consist of errors or failures that Fannie Mae identifies as significant.

Appeal of QC Review Decisions

A loan seller may submit a written appeal of Fannie Mae's repurchase request or repurchase alternative request within 60 days of its receipt (or other specified time). If the appeal is denied and the loan seller has additional material information, the loan seller may submit a second appeal in writing within 15 days from the date of the denial letter (or other specified time). If the loan seller appeals the repurchase or repurchase alternative request and Fannie Mae denies the appeal(s), the loan seller, subject to the impasse and management escalation processes described below, within 15 days from the date of the final denial letter (or other specified time), must complete the repurchase of the mortgage loan or property or submit the signed recourse agreement or fee payment in lieu of repurchase. If the repurchase involves an active loan that will be involved in a servicing transfer, notify Fannie Mae of the name of the new servicer and the date of the servicing transfer.

If, at the conclusion of the appeal process, the loan seller wishes to continue challenging the repurchase request, the loan seller may initiate the impasse process and/or management escalation process, during which Fannie Mae and the loan seller attempt to resolve the dispute through direct conversations or escalation to senior management. In February 2016, Fannie Mae announced jointly with Freddie Mac the Independent Dispute Resolution (IDR) process, which offers a neutral third party to resolve repurchase requests that remain unresolved after the appeal, impasse process and escalation processes have been exhausted.

Loan Remediation Process

Repurchases

A defective mortgage loan identified through Fannie Mae's QC process may result in loan repurchases, recourse agreements, indemnification, make-whole payments, fees in lieu of repurchase, or alternative remedial actions.

Breach of a loan seller's representation or warranty or other violation of the Lender Contract will give rise to Fannie Mae's ability to issue a repurchase request or, if the property has been liquidated, a fee in lieu of repurchase request, or a make-whole request to the loan seller.

If a mortgage loan was repurchased by a loan seller, and the repurchased loan is subsequently made compliant with Fannie Mae's current standards, the loan may be redelivered to Fannie Mae, at its sole and absolute discretion, on a negotiated basis. In the event that a mortgage loan is deemed ineligible for redelivery or rejected by Fannie Mae upon redelivery, any future losses incurred after repurchase are the responsibility of the loan seller. A redelivered loan would not be included in the Reference Pool since the Reference Pool is fixed and since a redelivered loan would be considered a new delivery.

Alternatives to Repurchases

In certain circumstances, Fannie Mae may provide the loan seller with an alternative to the immediate repurchase of a mortgage loan that does not meet Fannie Mae's requirements. In each such case, Fannie Mae will notify the loan seller of the type and terms of the repurchase alternative. The alternatives may include any one or more of the following, as determined by Fannie Mae in its sole discretion:

- (i) Recourse – agreement by loan seller to provide recourse for life of loan or other specified period. At Fannie Mae's discretion, Fannie Mae may require loan seller's obligation to be secured by specified collateral.
- (ii) Indemnification – agreement by loan seller to indemnify Fannie Mae for any losses, costs, etc. on the mortgage loan. At Fannie Mae's discretion, Fannie Mae may require loan seller's obligation to be secured by specified collateral.
- (iii) Loss share – agreement between Fannie Mae and loan seller to each pay a specified proportion of any future losses on the mortgage loan.
- (iv) Loss reimbursement – agreement by loan seller to reimburse Fannie Mae for specified losses on the mortgage loan.
- (v) Fee in lieu of repurchase – payment by loan seller to compensate Fannie Mae for increased risk of holding the mortgage loan.
- (vi) Conditional recourse/partial indemnification – agreement by loan seller to provide recourse or indemnification on the mortgage loan subject to one or more specified conditions.
- (vii) A combination of two or more of the above.

Mortgage loans that are subject to a remedy described in clauses (i)-(v) or (vii) above are not eligible for initial inclusion in the Reference Pool. If a remedy described in clauses (i)-(v) or (vii) above is imposed after a loan has been included in the Reference Pool, Fannie Mae will remove such loan from the Reference Pool. A pricing adjustment (described below) or conditional recourse/partial indemnification commitment from a loan seller will not trigger the removal of a Reference Obligation from the Reference Pool.

Fannie Mae may also identify loans with data errors as part of its QC review. If such loan is otherwise eligible for sale to Fannie Mae, Fannie Mae will not require the lender to repurchase the loan; however, Fannie Mae may collect a price adjustment, which is a fee from the lender to compensate Fannie Mae for the data discrepancy based on the pricing that would have been charged had the true and accurate facts been known at the time of purchase.

Certain repurchase alternatives may be available only to a loan seller that is in good standing with Fannie Mae, that is in a strong financial condition acceptable to Fannie Mae, and that otherwise is able and willing to comply with other provisions of the Lender Contract, including Fannie Mae's eligibility criteria. If the servicing of a mortgage has been transferred to a loan seller other than the loan seller that sold the mortgage loan to Fannie Mae, eligibility for this benefit will be based on an evaluation of the new loan seller. In determining a loan seller's eligibility for this repurchase alternative, Fannie Mae will evaluate the following:

- the quality of the mortgage loans for which the loan seller has the selling and/or servicing representations and warranties, as measured by comparing the delinquency rates for comparable portfolios;
- the quality of the servicing performance, as measured by the loan seller's loss mitigation activities; and
- the overall financial strength of the loan seller, as reflected in the loan seller's annual financial statements and any other periodic financial reports the loan seller submits to Fannie Mae.

Fannie Mae also will periodically assess the loan seller's ongoing underwriting performance and contingent repurchase exposure (i.e., the loan seller's repurchase risk exposure in relation to its financial ability). When appropriate, Fannie Mae may change the loan seller's eligibility status for a repurchase alternative.

Payment of Repurchase Proceeds

The loan seller must pay Fannie Mae the funds that are due in connection with a repurchase, full indemnification or fee in lieu of repurchase request within 60 days of request (or within 15 days after Fannie Mae has affirmed the demand after an appeal).

Loan Seller Quality Control Requirements

General

A loan seller is required to establish its own set of standards for loan quality. The standards define the loan seller's credit culture and aid in the development of the appropriate controls necessary to ensure that the mortgage loans originated and closed by the loan seller are Fannie Mae-investment quality. The loan seller must also develop and maintain a QC program that defines its standards for loan quality and establishes processes designed to achieve those standards throughout its entire origination business. The program must include reporting results of the quality reviews to the loan seller's senior management, who must prescribe actions addressing and remediating defects discovered in the loan seller's review process. A loan seller that fails to maintain effective QC systems and processes will be in breach of its contractual obligations with Fannie Mae.

A loan seller must determine the appropriate balance among pre-funding, post-closing and contractor-performed QC reviews. For example, if a loan seller identifies a particular source of business as high-risk based on the mortgage loan product or type of origination, it may decide to conduct pre-funding reviews for a sample of such mortgage originations. There is no single, optimal QC plan appropriate to every loan seller. Therefore, Fannie Mae encourages each loan seller to use a broad risk-management perspective in developing and changing its QC approach.

Pre-funding QC

A loan seller's written QC plan must include a process for reviewing a sampling of its loans prior to funding. Reviews performed prior to funding provide important and timely feedback to the origination staff and may prevent closing mortgage loans with substantial defects such as misrepresentation, inaccurate data or inadequate documentation. Fannie Mae requires that the loan seller have procedures for reporting defects identified in the review to its senior management and those parties responsible for resolving such defects and an action plan that includes documenting the resolution of the defects.

Post-Closing QC

A loan seller's written QC plan must also include its processes for evaluating and monitoring the overall quality of its mortgage production and its re-verification procedures. With limited exceptions for loans with data validated through the DU validation service, the loan seller must re-verify the accuracy and integrity of the information used to support the lending decision for any mortgage loans selected for a QC review. For loans underwritten through DU, the loan seller must validate the integrity of the loan file data and confirm that any conditions for approval were satisfied and any "potential red flag" messages were addressed and documented. For manually underwritten loans, the loan seller must determine that the mortgage loan was properly underwritten and that sound underwriting judgments were made in accordance with Fannie Mae's guidelines and requirements.

Contractor-Performed QC Reviews

A loan seller may outsource its QC processes; however, Fannie Mae holds the loan seller fully accountable for the work performed by its contractors. The loan seller must establish a process for reviewing the contractor's work, have procedures to address findings identified in the reviews and implement corrective actions within the loan seller's and contractor's organizations. The loan seller must ensure that the contractor's staff members possess the qualifications and experience required to provide quality reviews and analysis. The loan seller's QC process must include processes for reviewing the contractor's work to ensure that the lender's requirements and guidelines are applied consistently and that the review results accurately reflect the quality of the lender's loan originations. The

lender must perform a monthly review of a minimum of 10% of the loans reviewed by the contractor to validate the accuracy and completeness of the vendor's work. The 10% sample must include loans for which the vendor identifies defects and for which no defects were identified. The review must be performed by the lender itself and may not be contracted out.

Reporting Requirements

QC review results are required to be reported on a regular basis to the loan seller's senior management within 30 days after the review is completed. The loan seller must have procedures in place requiring response to, and resolution of, findings identified in the QC review process. The loan seller is also required to promptly notify Fannie Mae of any misrepresentation or breach of a selling warranty, including fraud. In addition, any fraudulent activities by loan sellers, contractors, or brokers must be reported to Fannie Mae immediately. Fannie Mae may perform additional audits as needed.

Audit Review of the QC Process

Each loan seller must have an audit process to ensure that its QC process and procedures are followed by the QC staff, and that assessments and conclusions are recorded and consistently applied. The findings must be accurately recorded and consistent with the defects noted in the loan seller's system of record. Results of the QC audit must be distributed to senior management, who must distribute the results to the appropriate areas within the organization and establish an action plan for remediation or changes to policies or processes, if appropriate.

Ongoing Surveillance and Feedback

General

Fannie Mae has built an integrated framework to evaluate detailed information regarding loan sellers, their operating controls and efficiencies, the quality of their loan and data deliveries to Fannie Mae, the performance of the loans Fannie Mae acquires from them and the results of Fannie Mae's review of their loans and quality control procedures. Fannie Mae has dedicated QC specialists that provide loan sellers with ongoing feedback about their overall loan and QC performance. The level of detail provided to each loan seller varies, but may include identifying defect types, reporting on frequent or common defects and describing quality trend analyses and Loan File or Underwriting Errors identified through the QC review process. This information is provided through a variety of methods that range from regular electronic transmissions to more formal periodic discussions. In addition, in some cases, Fannie Mae holds periodic on-site meetings with Fannie Mae's loan sellers, including the loan seller's senior management, to provide in depth feedback about their overall performance and the quality of their loans. These on-site meetings may occur periodically for Fannie Mae's largest loan sellers and as needed for the other sellers, depending on Fannie Mae's evaluation of the other loan sellers and the performance of the loans Fannie Mae acquires from them.

To manage the post-purchase review process, Fannie Mae has launched Loan Quality Connect, an interactive system in which Fannie Mae and Fannie Mae's loan sellers work together to drive loan quality. This state-of-the-art platform replaces the Quality Assurance System (QAS) and several other processes. Loan Quality Connect allows for seamless collaboration and increased certainty in the post-purchase QC.

Loan Seller Training and Feedback

Based on topics identified in Fannie Mae's QC review feedback, QC specialists interface directly with loan sellers to identify and help to remediate findings, defects and trends that are occurring in the loan seller's QC process. QC specialists also provide analysis and recommendations related to the quality of a loan seller's loan and origination processes to be used as an input for Fannie Mae's account teams and risk managers during executive engagement with the loan seller.

Fannie Mae provides ongoing instruction through one-on-one consultation and online webinars on doing business with Fannie Mae. Because personnel, guidelines and policies change over time, Fannie Mae provides regular online training sessions to inform loan sellers of these changes. Fannie Mae further shares best practices in QC, risk management and operational risk techniques. Fannie Mae also provides a series of live training sessions called QC Boot Camp where lenders attend a day and a half of in-depth training on Fannie Mae's QC requirements and best practices. The Training Resources Catalog located at <https://www.fanniemae.com/singlefamily/originating->

underwriting-training offers a collection of resources that is available to loan sellers. *Beyond the Guide* and the Quality Control Self-Assessment Tool offer loan sellers additional recommendations for enhancing QC efforts beyond the minimum standards reflected in the Selling Guide. These recommendations include approaches that may prevent Loan File or Underwriting Errors in the origination process. Fannie Mae also conducts annual QC sessions for intensive in-person training on Fannie Mae's lender QC requirements.

Loan Performance Monitoring

A mortgage analytics team produces and monitors reporting on Fannie Mae's loan acquisitions. Early and later warning reports compare actual loan performance against expected performance. The mortgage analytics team reviews cohorts by risk attributes and loan sellers to look for areas of the business that are performing worse than expected. The customer account risk managers use these reports and metrics to engage routinely with Fannie Mae's largest loan sellers to discuss early performance trends and acquisition profiles versus national averages. In addition, loan acquisition and performance trends are reviewed at periodic intervals by senior management on an ongoing basis. Based on the above analysis, Fannie Mae's risk and policy teams conduct inquiries on underperforming segments of business to determine if any actions are needed. Such actions may include making changes to Fannie Mae's underwriting guidelines or eligibility criteria, making changes to Desktop Underwriter®, enacting additional upfront controls and providing additional loan seller monitoring or training.

Servicing Standards

General

Generally, the servicing of the mortgage loans that are held in Fannie Mae's mortgage portfolio or that back its MBS is performed by servicers on Fannie Mae's behalf. Loan sellers who sell single-family mortgage loans to Fannie Mae may service these loans for Fannie Mae or the loans may be serviced by other entities, including special servicers retained by Fannie Mae. For loans Fannie Mae owns or guarantees, the loan seller or servicer must obtain Fannie Mae's approval before selling servicing rights to another servicer. All servicers of Fannie Mae loans must be approved by Fannie Mae.

Fannie Mae's servicers typically collect and remit principal and interest payments, administer escrow accounts, monitor and report delinquencies, perform default prevention activities, evaluate transfers of ownership interests, respond to requests for partial releases of security, and handle proceeds from casualty and condemnation losses. Fannie Mae's servicers are the primary point of contact for borrowers and perform a key role in the effective implementation of Fannie Mae's homeownership assistance initiatives, negotiation of workouts of troubled loans and other loss mitigation activities. If necessary, servicers inspect and preserve properties and process foreclosures and bankruptcies. Because Fannie Mae generally delegates the servicing of its mortgage loans to servicers and does not have its own servicing function, Fannie Mae's ability to directly manage troubled loans that it owns or guarantees is limited.

Fannie Mae compensates servicers primarily by permitting them to retain a specified portion of each interest payment on a serviced mortgage loan as a servicing fee. Servicers also generally retain prepayment premiums, assumption fees, late payment charges and other similar ancillary charges, to the extent they are collected from borrowers, as additional servicing compensation. Fannie Mae also compensates servicers for completing workouts on delinquent loans.

Servicer Eligibility

Fannie Mae-approved servicers must demonstrate the following resources and capabilities:

- **Experience:** escrow management, general servicing, investor reporting, custodial funds, default management and quality control.
- **Written procedures:** fully-documented procedures that address all aspects of performing loan servicing, delinquency prevention, default servicing and foreclosure management.
- **Quality assurance:** quality assurance processes that are designed, documented and implemented to ensure servicing practices comply with Fannie Mae's requirements.
- **Staffing and training:** staffing levels and training to support acceptable performance standards.
- **Procedures for escalated cases:** comprehensive processes and written procedures to promptly respond to escalated cases.

- **Master/subservicer responsibilities:** where applicable, comprehensive processes and written procedures for subservicer selection, oversight, performance assessment and compliance monitoring.
- **Risk Management & Controls:** comprehensive risk identification, mitigation and remediation processes; including appropriate regulatory and legal compliance frameworks.

Fannie Mae communicates standard requirements for all servicers through the Servicing Guide, written announcements, lender letters and servicer notices.

Servicer Compliance Oversight and Performance Management

Fannie Mae's servicers are required to develop, follow and maintain written procedures relating to loan servicing and legal compliance in accordance with Fannie Mae's Servicing Guide and applicable law. Servicers are also required to employ staff trained and experienced and in mortgage collection techniques. A servicer may also hire subservicers and other vendors to conduct these activities on its behalf and, in some circumstances, Fannie Mae may require a servicer to do so if Fannie Mae reasonably believes that servicer is not adequately equipped to conduct default servicing and loss mitigation.

Fannie Mae oversees servicer compliance with its Servicing Guide requirements and execution of its loss mitigation programs by conducting servicer compliance reviews, which involve a combination of loan-level and procedural compliance testing. These reviews are designed to test a servicer's quality control processes and compliance across key servicing functions. Issues identified through these compliance reviews are provided to the servicer with prescribed corrective actions and expected resolution due dates, and Fannie Mae monitors servicers' remediation of their compliance issues.

Performance management staff measure, monitor and manage overall servicer performance by:

- providing monthly or quarterly loss mitigation workout goals to servicers;
- discussing performance against each goal and tracking action items to improve; and
- following up on remediation of findings identified from compliance reviews.

Subject matter experts work with targeted servicers on a consulting basis to improve performance through effective collections, modifications, short sales, deeds-in-lieu of foreclosure, bankruptcy monitoring, foreclosure processing, and loan reporting. All servicers are also supported by Fannie Mae's Servicing Support Center, which answers routine policy and process questions, and offers training resources.

Additionally, Fannie Mae employs a servicer performance management program called the STARTM Program, which provides Fannie Mae's largest servicers a transparent framework of key metrics and operational assessments to recognize strong performance and identify areas of weakness. The framework also identifies best practices and is designed to create motivation for servicers to improve their performance. The STARTM Program reference guide and STAR Performance Scorecard White Paper communicate how servicers will be measured. Monthly operational and credit scorecards help servicers understand their performance relative to peers. Operational assessments of STARTM Program servicers are conducted across all key servicing functions, with heavy emphasis on ensuring process reliability. STARTM Program recognition as a STAR Performer is issued to eligible servicers annually based on the correlation between how servicers performed on the STARTM Program metrics and their operational effectiveness. Fannie Mae also actively monitors the performance of servicers who do not participate in the STAR Program through regular performance assessment and tracking.

Incentive fees for servicers include tiered amounts tied to the timing of completing loss mitigation solutions with homeowners. Repercussions for poor performance include lost incentive income, reduced opportunity for STARTM Program recognition, compensatory fees, monetary and non-monetary remedies, performance improvement plans and servicing transfers.

Fannie Mae also seek to improve the servicing of its loans through a variety of means, including sharing best practices and training of its servicers, directing servicers to proactively contact borrowers at the earliest stages of delinquency, improving their written and telephone communications with borrowers, and holding its servicers accountable for compliance with its Servicing Guide.

Delinquent Loan Management

Fannie Mae's servicers are the primary points of contact for borrowers and perform a vital role in Fannie Mae's efforts to resolve defaults by pursuing workout options. Fannie Mae's management strategies are primarily focused on resolving defaults by pursuing foreclosure alternatives to attempt to minimize the severity of the losses Fannie Mae incurs. If a borrower does not make required payments, or is in jeopardy of not making payments, servicers evaluate the borrower for a workout solution following a mandatory evaluation hierarchy that is based on whether the borrower is experiencing a temporary or permanent hardship. The hierarchy requires servicers to first evaluate the borrower for eligibility for a home retention solution prior to a liquidation solution, which minimizes the likelihood of foreclosure as well as the severity of loss. Fannie Mae's home retention solutions include loan modifications, repayment plans and forbearances. Liquidation solutions include short sales and deeds-in-lieu of foreclosure. When retention solutions and liquidation solutions are no longer viable for a homeowner's circumstances, Fannie Mae's servicers seek to conclude the foreclosure process in an expeditious manner.

Fannie Mae's loss mitigation strategy emphasizes early intervention by servicers to address mortgage loan delinquency and provide alternatives to foreclosure. The servicer must attempt to determine the reason for the delinquency, whether it is temporary or permanent in nature and the borrower's ability to repay the debt. The servicer is required to contact a delinquent borrower to discuss with the borrower the options for resolving the delinquency and, as appropriate, obtain a commitment from the borrower to resolve the delinquency. Servicers are required to send a late payment notice no later than the 17th day of delinquency and must begin outbound contact attempts no later than the 36th day of delinquency. The servicer is authorized to conduct outbound contact attempts prior to the 36th day of delinquency and to use its own methodology or borrower behavioral models to determine when outbound contact attempts should begin prior to the 36th day of delinquency. Contact attempts must continue every seven days beginning on the 36th day of delinquency until contact is made, a borrower response package is received, or the delinquency status is resolved.

Loan workout activities are a key component of Fannie Mae's loss mitigation strategy for managing and resolving troubled assets and lowering credit losses. Fannie Mae provides its servicers with default management tools designed to help them manage delinquent mortgage loans and mortgage loans that, even if current, are at risk of imminent default. Fannie Mae's automated loss mitigation decisioning system, Servicing Management Default Underwriter (SMDU), determines whether a loan is at risk of imminent default, provides the servicer with preferred workout options, including modifications, for delinquent loans consistent with Fannie Mae policy based on a borrower's individual financial circumstances, and simplifies the execution of these options.

Fannie Mae's goal is to assist borrowers in maintaining home ownership where possible, or facilitate liquidation solutions when continued homeownership is not an option. Fannie Mae requires its servicers to follow a standardized evaluation hierarchy of workout options with the intention of determining and delivering the right kind of assistance needed to resolve the particular borrower's distress and minimize losses based on the nature of the hardship. Fannie Mae's loan workouts include:

- *Forbearance agreements*, where reduced payments or no payments are required during a defined period. Forbearance agreements provide additional time for the borrower to return to compliance with the original terms of the mortgage loan or to implement another loan workout. In the case of material property damage due to earthquake, flood or hurricane or caused by a person or event beyond the borrower's control, it may be appropriate for the loan servicer to offer a forbearance agreement after reviewing the borrower's circumstances. Generally, the initial term of forbearance may be granted for three to six months from the date of the first reduced or suspended payment. Fannie Mae's written approval is required for forbearance that extends cumulatively beyond 12 months.
- *Repayment plans*, which are contractual plans to make up past due amounts for a period generally within six months while continuing to make the current contractual payment. These plans, offered after the hardship is resolved, assist borrowers in returning to compliance with the original terms of their mortgage loan upon completion of the plan.
- *Loan modifications*, which involve changing the terms of the mortgage loan and may include capitalizing outstanding amounts such as delinquent interest, to the unpaid principal balance of the mortgage loan, reducing the interest rate, and extending the loan term or maturity date. Fannie Mae may grant partial principal forbearance in connection with loan modifications. Principal forbearance is a change to a loan's terms to designate a portion of the principal as non-interest-bearing and non-amortizing; the designated portion of principal then becomes payable at the new maturity date, or upon the sale or transfer of the property, refinance, or payment of the interest-bearing principal balance. Fannie Mae has several loan modification programs. Servicers are provided direction on when and

how to offer the various modification programs that are available based on the borrower's eligibility, including consideration of any hardship or financial documentation factors. See "*Loan Modifications*" below.

- *Short sales*, which involve allowing the borrower of a delinquent loan to sell the mortgaged property to an unrelated third party for fair market value in an amount that is insufficient to pay off the mortgage loan in full. Under Fannie Mae's standard short sale program, servicers are able to determine whether a borrower is eligible to complete a short sale. All short sale offers are submitted to Fannie Mae for review and decision. This allows Fannie Mae to expedite timelines, reduce the likelihood of fraud and significantly increase Fannie Mae's recovery compared to traditional short sale methods. Under certain circumstances, the borrower is required to make a cash or note contribution to reduce the losses on the mortgage loan. When an approved short sale is complete the mortgage note is cancelled, the lien of the mortgage is released and the borrower may be paid an amount to assist with relocation. In most cases, after completion of an approved short sale, the borrower has no further obligation to make payments under the mortgage note. Short sales may also be approved for a borrower who is current but is determined to be in imminent payment default. See "*Foreclosure Alternatives*" below.
- *Deeds in lieu of foreclosure*, which involve the conveyance of the mortgaged property directly to Fannie Mae by the borrower. See "*Foreclosure Alternatives*" below.
- *Mortgage assumptions*, which involve a new party assuming the obligations of the borrower under the mortgage note and may be performed in connection with a loan modification. If the former borrower requests a release of liability, the servicer evaluates the new party for its ability to pay the mortgage loan (as modified, if applicable) based on Fannie Mae's standard underwriting criteria before allowing the assumption.

If a loan workout has not been reached by the 121st day of delinquency, Fannie Mae generally requires the servicer to accelerate the debt from the borrower and initiate foreclosure proceedings in accordance with the provisions of Fannie Mae's Servicing Guide and applicable law. However, Fannie Mae also authorizes the servicer to continue to pursue loss mitigation alternatives to resolve the delinquency before the conclusion of the foreclosure proceedings. If, after demand for acceleration, a borrower pays all delinquent amounts, agrees with Fannie Mae to accept an arrangement for reinstatement of the mortgage (including through any applicable loan modification) or arranges for the sale or conveyance of the mortgaged property to a third party or Fannie Mae, the servicer may terminate the foreclosure proceedings. If the borrower again becomes delinquent, Fannie Mae pursues workout options prior to making a new demand for acceleration and the servicer will commence new foreclosure proceedings. See "*Certain Legal Aspects of the Reference Obligations—Foreclosure.*"

In recognition of the fact that mortgage loans that are delinquent are at higher risk for abandonment by the borrower, and may also face issues related to the maintenance of the mortgaged property, Fannie Mae has developed guidelines for servicers with respect to inspecting certain properties for which a monthly payment is delinquent. Depending on various factors, such as the ability to contact the customer, the delinquency status of the mortgage loan, and the property occupancy status, a servicer may hire a vendor to inspect the related property to determine its condition. If the inspection indicates the property is vacant and abandoned and in need of property safeguarding measures, such as securing or winterizing, the servicer will ensure the appropriate safeguards are implemented in accordance with industry and legal standards, as well as Fannie Mae's own requirements, including its allowable expense limits.

Loan Modifications

Servicers are delegated with the authority to implement Fannie Mae's home retention and foreclosure prevention initiatives in accordance with the Servicing Guide. Loan modifications involve changes to the original mortgage terms such as product type, interest rate, amortization term, maturity date and/or unpaid principal balance. To assist in achieving modifications that result in affordable payment for the borrower, Fannie Mae may ultimately collect less than the contractual amount due under the original loan. Other resolutions and modifications may result in Fannie Mae's receiving the full amount due, or certain installments due, under the loan over a period of time that is longer than the period of time originally provided for under the terms of the loan.

After a servicer determines that the borrower's hardship is not temporary in nature or the temporary hardship has not been resolved, Fannie Mae requires that servicers first evaluate borrowers for eligibility under a workout option before considering foreclosure. Fannie Mae's primary loan modification solution is called Flex Modification. Not all borrowers facing foreclosure will be eligible for a modification. Borrowers who do not qualify for a

modification or who fail to successfully complete the required trial period plan may be provided with a foreclosure prevention alternative, such as a short sale or deed-in-lieu of foreclosure.

Program guidance for the majority of Fannie Mae's modifications directs servicers to convert trial modifications to permanent modifications after three or four consecutive trial period payments are made successfully. Fannie Mae completed 99,140 modifications in the twelve months ended December 31, 2018. As of September 30, 2019, there were approximately 13,200 loans in trial modification periods.

There is significant uncertainty regarding the ultimate long term success of Fannie Mae's modification efforts. Fannie Mae believes the performance of its workouts will be highly dependent on economic factors, such as unemployment rates, household wealth and income, and home prices. Modifications, even those with reduced monthly payments, may also not be sufficient to help borrowers with second liens and other significant non-mortgage debt obligations. FHFA, other agencies of the U.S. government or Congress may ask Fannie Mae to undertake new initiatives to support the housing and mortgage markets should Fannie Mae's current modification efforts ultimately not perform in a manner that results in the stabilization of these markets.

Foreclosure Alternatives

In addition, Fannie Mae continues to focus on foreclosure alternatives for borrowers who are unable to retain their homes. Foreclosure alternatives may be more appropriate if the borrower has experienced a significant adverse change in financial condition due to events such as unemployment or reduced income, divorce, or unexpected issues like medical bills and is therefore no longer able to make the required mortgage payments. To avoid foreclosure and satisfy the first-lien mortgage obligation, Fannie Mae's servicers work with a borrower to sell the home prior to foreclosure in a short sale, whereby the borrower sells the home for less than the full amount owed to Fannie Mae under the mortgage debt, or to accept a deed-in-lieu of foreclosure, whereby the borrower voluntarily conveys title to the property to Fannie Mae. These alternatives are designed to reduce Fannie Mae's credit losses while helping borrowers avoid having to go through a foreclosure. Fannie Mae works to obtain the highest price possible for the properties sold in short sales and, in 2018, Fannie Mae received aggregate net sales proceeds from its short sale transactions representing approximately 77% of the aggregate unpaid principal balance of the mortgage loans secured by the properties sold in those transactions, compared with aggregate net sales proceeds representing approximately 75% in 2017. The existence of a second lien may limit Fannie Mae's ability to provide borrowers with loan workout options, particularly those that are part of Fannie Mae's foreclosure prevention efforts; however, Fannie Mae is not required to contact a second lien holder to obtain their approval prior to providing a borrower with a loan modification.

Non-Performing Loan Sales

FHFA has issued requirements regarding the sale of non-performing loans which are intended to encourage Fannie Mae and Freddie Mac to pursue third-party sales of seriously-delinquent loans while promoting broad buyer participation and borrower protection. Broadly, the requirements are intended to promote the transfer of the risk of loss associated with owning seriously-delinquent loans to the private sector, reduce the overall number of loans held in the Fannie Mae and Freddie Mac portfolios in keeping with portfolio reduction targets in the Senior Preferred Stock Purchase Agreement, and improve borrower and neighborhood outcomes. Among other FHFA requirements, buyers of non-performing loans must identify their servicing partners, demonstrate a history of successful resolution of non-performing loans and are required to offer loan modifications to borrowers and provide alternatives to foreclosure whenever possible, including in certain limited cases of underwater properties, principal forgiveness. If foreclosure cannot be prevented, property sales to owner-occupants and not-for-profit agencies must be prioritized. Successful bidders are prohibited from simply abandoning properties and must sell or donate them to an organization willing to take them. Fannie Mae works to sell these loans to investors, not-for-profit organizations and public sector organizations. In addition, when selling non-performing loans, Fannie Mae offers both larger and smaller pools that may be more attractive to smaller investors, not-for-profit organizations and minority- and women-owned businesses. Fannie Mae brings pools of non-performing loans to the market periodically in its discretion and the frequency of such sales is likely to decline as its portfolio of such loans declines. Fannie Mae considers a number of factors in determining whether to sell seriously-delinquent loans to third parties, including its capital position, the impact of such sales on applicable portfolio limits and the extent of credit protection it has on such loans from risk sharing transactions or other sources. See "*Risk Factors — Federal Housing Policy Objectives Adopted by Fannie Mae May Not Be Aligned With the Interests of the Noteholders*" for a discussion of how enhanced non-performing loan sale requirements may increase the risk of loss on the Notes.

Bankruptcy

When a borrower files for bankruptcy, the servicer's options for recovery are more limited. The servicer monitors bankruptcy proceedings and develops appropriate responses based on a variety of factors, including: (i) the chapter of the U.S. Bankruptcy Code under which the borrower filed; (ii) the federal and local bankruptcy rules; (iii) motion requirements; and (iv) specific orders issued through the applicable court. In general, when a borrower who has filed for bankruptcy protection becomes delinquent or defaults under the terms of the mortgage note, bankruptcy payment requirements, or terms of the bankruptcy plan, Fannie Mae instructs servicers to engage counsel to file a motion for relief from stay that will allow the servicer to commence foreclosure proceedings. Servicers report information about borrowers and mortgage loans affected by a bankruptcy proceeding to Fannie Mae on a periodic basis. Borrowers who have filed bankruptcy are generally eligible for Fannie Mae's loan workout alternatives, which may require court approval in certain circumstances.

Foreclosure

The servicer is responsible for conducting any required foreclosures beginning with sending appropriate pre-foreclosure notices, referring the mortgage to foreclosure counsel, instructing and supervising foreclosure counsel during the foreclosure process and participating in the foreclosure sale. If a third party (someone other than the mortgagee or the borrower or their representatives) purchases the mortgaged property at the foreclosure sale, the servicer has the responsibility for remitting the foreclosure sale proceeds to Fannie Mae. If the servicer bids at the foreclosure sale in an amount as instructed by Fannie Mae and is the winning bidder, then the servicer is responsible for reporting the acquisition of the REO to Fannie Mae and vesting clear title to the property in Fannie Mae.

Delinquent Loan Statistics

The following table displays the delinquency status of loans in Fannie Mae's single-family conventional guaranty book of business (based on number of loans) as of the dates indicated.

| | As of | | |
|--|-------------------------------|------------------------------|-------------------------------|
| | September 30, 2019 | December 31, 2018 | September 30, 2018 |
| Delinquency status: | | | |
| 30 to 59 days delinquent | 1.28% | 1.37% | 1.52% |
| 60 to 89 days delinquent | 0.35% | 0.38% | 0.37% |
| Seriously delinquent | 0.68% | 0.76% | 0.82% |
| Percentage of seriously delinquent loans that have been delinquent for more than 180 days | 50% | 49% | 53% |
| Percentage of seriously delinquent loans that have been delinquent for more than two years | 11% | 12% | 13% |

Fannie Mae's single-family serious delinquency rate decreased as of September 30, 2019 compared with September 30, 2018, primarily driven by improved loan payment performance and the sale of nonperforming loans.

Fannie Mae publishes information in its quarterly financial supplements about the credit performance of the single-family mortgage loans that back its guaranteed MBS. Fannie Mae's most recent financial supplement can be accessed at:

http://www.fanniemae.com/resources/file/ir/pdf/quarterly-annual-results/2019/q32019_financial_supplement.pdf

REO Property Management and Valuation

If a loan defaults and Fannie Mae acquires a home through foreclosure or a deed-in-lieu of foreclosure, Fannie Mae markets and sells the home through local real estate professionals. Fannie Mae's full range of credit risk management capabilities include Fannie Mae's valuation, sales strategy, and fulfillment operations to maintain and

improve properties for sales. Fannie Mae's real estate strategy is to minimize loss severities by maximizing sales prices, supporting neighborhood stabilization, and minimizing carrying costs.

In some cases, Fannie Mae engages in a third party sale at foreclosure, which allows Fannie Mae to avoid maintenance and other REO expenses it would have incurred had it acquired the property.

Fannie Mae currently leases properties to tenants who occupied the properties before Fannie Mae acquired them into its REO inventory and to eligible borrowers who executed a deed-in-lieu of foreclosure. As of December 2018, approximately 350 tenants leased Fannie Mae's REO properties.

Fannie Mae continues to manage its REO inventory to appropriately control costs and maximize sales proceeds. A significant portion of Fannie Mae's REO properties are unable to be marketed at any given time because the properties are occupied, under repair, or are subject to state or local redemption or confirmation periods, which extends the amount of time it takes to bring Fannie Mae's properties to a marketable state and eventually dispose of them. This results in higher foreclosed property expenses, which include costs related to maintaining the property and ensuring that the property is vacant. As of September 30, 2019 approximately 45% of Fannie Mae's REO properties were unable to be marketed, 23% of Fannie Mae's REO properties were available for sale, approximately 12% of Fannie Mae's REO properties were pending sale settlement and approximately 20% of Fannie Mae's REO properties were pending appraisals and being prepared to be listed for sale.

Sales

Fannie Mae utilizes an in-house REO sales team leveraging a network of nearly 930 real estate professionals. Sales teams are assigned geographically based on volumes. Fannie Mae uses its <http://www.HomePath.com> website to market Fannie Mae's REO properties, provide information to the public and to operate a short sale portal for use by real estate professionals.

Fannie Mae's property valuation team determines property values to support REO sales, short-sales, bids for foreclosure sales and non-performing loan sales. The team works with a panel of over 1,000 third-party appraisers and seven national broker price opinion vendors to determine property values. Vendor scorecards continually refine the vendor panels.

After a property is listed, Fannie Mae regularly reviews and evaluates property-specific factors to ensure consistent and accurate pricing strategies. Factors include the numbers of offers received, numbers of showing conducted, target buyers, closing cost assistance incentives, realtor replacement and alternative disposition strategies. Fannie Mae also convenes a Single Family Real Estate Working Group, which meets to discuss market trends that contribute to pricing and marketing strategies. The committee provides list price guidance to the sales team.

In cases where the property does not sell through local real estate professionals, Fannie Mae uses alternative methods of disposition, including selling homes to municipalities, other public entities or non-profit organizations, and selling properties in bulk or through public auctions.

Fannie Mae transfers credit risk through various channels, including its Connecticut Avenue Securities transactions, its Credit Insurance Risk Transfer transactions and risk sharing transactions in which Fannie Mae shares a portion of the credit risk with parties that sell mortgage loans to Fannie Mae or service mortgage loans for Fannie Mae. Fannie Mae may engage in risk sharing arrangements with loan sellers or servicers at or after the time of acquisition of the related loans. Fannie Mae also may enter into risk sharing transactions with approved servicers that have acquired mortgage servicing rights with respect to loans that Fannie Mae acquires. The applicable loan sellers and servicers may select those loans on which they elect to share credit risk with Fannie Mae based on agreed upon criteria. Loans subject to such risk sharing arrangements will not be eligible for inclusion in reference pools for Connecticut Avenue Securities transactions. See "*Eligibility Criteria*" above.

Reference Pool Criteria and Process

The Notes will be linked to the performance of the mortgage loans in the Reference Pool. Loans included in the Reference Pool were chosen from a specified calendar cohort of loans that met the "*Eligibility Criteria*" and certain other conditions as further described below under "*Reference Pool Formation*".

Eligible Loans

The eligible loans will consist of all loans from the calendar cohort that Fannie Mae acquires, that are not selected for inclusion in other risk sharing transactions or private loss sharing arrangements, and that otherwise meet the Eligibility Criteria as described under "Summary of Terms — The Reference Pool" in this Offering Memorandum.

Reference Pool Formation

Fannie Mae determined the composition of the Reference Pool utilizing the multi-step process described below.

- All mortgage loans that Fannie Mae acquired between October 1, 2018 and August 31, 2019 and held in various Fannie Mae MBS trusts established between July 1, 2019 and September 30, 2019 (other than mortgage loans that were, or are anticipated to be, included as reference obligations in an alternative Fannie Mae risk sharing transaction) were divided into two segments on a random basis.
- Loans included in the first segment were made available for potential selection for the Reference Pool. From the first segment, Fannie Mae identified those loans that met the Eligibility Criteria (such loans, the "**Available Loans**").
- The loans included in the second segment were made available for potential selection for one or more unrelated Fannie Mae credit risk transactions and were not included in the Reference Pool.

The following table illustrates certain characteristics of the mortgage loans in the Reference Pool (weighted by Original Unpaid Principal Balance) and of all mortgage loans acquired by Fannie Mae from the calendar cohort that would have met the Eligibility Criteria had they not been subject to other risk sharing transactions.

| <u>Characteristics</u> | <u>Loans Eligible for CAS Program</u> | <u>Reference Pool</u> |
|-------------------------------|--|-----------------------------------|
| Acquisition Date | October 1, 2018 – August 31, 2019 | October 1, 2018 – August 31, 2019 |
| Loan Count | 235,606 | 105,274 |
| Original UPB | \$65,716,071,000 | \$29,330,684,000 |
| W.A. Mortgage Rate | 4.4% | 4.3% |
| W.A. Credit Score | 750 | 750 |
| W.A. DTI | 36% | 36% |
| W.A. Original LTV | 75.5% | 75.4% |
| W.A. Original Combined LTV | 75.9% | 75.9% |
| Investment Property | 8.8% | 6.0% |
| Purchase | 54.2% | 49.9% |
| California Concentration | 20.6% | 21.3% |

The Reference Obligations for the current transaction will not be available for inclusion in any other credit risk transfer transaction.

Finally, as described in this Offering Memorandum, upon a refinancing of a Reference Obligation under Fannie Mae's High LTV Refinance Option Program, the resulting High LTV Refinance Reference Obligation will be deemed a Reference Obligation and will be included in the Reference Pool in replacement of the original Reference Obligation.

Reference Pool Servicing and Risk Management

Fannie Mae's servicing guidelines, credit risk management and quality control procedures are the same for the Reference Pool loans as for all of the eligible loans. In other words, Fannie Mae applies its standard servicing, credit risk management and quality control procedures to all eligible loans, including all of the loans in the Reference Pool. Additionally, Fannie Mae does not notify its servicers as to which loans are included in the

Reference Pool and, accordingly, they are expected to service all eligible loans, including those included in the Reference Pool, in the same manner.

Loan-level credit performance data between January 1, 2000 and June 30, 2019 on a portion of Fannie Mae's 5- to 30-year, fully amortizing, full documentation, single-family, conventional fixed-rate mortgage loans purchased or acquired by Fannie Mae between January 1, 2000 and September 30, 2018 is available online at <http://www.fanniemae.com/portal/funding-the-market/data/loan-performance-data.html> (the "**Single Family Loan-Level Dataset**"). Access to this web address is unrestricted and free of charge. The various mortgage loans for which performance information is shown at the above internet address had initial characteristics that differed from one another, and may have differed in ways that were material to the performance of those mortgage loans. These differing characteristics include, among others, product type, credit quality, geographic concentration, average principal balance, weighted average interest rate, weighted average loan-to-value ratio and weighted average term to maturity. Neither Fannie Mae nor the Indenture Trustee makes any representation, and you should not assume, that the performance information shown at the above internet address is in any way indicative of the performance of the Reference Obligations.

The Single Family Loan-Level Dataset available on Fannie Mae's website relating to any of its mortgage loans is not deemed to be part of this Offering Memorandum. Various factors may affect the prepayment, delinquency and loss performance of the mortgage loans over time.

The Reference Obligations may not perform in the same manner as the mortgage loans in the Single Family Loan-Level Dataset as a result of the various credit and servicing standards Fannie Mae has implemented over time. Due to adverse market and economic conditions, and based in part on Fannie Mae's reviews of the underwriting quality for loans originated in 2005 through 2008, Fannie Mae implemented several credit changes since 2008. These credit changes are defined by specified criteria such as LTV ratios, Credit Score and DTI. Fannie Mae cannot predict how these credit changes will affect the performance of the Reference Obligations compared to the performance of prior vintages of mortgage loans. See also "*Risk Factors — Risks Relating to the Notes Being Linked to the Reference Pool — Certain Loan Sellers May Originate Loans Under Variances to Fannie Mae's Selling Guide*" and "*— Servicers May Not Follow the Requirements of Fannie Mae's Servicing Guide and Servicing Standards May Change Periodically*".

THE REFERENCE OBLIGATIONS

Unless otherwise noted, the statistical information presented in this Offering Memorandum concerning the Reference Pool is based on the characteristics of the Reference Obligations as of November 30, 2019. In addition, unless otherwise noted, references to a percentage of Reference Obligations refer to a percentage of Reference Obligations by principal balance as of November 30, 2019.

This section and [Appendix A](#) to this Offering Memorandum generally describe some of the material characteristics of Reference Obligations. Certain loan-level information for each Reference Obligation may be accessed through Fannie Mae's website at www.fanniemae.com.

The figures in this Offering Memorandum may not correspond exactly to the related figures in [Appendix A](#) to this Offering Memorandum due to rounding differences. Prior to the Closing Date, Reference Obligations will not be removed or substituted from the Reference Pool. Fannie Mae believes that the information set forth in this Offering Memorandum and [Appendix A](#) to this Offering Memorandum is representative of the characteristics of the Reference Pool as it will be constituted as of the Closing Date.

The "**Initial Cohort Pool**" represents all of the Available Loans that met the Preliminary Eligibility Criteria, were acquired between October 1, 2018 and August 31, 2019, had an original loan-to-value ratio (i) greater than 60% and (ii) less than or equal to 80% and are not subject to any form of risk sharing with the loan seller (other than limited seller indemnification in certain cases) or the loan servicer. The first table below summarizes the loan count, original unpaid principal balance and key attributes of the mortgage loans included in the Initial Cohort Pool.

| Category | Loan Count | Aggregate Original Loan Balance | Average Original Loan Balance | Weighted Average Credit Score | Weighted Average LTV Ratio | Weighted Average DTI |
|---|-------------------|--|--------------------------------------|--------------------------------------|-----------------------------------|-----------------------------|
| Initial Cohort Pool (>60% and <=80%) | 107,962 | \$30,151,778,000 | \$279,281 | 750 | 75.44% | 36.04% |
| less loans that did not satisfy the delinquency criteria set forth in clause (d) of the definition of Eligibility Criteria, less loans that paid in full, less quality control removals | 2,688 | \$821,094,000 | | | | |
| Reference Pool | 105,274 | \$29,330,684,000 | \$278,613 | 750 | 75.44% | 36.02% |

The table below summarizes the loans in the Initial Cohort Pool which were excluded from the Reference Pool due to failure to satisfy the delinquency-related Eligibility Criteria, payoffs and quality control removals.

| Worst DQ Status Since Acquisition | Current Status⁽¹⁾ | | | | | | | | | | | Total |
|--|-------------------------------------|------------|-----------|-----------|------------|------------|------------|----------------|---------------------|-------------------|-------------------|--------------|
| | Current | 30 | 60 | 90 | 120 | 150 | 180 | >180 | Paid in Full | QC Removal | Repurchase | |
| Current | 16 ⁽²⁾ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,097 | 0 | 0 | 1,113 |
| 30 | 767 | 730 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 1,505 |
| 60 | 19 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 59 |
| 90 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 804 | 730 | 39 | 9 | 0 | 0 | 0 | 0 | 1,106 | 0 | 0 | 2,688 |

(1) The above table takes into account acquisition eligibility criteria prior to the consideration of delinquency and other Cut-off Date eligibility requirements, which could understate such Cut-off Date eligibility exclusions.

(2) Defects identified, but the loans remain subject to the rebuttal process as of December 19, 2019 and therefore are excluded from eligibility.

Results of Fannie Mae Quality Control

Fannie Mae's loan level post-purchase QC reviews are designed to allow Fannie Mae to evaluate independently whether loans it has acquired meet its underwriting and eligibility requirements, based on Fannie Mae's determinations regarding the borrowers' credit and income and the value of the properties collateralizing the loans. These reviews are based on a combination of the documents and information submitted to Fannie Mae by the loan sellers together with information regarding the borrowers and the properties that Fannie Mae develops itself. In some instances, it is possible for an individual loan to be selected for both a random and a discretionary review. See "*Loan Acquisition Practices and Servicing Standards — Quality Control*".

The following summary is based on the most current information available as of December 19, 2019.

| <u>All Eligible Loans Acquired from October 1, 2018 through August 31, 2019</u> | <u>Number of Loans</u> | <u>% of Eligible Loans</u> |
|---|------------------------|-----------------------------|
| Total Loans | 109,029 | |
| Post-Purchase Quality Control Review Selections | 2,166 | 1.99% |
| | | |
| <u>Post-Purchase Quality Control Review Selections</u> | <u>Number of Loans</u> | <u>% of Reviewed Loans</u> |
| Randomly Selected Loans | 1,271 | 58.68% |
| <u>Discretionary Selected Loans</u> | <u>895</u> | <u>41.32%</u> |
| Total ⁽¹⁾ | 2,166 | 100.00% |
| | | |
| <u>Loans Identified with Eligibility Defects</u> | <u>Number of Loans</u> | <u>% of Reviewed Loans</u> |
| Randomly Selected Loans | 12 | 0.94% ⁽²⁾ |
| <u>Discretionary Selected Loans</u> | <u>3</u> | <u>0.34%</u> ⁽²⁾ |
| Total | 15 | 0.69% ⁽²⁾ |

- (1) The QC reviews of 363 of the selected loans remain subject to the random or discretionary post-purchase review process as of December 19, 2019; some of these loans may be determined to have Eligibility Defects.
- (2) If the 363 loans were excluded from the Number of Loans selected for Fannie Mae's Post-Purchase Quality Control Review selections, the percentage of randomly selected loans with Eligibility Defects would be 0.96%, the percentage of Discretionary Selected Loans Identified with Eligibility Defects would be 0.54% and the total percentage of Loans Identified with Eligibility Defects would be 0.83%.

In Fannie Mae's post-purchase QC reviews of mortgage loans acquired from October 1, 2018 through August 31, 2019, Fannie Mae has selected 2,166 mortgage loans to be reviewed out of all mortgage loans that met the Eligibility Criteria at acquisition; these loans comprise approximately a 1.99% sample by loan count. Fannie Mae's post-purchase QC reviews were designed to evaluate the borrowers' credit, the property valuations and the eligibility of the loans Fannie Mae acquired and the validity of the delivery data received from the lender. In addition, Fannie Mae conducts reviews on a subset of loans to evaluate whether the loans comply with certain laws and regulations that limit points and fees and that may result in assignee liability. Of the 2,166 loans that were selected to receive either a random or discretionary post-purchase review, 1,699 were selected to receive a full file credit and property review and the remaining 467 were determined to require a data, property or credit review. In addition, 224 of the 2,166 loans were subject to Limited Compliance Reviews. Of the 2,166 loans Fannie Mae has selected to review, 1,271 were selected randomly and 895 were selected using targeted, discretionary sampling employing a number of technology tools and internal models to more accurately identify loans with characteristics that merit further scrutiny in discretionary reviews, as well as other targeted review criteria. Of these 2,166 loans, 2,067 are included in the Reference Pool. Fannie Mae's post-purchase QC reviews are designed to validate that the loans Fannie Mae acquires meet its underwriting and eligibility guidelines. If Fannie Mae determines in its reviews that a loan has an eligibility defect, Fannie Mae requires that the loan seller repurchase the loan. Fannie Mae provides a limited opportunity for loan sellers to deliver additional information or documents to Fannie Mae to rebut its repurchase request, and loan sellers frequently are able to provide sufficient additional information for Fannie Mae to determine that the loans do not have Eligibility Defects. As of December 19, 2019, 12 of the randomly selected loans (approximately 0.94% of the randomly selected reviewed loans) and 3 of the loans selected on a discretionary basis (approximately 0.34% of the discretionally selected reviewed loans) were identified by Fannie Mae as having Eligibility Defects. Of the 2,166 loans Fannie Mae selected for review, 363 mortgage loans remain subject to Fannie Mae's post-purchase QC process as of December 19, 2019. If the 363 mortgage loans were excluded, the percentage of randomly selected loans with Eligibility Defects would be 0.96%, the percentage of Discretionary Selected Loans Identified with Eligibility Defects would be 0.54% and the total percentage of Loans Identified with Eligibility Defects would be 0.83%. Fannie Mae may select additional loans for QC review in the future and may make additional repurchase requests or require other alternatives to repurchase in the future for any additional loans that Fannie Mae determines to have Eligibility Defects as a result of Fannie Mae's QC reviews.

Investors should make their own determination about the appropriateness and suitability of, as well as the extent to which they should rely upon, the sampling methodology and review the results described above. See "*Risk Factors — Risks Relating to the Notes Being Linked to the Reference Obligations — Fannie Mae's Limited Review of a Sample of a Small Percentage of the Reference Obligations May Not Reveal All Aspects That Could*

Lead to Credit Events and Modification Events" for additional information regarding the limitations of Fannie Mae's reviews.

Borrower Credit and Property Valuation Findings

The following tables describe the 20 Eligibility Defects regarding credit, property valuations or eligibility for sale to Fannie Mae identified through its post purchase borrower credit and property valuation reviews relative to the above identified 15 loans that Fannie Mae acquired from October 1, 2018 through August 31, 2019 that met the Eligibility Criteria at acquisition and that were repurchased by the respective loan sellers, were subject to open repurchase requests as of December 19, 2019 or were repaid in full after Fannie Mae's repurchase request was issued (none of which were included in the Reference Pool). The first table groups the findings by broad category of the nature of the Eligibility Defects, and the second table provides more detail regarding the specific reason for the Eligibility Defects:

| Credit and Property Review Findings: | Eligible Loans | |
|---|---------------------------|-----------------------------------|
| | Number of Findings | Percentage of the Findings |
| Nature of Eligibility Defect | | |
| Income/Employment | 9 | 45.00% |
| Appraisal | 6 | 30.00% |
| Assets | 3 | 15.00% |
| Liabilities | 1 | 5.00% |
| Property Eligibility | 1 | 5.00% |
| Total Findings | 20 | 100.00%* |

* Total may not sum to 100% due to rounding.

| Eligibility Defect Reason | Number of Findings | Percentage of the Findings |
|--|---------------------------|-----------------------------------|
| Income/Employment Calculation/Analysis | 6 | 30.00% |
| Comparable Selection | 4 | 20.00% |
| Income/Employment Documentation | 2 | 10.00% |
| Appraisal Adjustments | 1 | 5.00% |
| Appraisal Documentation | 1 | 5.00% |
| Asset Calculation/Analysis | 1 | 5.00% |
| Asset Documentation | 1 | 5.00% |
| Asset Eligibility | 1 | 5.00% |
| Income/Employment Eligibility | 1 | 5.00% |
| Liabilities Calculation/Analysis | 1 | 5.00% |
| Site and Utilities | 1 | 5.00% |
| Total Findings | 20 | 100.00%* |

* Total may not sum to 100% due to rounding.

Limited Compliance Review Findings

Fannie Mae performs Limited Compliance Reviews in order to validate the eligibility of the loans to be acquired. However, these reviews do not include examination of all of the documents that would be required to be reviewed to ensure that the loans comply with all applicable federal, state and local laws and regulations. Of the eligible loans acquired from October 1, 2018 through August 31, 2019 and selected for borrower credit and property valuation reviews, 224 were also subject to a Limited Compliance Review (216 of which are included in the Reference Pool). Of the mortgage loans subject to a Limited Compliance Review, none were determined to be ineligible to be sold to Fannie Mae based on the results of such Limited Compliance Review.

Fannie Mae's Selling Guide requires each loan seller to comply with all federal, state and local laws and regulations and to implement a QC program designed to validate that the loan seller's loans do comply with all applicable laws and regulations. Fannie Mae periodically evaluates the effectiveness of a loan seller's QC programs as more fully described under "*Loan Acquisition Practices and Servicing Standards — Quality Control — Loan Seller Quality Control Requirements*". Fannie Mae's Selling Guide also requires loan sellers to represent and warrant to Fannie Mae that loans Fannie Mae acquires were originated in compliance with all applicable laws and regulations.

Due Diligence Review

General

In connection with the issuance from time to time of Connecticut Avenue Securities, Fannie Mae engages third-party diligence providers (each, a "**Diligence Provider**") to conduct limited reviews of mortgage loans that Fannie Mae acquires in a specified calendar quarter and/or month and includes in fully-guaranteed MBS. Fannie Mae pays the fees and expenses of each Diligence Provider and the scope and design of each review are determined by Fannie Mae in consultation with the applicable Diligence Provider.

Selection of the diligence sample for each review relating to this transaction is limited to those mortgage loans that previously were reviewed by Fannie Mae as part of its random post-purchase QC review (the "**Fannie Mae QC Review**"), as described above under "*Loan Acquisition Practices and Servicing Standards — Quality Control — Fannie Mae Quality Control Policy and Process*," and that were acquired between October 1, 2018 and August 31, 2019. The mortgage loans available for selection to the diligence sample for the review relating to this transaction are referred to as the "**Eligible Review Population**" for that review.

Each Diligence Provider receives access to a comparable set of credit, property and compliance data and documents that Fannie Mae reviews as part of the Fannie Mae QC Review. From the Eligible Review Population, the relevant Diligence Provider randomly selected a statistically determined number of mortgage loans (the "**Diligence Sample**") for its review.

In its review of fourth quarter 2018 acquisitions, the relevant Diligence Provider selected a Diligence Sample of 999 mortgage loan files from an Eligible Review Population of 5,386 loans (all of which met the Preliminary Eligibility Criteria). The related Diligence Sample did not include any Reference Obligations that were included in the final selection of the Reference Pool. In its review of first quarter 2019 acquisitions, the relevant Diligence Provider selected a Diligence Sample of 999 mortgage loan files from an Eligible Review Population of 5,491 loans (all of which met the Preliminary Eligibility Criteria). The related Diligence Sample did not include any Reference Obligations that were included in the final selection of the Reference Pool. In its review of second quarter 2019 acquisitions, the relevant Diligence Provider selected a Diligence Sample of 999 mortgage loan files from an Eligible Review Population of 5,503 loans (all of which met the Preliminary Eligibility Criteria). The related Diligence Sample included 19 Reference Obligations that were included in the final selection of the Reference Pool. In its review of July and August 2019 acquisitions, the relevant Diligence Provider selected a Diligence Sample of 666 mortgage loan files from an Eligible Review Population of 3,672 loans (all of which met the Preliminary Eligibility Criteria). The related Diligence Sample included 203 Reference Obligations that were included in the final selection of the Reference Pool.

The mortgage loans in the Eligible Review Population subsequently may have paid off, become delinquent or become subject to repurchase requests prior to issuance of the applicable Connecticut Avenue Securities; no such mortgage loans are included in any reference pool. For the Series 2020-R01 Notes, the "**Preliminary Eligibility Criteria**" are the Eligibility Criteria other than the criteria specified in clauses (b), (d) and (g) of the definition thereof, and provided that for this purpose clause (j) of the definition thereof is deemed to read as follows: "has an original loan-to-value ratio that is (i) greater than 60% and (ii) less than or equal to 97%."

The table below sets forth the Diligence Providers, Eligible Review Population and Diligence Samples for the specified historical periods. Each prospective investor is encouraged to make its own determination as to the value of the available third-party diligence results and the extent to which the Reference Pool, taken as a whole, can be assumed to reflect the same or similar error and defect rates as are reflected in the disclosed results.

| | July and August 2019 | Q2 2019 | Q1 2019 | Q4 2018 |
|---|---------------------------------|----------------|----------------|--|
| Diligence Provider | Adfitech Inc. | Adfitech Inc. | Adfitech Inc. | American Mortgage Consultants, Inc. |
| Eligible Review | | | | |
| Population | 3,672 | 5,503 | 5,491 | 5,386 |
| Diligence Sample..... | 666 | 999 | 999 | 999 |
| Diligence Sample as percentage of Eligible Review | | | | |
| Population | 18.1% | 18.2% | 18.2% | 18.5% |
| Mortgage loans included in: | | | | |
| • all related reference pools ... | 203 | 512 | 486 | 628 |
| • the Reference Pool..... | 203 | 19 | 0 | 0 |

Credit and Property Reviews

The standard credit and property reviews performed by a Diligence Provider are designed to evaluate (i) whether the originator of a mortgage loan has fully documented the basis for determining that the mortgage loan met or exceeded the underwriting criteria under which the mortgage loan was originated and (ii) whether the originator's appraisal was effective to determine the value of the property collateralizing the mortgage loan. Generally, a Diligence Provider reviews the Review Files provided by the originators as well as information independently ascertained by Fannie Mae to determine whether the mortgage loans meet Fannie Mae's underwriting and eligibility requirements. A Diligence Provider evaluates this information to determine whether the mortgage loans meet the terms of Fannie Mae's Selling Guide, any Permitted Variances and, for mortgage loans that were underwritten through DU, the DU recommendations and findings. As a result, a Diligence Provider may rely upon the additional information provided by Fannie Mae that was not included in the Review Files in determining whether a mortgage loan meets Fannie Mae's underwriting and eligibility standards.

Compliance Reviews

A Diligence Provider reviews the applicable Diligence Sample for compliance with those federal, state and local laws and regulations that Fannie Mae validates in its Limited Compliance Reviews. In contrast to a standard securitization compliance review, a Diligence Provider generally does not review compliance with the requirements of TILA/Regulation Z and RESPA (including TRID) within the scope of Fannie Mae's Limited Compliance Reviews. However, for mortgage loans with application dates on or after October 3, 2015, the Diligence Provider will review, determine and report instances where the correct TRID disclosure forms were not used in connection with the origination of the applicable loans. In addition, as a general matter, Fannie Mae does not interpret TRID to apply to mortgage loans made on investment properties, notwithstanding that the borrower uses the proceeds from such mortgages for personal purposes. As such, Fannie Mae has instructed the Diligence Provider under its statement of work, consistent with its own interpretation, to treat investment properties as business purpose loans that are not subject to TRID.

As noted above, the Limited Compliance Reviews that are part of Fannie Mae's post-purchase QC reviews are designed to assess whether the mortgage loans comply with certain laws that may result in assignee liability and for compliance with laws restricting points and fees. Fannie Mae's Limited Compliance Reviews do not include examination of documents to ensure that a mortgage loan complies with all laws and regulations relating to the origination of the mortgage loan. Investors should note that the only potential Eligibility Defects uncovered during such review would relate to mortgage loans that Fannie Mae finds to have violated laws that may result in assignee liability or that restrict points and fees.

Fannie Mae relies on representations and warranties from its loan sellers that all mortgage loans were originated in accordance with all applicable federal, state and local laws and regulations. If, at any point, Fannie Mae discovers a breach of these representation and warranties, Fannie Mae has the right to require the loan seller to repurchase the mortgage loan. This includes, but is not limited to, circumstances where Fannie Mae is unable to foreclose or take title to a property due to failure of the originator to comply with applicable laws in the origination of the mortgage loan.

Material Findings

Each instance of material non-compliance with the terms of Fannie Mae's Selling Guide as described in this "Due Diligence Review" section is referred to herein as a "**Material Finding**." The following tables summarize the results of the credit, property valuation and document reviews of the Diligence Samples for the specified calendar periods.

July and August 2019

Of the 7 mortgage loans with Material Findings identified below, three loans were included in the Reference Pool and will be removed from the Reference Pool on or prior to the first Payment Date as a Reference Pool Removal.

| | Number of Mortgage Loans | Percentage of July-August 2019 Diligence Sample |
|---|--------------------------------|---|
| Total July-August 2019 Diligence Sample | 666 | 100.00% |
| Mortgage loans with Material Findings | 7 | 1.05% |

Diligence Provider's Material Findings*

| Finding Category | Diligence Provider's Material Findings | Fannie Mae QC Review Material Findings | |
|---|---|--|--|
| | Number of Findings | Identified as an Eligibility Defect | Not Identified as an Eligibility Defect |
| Credit Findings | 7 | 2 | 5 |
| Property Valuation Findings | 0 | 0 | 0 |
| Compliance Findings | 0 | 0 | 0 |
| Total Findings | 7 | 2 | 5 |
| Related No. of Mortgage Loans | 7 | 2 | 5 |
| % July-Aug 2019 Diligence Sample | 1.05% | 0.30% | 0.75% |

* Reflects Material Findings for all mortgage loans in the Diligence Sample for July and August 2019.

Second Quarter 2019

None of the 12 mortgage loans with Material Findings identified below were included in the Reference Pool.

| | Number of Mortgage Loans | Percentage of Q2 2019 Diligence Sample |
|---------------------------------------|--------------------------------|--|
| Total Q2 2019 Diligence Sample | 999 | 100.00% |
| Mortgage loans with Material Findings | 12 | 1.20% |

Diligence Provider's Material Findings*

| Finding Category | Diligence Provider's Material Findings | Fannie Mae QC Review Material Findings | |
|-------------------------------|--|--|---|
| | Number of Findings | Identified as an Eligibility Defect | Not Identified as an Eligibility Defect |
| Credit Findings | 11 | 4 | 7 |
| Property Valuation Findings | 1 | 0 | 1 |
| Compliance Findings | 0 | 0 | 0 |
| Total Findings | 12 | 4 | 8 |
| Related No. of Mortgage Loans | 12 | 4 | 8 |
| % Q2 2019 Diligence Sample | 1.20% | 0.40% | 0.80% |

* Reflects Material Findings for all mortgage loans in the Diligence Sample for Q2 2019.

First Quarter 2019

None of the 6 mortgage loans with Material Findings identified below were included in the Reference Pool..

| | Number of Mortgage Loans | Percentage of Q1 2019 Diligence Sample |
|---------------------------------------|--------------------------|--|
| Total Q1 2019 Diligence Sample | 999 | 100.00% |
| Mortgage loans with Material Findings | 6 | 0.60% |

Diligence Provider's Material Findings*

| Finding Category | Diligence Provider's Material Findings | Fannie Mae QC Review Material Findings | |
|-------------------------------|--|--|---|
| | Number of Findings | Identified as an Eligibility Defect | Not Identified as an Eligibility Defect |
| Credit Findings | 5 | 2 | 3 |
| Property Valuation Findings | 1 | 1 | 0 |
| Compliance Findings | 0 | 0 | 0 |
| Total Findings | 6 | 3 | 3 |
| Related No. of Mortgage Loans | 6 | 3 | 3 |
| % Q1 2019 Diligence Sample | 0.60% | 0.30% | 0.30% |

* Reflects Material Findings for all mortgage loans in the Diligence Sample for Q1 2019.

Fourth Quarter 2018

None of the 14 mortgage loans with Material Findings identified below were included in the Reference Pool.

| | Number of Mortgage Loans | Percentage of Q4 2018 Diligence Sample |
|---------------------------------------|--------------------------------|--|
| Total Q4 2018 Diligence Sample | 999 | 100.00% |
| Mortgage loans with Material Findings | 14 | 1.40% |

Diligence Provider's Material Findings*

| Finding Category | Diligence Provider's Material Findings | Fannie Mae QC Review Material Findings | |
|--------------------------------------|---|---|---|
| | Number of Findings | Identified as an Eligibility Defect | Not Identified as an Eligibility Defect |
| Credit Findings | 12 | 5 | 7 |
| Property Valuation Findings | 2 | 1 | 1 |
| Compliance Findings | 0 | 0 | 0 |
| Total Findings | 14 | 6 | 8 |
| Related No. of Mortgage Loans | 14 | 6 | 8 |
| % Q4 2018 Diligence Sample | 1.40% | 0.60% | 0.80% |

* Reflects Material Findings for all mortgage loans in the Diligence Sample for Q4 2018.

Appraisal Reviews

As part of its evaluation of the Diligence Sample, a Diligence Provider may obtain desk review valuations of the properties securing the mortgage loans in the applicable Diligence Sample. Some of the loans may have been acquired pursuant to DU approvals that permitted the loan seller to deliver loans with a DU Property Inspection Report (Form 2075) or a Property Inspection Waiver (PIW) (see "*Credit Standards—Underwriting Process—Desktop Underwriter*"). For each Diligence Sample, the set of completed desk review valuations is referred to as the "**Appraisal Sample**".

A desk review is a valuation analysis in which an appraiser makes a separate selection of comparable sales, which may or may not be the same as those used in the original appraisal, and, using a rules-based valuation model, makes an independent determination as to whether the original appraised value is supported. A Diligence Provider may contract with a third-party firm to prepare desk review valuations for mortgage loans in the applicable Appraisal Sample; in such cases, the Diligence Provider will indicate any desk review valuations (determined "as of" the date of the appraisal) that resulted in a negative variance of more than 10% of the appraised values or were inconclusive.

A field review valuation estimate of a property includes a visual inspection of the exterior of the property and a review of sales and listings of properties that are proximate to the subject property and of comparable value, but does not include an inspection of the interior of the property. A Diligence Provider may order field review valuations of the mortgaged properties.

The following table sets forth desk review and field review results for the Diligence Samples in the specified calendar periods.

| | July and August 2019 | Q2 2019 | Q1 2019 | Q4 2018 |
|---|---------------------------------|----------------|----------------|----------------|
| Desk reviews | 569 | 917 | 943 | 959 |
| Property Inspection Waivers (PIWs) | 97 | 82 | 56 | 38 |
| Unattainable Desk Reviews | 0 | 0 | 0 | 2 |
| Desk reviews with a variance +/- 10% or inconclusive | 0 | 8 | 7 | 14 |
| Field reviews | 0 | 8 | 7 | 16 |
| Field reviews \geq 90%* | 0 | 7 | 6 | 14 |
| Field reviews < 90%** | 0 | 1 | 1 | 2 |
| Field review mortgage loans initially included in all reference pools | 0 | 3 | 4 | 9 |

* Field reviews equal to or greater than 90% of the appraisal value were determined by the Diligence Provider to meet Eligibility Criteria.

** Field reviews less than 90% of the appraisal value were determined by the Diligence Provider to not meet the Eligibility Criteria and were excluded from the Reference Pool.

Data Integrity Reviews

Each Diligence Provider compared 19,980 fields per quarter for fourth quarter 2018, first quarter 2019 and second quarter 2019 and 13,320 fields for July and August 2019 on a data file Fannie Mae prepares that includes certain characteristics of the mortgage loans that Fannie Mae uses to generate the statistical information regarding the mortgage loans in a Reference Pool to information in the mortgage loan files. These fields are: original DTI, original LTV, original combined LTV, credit score, loan purpose, first time homebuyer status, property type, number of units, occupancy status, property state, five digit zip code, original principal balance, original interest rate, amortization type, interest only feature, first payment date, maturity date, modification status, number of borrowers and mortgage insurance coverage status. Discrepancies found in data integrity reviews are summarized below and in [Appendix B](#) to this Offering Memorandum.

Fannie Mae's loan level post-purchase QC reviews are designed to allow Fannie Mae to evaluate independently whether mortgage loans Fannie Mae has acquired meet its underwriting and eligibility requirements based on its determinations of the borrowers' credit and income and the value of the mortgaged properties. These reviews are not designed to validate the mortgage loan data provided to Fannie Mae by the loan sellers. Fannie Mae may determine that none of the data discrepancies identified by a Diligence Provider result in Eligibility Defects or a violation of the applicable Eligibility Criteria. However, investors should note that in such cases Fannie Mae does not update the mortgage loan data files to reflect these discrepancies. In its sole discretion, after the closing date for an issuance of Connecticut Avenue Securities, Fannie Mae may take steps to reconcile certain of the data discrepancies identified by the applicable Diligence Provider with the respective loan sellers. To the extent Fannie Mae verifies any of these data discrepancies, Fannie Mae expects to update the monthly loan-level information with respect to the applicable Reference Pool that is made available to the related Noteholders.

The following tables summarize the data discrepancies identified by the Diligence Provider in the specified calendar periods relative to Fannie Mae's data files.

July and August 2019

| | Number of Discrepancies | Percentage of July-August 2019 Diligence Sample | Average of Fannie Mae Data | Average of Diligence Provider Data |
|----------------------|----------------------------|--|----------------------------------|---------------------------------------|
| DTI (Back) > 2% <=5% | 9 | 1.35% | 31.00% | 32.02% |
| DTI (Back) +/- >5% | 4 | 0.60% | 34.75% | 65.92% |
| First Time Homebuyer | 2 | 0.30% | Yes | No |
| First Time Homebuyer | 4 | 0.60% | No | Yes |
| Loan Purpose | 1 | 0.15% | Cash-Out Refinance | Rate Term Refinance |
| MI Coverage | 1 | 0.15% | 12.00% | 25.00% |
| Property Type | 1 | 0.15% | Condo | Manufactured Home |
| Zip Code | 1 | 0.15% | 93637 | 93636 |
| Total..... | 23* | | | |

* These 23 discrepancies relate to 23 mortgage loans, of which eight mortgage loans are included in, and 15 mortgage loans were excluded from, the Reference Pool. Data discrepancies for the eight mortgage loans included in the Reference Pool are summarized in the following table. Additionally, see Appendix B for further information regarding each discrepancy.

| Discrepancies for July-August 2019 Diligence Sample Mortgage Loans Included in the Reference Pool | Number of Discrepancies | Percentage of July- August 2019 Diligence Sample | Average of Fannie Mae Data | Average of Diligence Provider Data |
|--|----------------------------|--|----------------------------------|--|
| DTI (Back) > 2% <=5% | 5 | 0.75% | 27.00% | 26.13% |
| DTI (Back) +/- >5% | 1 | 0.15% | 25.00% | 47.02% |
| Loan Purpose | 1 | 0.15% | Cash-Out Refinance | Rate Term Refinance |
| Zip Code | 1 | 0.15% | 93637 | 93636 |
| Total | 8 | | | |

Second Quarter 2019

| | Number of Discrepancies | Percentage of Q2 2019 Diligence Sample | Average of Fannie Mae Data | Average of Diligence Provider Data |
|----------------------|----------------------------|---|----------------------------------|---------------------------------------|
| DTI (Back) > 2% <=5% | 6 | 0.60% | 42.13% | 44.32% |
| DTI (Back) +/- >5% | 9 | 0.90% | 36.14% | 42.78% |
| First Payment Date | 1 | 0.10% | 6/1/2019 | 5/1/2019 |
| First Time Homebuyer | 5 | 0.50% | Yes | No |
| First Time Homebuyer | 6 | 0.60% | No | Yes |
| Maturity Date | 1 | 0.10% | 5/1/2049 | 4/1/2049 |
| MI Coverage | 6 | 0.60% | 19.33% | 26.67% |
| Property Type | 1 | 0.10% | PUD | Single Family |
| Total..... | 35* | | | |

* These 35 discrepancies relate to 34 mortgage loans, of which two mortgage loans are included in, and 32 mortgage loans were excluded from, the Reference Pool. Data discrepancies for the two mortgage loans included in the

Reference Pool are summarized in the following table. Additionally, see Appendix B for further information regarding each discrepancy.

| Discrepancies for Q2 2019 Diligence Sample Mortgage Loans Included in the Reference Pool | Number of Discrepancies | Percentage of Q2 2019 Diligence Sample | Average of Fannie Mae Data | Average of Diligence Provider Data |
|---|----------------------------|--|----------------------------------|--|
| DTI (Back) > 2% <=5% | 1 | 0.10% | 42.35% | 45.48% |
| First Time Homebuyer | 1 | 0.10% | No | Yes |
| Total | 2 | | | |

First Quarter 2019

| | Number of Discrepancies | Percentage of Q1 2019 Diligence Sample | Average of Fannie Mae Data | Average of Diligence Provider Data |
|------------------------|----------------------------|---|----------------------------------|---------------------------------------|
| DTI (Back) > 2% <=5% | 9 | 0.90% | 41.16% | 42.91% |
| DTI (Back) +/- >5% | 8 | 0.80% | 36.70% | 53.02% |
| Credit Score | 1 | 0.10% | 777 | Undetermined |
| First Time Homebuyer | 4 | 0.40% | No | Yes |
| First Time Homebuyer | 3 | 0.30% | Yes | No |
| Original Loan to Value | 1 | 0.10% | 70.00% | 67.00% |
| MI Coverage | 1 | 0.10% | 0.00% | 12.00% |
| Property Type | 1 | 0.10% | Single Family | PUD |
| Property Type | 1 | 0.10% | PUD | Manufactured Home |
| Property Type | 1 | 0.10% | PUD | Single Family |
| Total..... | 30* | | | |

* These 30 discrepancies relate to 29 mortgage loans, all of which were excluded from the Reference Pool. See Appendix B for further information regarding each discrepancy.

Fourth Quarter 2018

| | Number of Discrepancies | Percentage of Q4 2018 Diligence Sample | Average of Fannie Mae Data | Average of Diligence Provider Data |
|---------------------------------|----------------------------|---|-------------------------------|--|
| DTI (Back) > 2% <=5% | 17 | 1.70% | 40.03% | 39.51% |
| DTI (Back) +/- >5% | 10 | 1.00% | 34.97% | 37.37% |
| Loan Purpose | 2 | 0.20% | Purchase | Refinance |
| MI Coverage | 1 | 0.10% | 0.30% | 25.00% |
| Occupancy Status | 3 | 0.30% | Second Home | Investment |
| Original Combined Loan to Value | 2 | 0.20% | 81.50% | 81.74% |
| Original Loan to Value | 3 | 0.30% | 77.67% | 75.04% |
| Property Type | 2 | 0.20% | Single Family | PUD |
| Representative Credit Score | 3 | 0.30% | 744 | 744 |
| Total | 43* | | | |

* These 43 discrepancies relate to 39 mortgage loans, all of which were excluded from the Reference Pool. See Appendix B for further information regarding each discrepancy.

Limitations of the Diligence Provider's Review Process

As noted above under "*Risks Relating to the Notes Being Linked to the Reference Obligations — Limited Scope and Size of Review of the Mortgage Loans in the Reference Pool May Not Reveal Aspects of the Reference Obligations That Could Lead to Credit Events and Modification Events*," there can be no assurance that the review conducted by the Diligence Provider uncovered all relevant factors relating to the origination of the mortgage loans included in the Reference Pool, their compliance with applicable laws and regulation or uncovered all relevant factors that could affect the future performance of the mortgage loans included in the Reference Pool. The review was performed on a small sample that did not include all of the mortgage loans included in the Reference Pool and the mortgage loans that were included in the review may have characteristics that were not discovered, noted or analyzed as part of the Diligence Provider's limited review that could, nonetheless, result in those mortgage loans experiencing Credit Events in the future.

Investors are advised that the aforementioned review procedures carried out by the Diligence Provider were performed for the benefit of the Initial Purchasers but were of limited scope as described above. The Diligence Provider makes no representation and provides no advice to any investor or future investor concerning the suitability of any transaction or investment strategy, the Diligence Provider performed only the review procedures described herein and the Diligence Provider is not responsible for any decision to include any mortgage loan in the Reference Pool.

Investors are encouraged to make their own determination as the extent to which they place reliance on the limited loan review procedures carried out as part of the Diligence Provider's reviews.

HISTORICAL INFORMATION

Loan-level credit performance data between January 1, 2000 and June 30, 2019 on a portion of Fannie Mae's 5- to 30-year, fully amortizing, full documentation, single-family, conventional fixed-rate mortgage loans purchased or acquired by Fannie Mae between January 1, 2000 and September 30, 2018 is available online at <http://www.fanniemae.com/portal/funding-the-market/data/loan-performance-data.html> (the "**Single Family Loan-Level Dataset**"). Access to this web address is unrestricted and free of charge. The various mortgage loans for which performance information is shown at the above internet address had initial characteristics that differed from one another, and may have differed in ways that were material to the performance of those mortgage loans. These differing characteristics include, among others, product type, credit quality, geographic concentration, average principal balance, weighted average interest rate, weighted average loan-to-value ratio and weighted average term to maturity. Neither Fannie Mae nor the Indenture Trustee makes any representation, and you should not assume, that the performance information shown at the above internet address is in any way indicative of the performance of the Reference Obligations.

The Single Family Loan-Level Dataset available on Fannie Mae's website relating to any of its mortgage loans is not deemed to be part of this Offering Memorandum. Various factors may affect the prepayment, delinquency and loss performance of the mortgage loans over time.

The Reference Obligations may not perform in the same manner as the mortgage loans in the Single Family Loan-Level Dataset as a result of the various credit and servicing standards Fannie Mae has implemented over time. Due to adverse market and economic conditions, and based in part on Fannie Mae's reviews of the underwriting quality for loans originated in 2005 through 2008, Fannie Mae implemented several credit changes since 2008. These credit changes are defined by specified criteria such as LTV ratios, Credit Score and DTI. Fannie Mae cannot predict how these credit changes will affect the performance of the Reference Obligations compared to the performance of prior vintages of mortgage loans. See also "*Risk Factors — Risks Relating to the Notes Being Linked to the Reference Obligations — Certain Loan Sellers May Originate Loans Under Variances to Fannie Mae's Selling Guide*" and "*— Servicers May Not Follow the Requirements of Fannie Mae's Servicing Guide and Servicing Standards May Change Periodically*".

PREPAYMENT AND YIELD CONSIDERATIONS

Credit Events and Modification Events

The amount and timing of Credit Events and Modification Events on the Reference Obligations will affect the yield on the Notes. To the extent that Credit Events or Modification Events on the Reference Obligations result in the allocation of Tranche Write-down Amounts to a related Class of Notes, the Class Principal Balance of such Class of Notes will be reduced, without any corresponding payment of principal, by the amount of such Tranche Write-down Amounts. As described under "*Summary of Terms — Reductions in Class Principal Balances of the Notes Due to Allocation of Tranche Write-down Amounts*," Tranche Write-down Amounts for the Notes will be allocated (after allocation of the Senior Reduction Amount and Subordinate Reduction Amount) *first*, to reduce any Overcollateralization Amount for such Payment Date, until such Overcollateralization Amount is reduced to zero. Thereafter, all additional Tranche Write-down Amounts will be allocated to reduce the Class Notional Amounts of the Reference Tranches in the following order of priority:

first, to the Class 1B-2H Reference Tranche,

second, to the Class 1B-1 and Class 1B-1H Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount;

third, to the Class 1M-2C and Class 1M-CH Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount;

fourth, to the Class 1M-2B and Class 1M-BH Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount;

fifth, to the Class 1M-2A and Class 1M-AH Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount;

sixth, to the Class 1M-1 and Class 1M-1H Reference Tranches, *pari passu* based on their Class Notional Amounts after allocation of the Senior Reduction Amount and Subordinate Reduction Amount; and

seventh, to the Class 1A-H Reference Tranche (up to the amount of any remaining unallocated Tranche Write-down Amounts *less* the amount attributable to clause (d) of the definition of "Principal Loss Amount");

in each case until the Class Notional Amount of each such Class is reduced to zero. Any Tranche Write-down Amounts allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche will result in a corresponding decrease in the Class Principal Balance of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount that is allocable to the related Exchangeable Notes will be allocated to decrease the Class Principal Balance or Class Notional Amount, as applicable, of the RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero). Any such allocations will result, in turn, in investment losses to the Noteholders. Moreover, since the Minimum Credit Enhancement Test is not satisfied on the Closing Date, any reductions in the Class 1B-2H Reference Tranche, Class 1B-1 and Class 1B-1H Reference Tranches,

Class 1M-2C and Class 1M-CH Reference Tranches, Class 1M-2B and Class 1M-BH Reference Tranches, Class 1M-2A and Class 1M-AH Reference Tranches or Class 1M-1 and Class 1M-1H Reference Tranches may further delay the Subordinate Percentage from meeting the related Minimum Credit Enhancement Test and thus further delay the allocation of certain payments of principal to the Notes. Similarly, Modification Loss Amounts may be allocated to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Reference Tranche as described under "*Description of the Notes—Hypothetical Structure and Calculations with Respect to the Reference Tranches—Allocation of Modification Loss Amount*" and will result in a corresponding reduction of the Interest Payment Amount of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes, as applicable. If any RCR Notes are held by Holders, any Modification Loss Amount that is allocable to the related Exchangeable Notes will be allocated to decrease the Class Principal Balance or Class Notional Amount, as applicable, of the RCR Notes. As such:

- because the Class 1B-1 Reference Tranche is subordinate to the Class 1M-1, Class 1M-2A, Class 1M-2B and Class 1M-2C Reference Tranches, the Class 1B-1 Notes will be more sensitive than the Class 1M-1, Class 1M-2A, Class 1M-2B and Class 1M-2C Notes to Tranche Write-down Amounts after the Class Notional Amount of the Class 1B-2H Reference Tranche is reduced to zero;
- because the Class 1M-2C Reference Tranche is subordinate to the Class 1M-1, Class 1M-2A and Class 1M-2B Reference Tranches, the Class 1M-2C Notes will be more sensitive than the Class 1M-1, Class 1M-2A and Class 1M-2B Notes to Tranche Write-down Amounts after the Class Notional Amounts of the Class 1B-2H and Class 1B-1 Reference Tranches are reduced to zero;
- because the Class 1M-2B Reference Tranche is subordinate to the Class 1M-1 and Class 1M-2A Reference Tranches, the Class 1M-2B Notes will be more sensitive than the Class 1M-1 and Class 1M-2A Notes to Tranche Write-down Amounts after the Class Notional Amounts of the Class 1B-2H, Class 1B-1 and Class 1M-2C Reference Tranches are reduced to zero; and
- because the Class 1M-2A Reference Tranche is subordinate to the Class 1M-1 Reference Tranche, the Class 1M-2A Notes will be more sensitive than the Class 1M-1 Notes to Tranche Write-down Amounts after the Class Notional Amounts of the Class 1B-2H, Class 1B-1, Class 1M-2C and Class 1M-2B Reference Tranches are reduced to zero.

Additionally, allocations of Modification Loss Amounts following Modification Events may result in reductions in the Interest Payment Amounts on the Notes, as further described under "*Description of the Notes — Hypothetical Structure and Calculations with Respect to the Reference Tranches — Allocation of Modification Loss Amount.*"

Credit Events and Modification Events can be caused by, but not limited to, borrower mismanagement of credit and unforeseen events. The rate of delinquencies on refinance mortgage loans may be higher than for other types of mortgage loans. Furthermore, the rate and timing of Credit Events and Modification Events on the Reference Obligations (and the actual losses realized with respect thereto) will be affected by the general economic condition of the region of the country in which the related mortgaged properties are located. The risk of Credit Events and Modification Events is greater and prepayments are less likely in regions where a weak or deteriorating economy exists, as may be evidenced by, among other factors, increasing unemployment or falling property values. The yield on any Class of Notes and the rate and timing of Credit Events and Modification Events on the Reference Obligations may also be affected by servicing decisions by the applicable servicer.

Prepayment Considerations and Risks

The rate of principal payments on the Notes and the yield to maturity (or to early redemption) of Notes purchased at a price other than par are directly related to the rate and timing of payments of principal on the Reference Obligations. The principal payments on the Reference Obligations may be in the form of Scheduled Principal or Unscheduled Principal. Any Unscheduled Principal may result in payments to an investor of amounts that would otherwise be distributed over the remaining term of the Reference Obligations. On the Closing Date, the Notes will not satisfy the Minimum Credit Enhancement Test and therefore no principal will be paid to the Notes in respect of Unscheduled Principal until such test is satisfied (other than principal payments in respect of any Supplemental Subordinate Reduction Amounts allocated to the related Reference Tranches prior to satisfaction of the Minimum Credit Enhancement Test).

The rate at which mortgage loans in general prepay may be influenced by a number of factors, including general economic conditions, mortgage market interest rates, availability of mortgage funds, the value of the mortgaged property and the borrower's net equity therein, solicitations, servicer decisions and homeowner mobility.

- In general, if prevailing mortgage rates fall significantly below the mortgage rates on the Reference Obligations, the Reference Obligations are likely to prepay at higher rates than if prevailing mortgage rates remain at or above the mortgage rates on the Reference Obligations.
- Conversely, if prevailing mortgage rates rise above the mortgage rates on the Reference Obligations, the rate of prepayment would be expected to decrease.

The timing of changes in the rate of prepayments may significantly affect an investor's actual yield to maturity, even if the average rate of principal prepayments is consistent with an investor's expectations. In general, the earlier the payment of principal of the Reference Obligations the greater the effect on an investor's yield to maturity. As a result, the effect on investors' yield due to principal prepayments occurring at a rate higher (or lower) than the rate investors anticipate during the period immediately following the issuance of the Notes may not be offset by a subsequent like reduction (or increase) in the rate of principal prepayments. Prospective investors should also consider the risk, in the case of a Note purchased at a discount that a slower than anticipated rate of payments in respect of principal (including prepayments) on the Reference Obligations will have a negative effect on the yield to maturity of such Note. Prospective investors should also consider the risk, in the case of a Note purchased at a premium, that a faster than anticipated rate of payments in respect of principal (including prepayments) on the Reference Obligations will have a negative effect on the yield to maturity of such Note. Prospective investors must make decisions as to the appropriate prepayment assumptions to be used in deciding whether to purchase Notes.

A borrower may make a full or partial prepayment on a mortgage loan at any time without paying a penalty. A borrower may fully prepay a mortgage loan for several reasons, including an early payoff, a sale of the related mortgaged property or a refinancing of the mortgage loan. A borrower who makes a partial prepayment of principal may request that the monthly principal and interest installments be recalculated, provided that the monthly payments are current. Any recalculation of payments must be documented by a modification agreement. The recalculated payments cannot result in an extended maturity date or a change in the interest rate. The rate of payment of principal may also be affected by any removal from the Reference Pool of some or all of the Reference Obligations as required by the Indenture. See "*Summary of Terms — The Reference Pool*" in this Offering Memorandum. Fannie Mae may also remove Reference Obligations from the Reference Pool because they do not satisfy the Eligibility Criteria. Any removals will shorten the weighted average lives of the Notes.

The Reference Obligations will typically include "due-on-sale" clauses which allow the holder of such Reference Obligation to demand payment in full of the remaining principal balance upon sale or certain transfers of the property securing such Reference Obligation.

Acceleration of the Reference Obligations as a result of enforcement of "due-on-sale" clauses in connection with transfers of the related mortgaged properties or the occurrence of certain other events resulting in acceleration would affect the level of prepayments on the Reference Obligations, which in turn would affect the weighted average lives of the Notes.

In recent years, modifications and other default resolution procedures other than foreclosure, such as deeds in lieu of foreclosure and short sales, have become more common and those servicing decisions, rather than foreclosure, may affect the rate of principal prepayments on the Reference Obligations.

Prospective investors should understand that the timing of changes in One-Month LIBOR may affect the actual yields on the floating rate Notes even if the average rate of One-Month LIBOR is consistent with such prospective investors' expectations. Each prospective investor must make an independent decision as to the appropriate One-Month LIBOR assumptions to be used in deciding whether to purchase a Note.

The Notes are also subject to acceleration following an Event of Default under the Indenture, as described under "*The Agreements — The Indenture*," and are subject to early redemption as described under "*Description of the Notes — Early Redemption*" in this Offering Memorandum.

RCR Notes

The payment characteristics and experiences of the RCR Notes reflect the payment characteristics of the related Exchangeable Notes. Accordingly, investors in the RCR Notes should consider the prepayment and yield considerations described herein of the related Exchangeable Notes as if they were investing directly in such Exchangeable Notes. In addition, if investors purchase Interest Only RCR Notes and principal payments allocated to the related Exchangeable Notes occur at a faster rate than such investors assumed, such investors' actual yield to maturity will be lower than assumed or such investors may not even recover their investments in such RCR Notes.

Assumptions Relating to Weighted Average Life Tables, Declining Balances Tables, Credit Event Sensitivity Table, Cumulative Note Write-down Amount Tables and Yield Tables

The tables on the following pages have been prepared on the basis of the following assumptions (the "**Modeling Assumptions**"):

(a) The Reference Obligations consist of the mortgage loans having the assumed characteristics shown in Appendix C;

(b) the initial Class Principal Balances for the Offered Notes are as set forth or described on the cover page hereof, the Class Principal Balances and Class Notional Amounts of the other RCR Notes and the Exchangeable Notes are as set forth on Schedule I hereto, and the Class Coupons are assumed to be as follows:

| <u>Class</u> | <u>Assumed Class Coupon</u> |
|------------------|-----------------------------|
| 1M-1 Notes | One-Month LIBOR + ____% |
| 1M-2 Notes | One-Month LIBOR + ____% |
| 1M-2A Notes..... | One-Month LIBOR + ____% |
| 1M-2B Notes..... | One-Month LIBOR + ____% |
| 1M-2C Notes..... | One-Month LIBOR + ____% |
| 1A-I1 Notes..... | ____% |
| 1A-I2 Notes..... | ____% |
| 1A-I3 Notes..... | ____% |
| 1A-I4 Notes..... | ____% |
| 1E-A1 Notes..... | One-Month LIBOR + ____% |
| 1E-A2 Notes..... | One-Month LIBOR + ____% |
| 1E-A3 Notes..... | One-Month LIBOR + ____% |
| 1E-A4 Notes..... | One-Month LIBOR + ____% |
| 1B-I1 Notes..... | ____% |
| 1B-I2 Notes..... | ____% |
| 1B-I3 Notes..... | ____% |
| 1B-I4 Notes..... | ____% |
| 1E-B1 Notes..... | One-Month LIBOR + ____% |
| 1E-B2 Notes..... | One-Month LIBOR + ____% |
| 1E-B3 Notes..... | One-Month LIBOR + ____% |
| 1E-B4 Notes..... | One-Month LIBOR + ____% |
| 1C-I1 Notes..... | ____% |
| 1C-I2 Notes..... | ____% |
| 1C-I3 Notes..... | ____% |
| 1C-I4 Notes..... | ____% |
| 1E-C1 Notes..... | One-Month LIBOR + ____% |
| 1E-C2 Notes..... | One-Month LIBOR + ____% |
| 1E-C3 Notes..... | One-Month LIBOR + ____% |
| 1E-C4 Notes..... | One-Month LIBOR + ____% |
| 1E-D1 Notes..... | One-Month LIBOR + ____% |
| 1E-D2 Notes..... | One-Month LIBOR + ____% |
| 1E-D3 Notes..... | One-Month LIBOR + ____% |
| 1E-D4 Notes..... | One-Month LIBOR + ____% |

| <u>Class</u> | <u>Assumed Class Coupon</u> |
|-------------------|-----------------------------|
| 1E-D5 Notes..... | One-Month LIBOR + ____% |
| 1E-F1 Notes | One-Month LIBOR + ____% |
| 1E-F2 Notes | One-Month LIBOR + ____% |
| 1E-F3 Notes | One-Month LIBOR + ____% |
| 1E-F4 Notes | One-Month LIBOR + ____% |
| 1E-F5 Notes | One-Month LIBOR + ____% |
| 1-J1 Notes | (1) |
| 1-J2 Notes | (1) |
| 1-J3 Notes | (1) |
| 1-J4 Notes | (1) |
| 1-K1 Notes | (1) |
| 1-K2 Notes | (1) |
| 1-K3 Notes | (1) |
| 1-K4 Notes | (1) |
| 1-X1 Notes | ____% |
| 1-X2 Notes | ____% |
| 1-X3 Notes | ____% |
| 1-X4 Notes | ____% |
| 1-Y1 Notes | ____% |
| 1-Y2 Notes | ____% |
| 1-Y3 Notes | ____% |
| 1-Y4 Notes | ____% |
| 1M-2Y Notes..... | One-Month LIBOR + ____% |
| 1M-2X Notes..... | (2) |
| 1B-1Y Notes | One-Month LIBOR + ____% |
| 1B-1X Notes | (2) |
| 1B-1 Notes | One-Month LIBOR + ____% |

(1) The Assumed Class Coupon for each of these Classes of RCR Notes with respect to any Payment Date will be based on the weighted average Assumed Class Coupons of the Exchangeable and RCR Notes included in such Combination, calculated in the manner described in footnote (4) under "Summary – Interest."

(2) The Modeling Assumptions provide that the Class 1M-2X and Class 1B-1X Notes receive no cash flows, and accordingly, those Classes of Notes are assumed for purposes of the Modeling Assumptions to have Class Coupons equal to 0.00%.

(c) the scheduled monthly payment for each Reference Obligation is based on its unpaid principal balance, current mortgage rate and remaining amortization term so that it will fully amortize in amounts sufficient for the repayment thereof over its remaining amortization term;

(d) other than with respect to the Declining Balances Tables, the Reference Obligations experience Credit Events at the indicated CDR percentages and there is no lag between the related Credit Event Amounts and the application of any Excess Credit Event Amounts; the Principal Loss Amount is equal to 25% of the Credit Event; in the case of the Declining Balances Tables, it is assumed that no Credit Events occur;

(e) the Delinquency Test is satisfied for each Payment Date;

(f) scheduled payments of principal and interest with respect to the Reference Obligations are received on the applicable due date beginning on the first day of the calendar month immediately preceding the month in which the first Payment Date occurs;

(g) principal prepayments in full on the Reference Obligations are received on the last day of each month beginning in the calendar month prior to the month in which the first Payment Date occurs;

(h) there are no partial principal prepayments on the Reference Obligations;

- (i) the Reference Obligations prepay at the indicated CPR percentages;
- (j) no Reference Obligations are purchased or removed from the Reference Pool and no mortgage loans are substituted for the Reference Obligations included in the Reference Pool on the Closing Date;
- (k) there are no Modification Events or data corrections in connection with the Reference Obligations;
- (l) there is no exercise of the Early Redemption Option (except in the case of WAL (years) to Early Redemption Date);
- (m) there are no Reversed Credit Event Reference Obligations or Originator Rep and Warranty Settlements;
- (n) all interest received on the Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes is received in respect of the REMIC regular interest component of such Classes of Notes;
- (o) the Projected Recovery Amount is zero;
- (p) the Notes are issued on January 23, 2020;
- (q) the Maturity Date is the Payment Date in January 2040;
- (r) cash payments on the Notes are received on the twenty-fifth (25th) day of each month beginning in February 2020 as described under "*Description of The Notes*" in this Offering Memorandum;
- (s) each Remittance Date occurs on the twenty-fourth (24th) day of each month beginning in February 2020;
- (t) the value of One-Month LIBOR is assumed to remain constant at ___% per annum;
- (u) the Collateral Administration Agreement does not terminate prior to the Payment Date in January 2040 (except in the case of WAL (years) to Early Redemption Date);
- (v) there is no Event of Default under the Indenture; and
- (w) there are no losses or delays in the liquidation of Eligible Investments in the Cash Collateral Account.

Although the characteristics of the Reference Obligations for the Weighted Average Life Tables, Declining Balances Tables, Credit Event Sensitivity Table, Cumulative Note Write-down Amount Tables and Yield Tables have been prepared on the basis of the weighted average characteristics of the mortgage loans which are expected to be included in the Reference Pool, there is no assurance that the Modeling Assumptions will reflect the actual characteristics or performance of the Reference Obligations or that the performance of the Notes will conform to the results set forth in the tables.

Weighted Average Lives of the Notes

Weighted average life of a Class of Notes (other than the Interest Only RCR Notes) refers to the average amount of time that will elapse from the date of issuance of such Class of Notes until each dollar is distributed and any Tranche Write-down Amount is allocated in reduction of its principal balance. Fannie Mae has calculated the weighted average lives for the Interest Only RCR Notes assuming that a reduction in the related Class Notional Amount is a reduction in Class Principal Balance of the related Exchangeable Note. The weighted average lives of the Notes will be influenced by, among other things, the rate at which principal of the Reference Obligations is actually paid by the related borrower, which may be in the form of Scheduled Principal or Unscheduled Principal, the timing of changes in such rate of principal payments and the timing and rate of allocation of Tranche Write-down Amounts and Tranche Write-up Amounts to the Notes. The interaction of the foregoing factors may have different effects on each Class of Notes and the effects on any such Class may vary at different times during the life of such Class. Accordingly, no assurance can be given as to the weighted average life of any Class of Notes. For an example of how the weighted average lives of the Notes are affected by the foregoing factors at various rates of prepayment and Credit Events, see the Weighted Average Life Tables and Declining Balances Tables set forth below.

Prepayments on mortgage loans are commonly measured relative to a constant prepayment standard or model. The model used in this Offering Memorandum for the Reference Obligations is a Constant Prepayment Rate (or "CPR"). CPR assumes that the outstanding principal balance of a pool of mortgage loans prepays at a specified constant annual rate. In projecting monthly cash flows, this rate is converted to an equivalent monthly rate.

CPR does not purport to be either a historical description of the prepayment experience of mortgage loans or a prediction of the anticipated rate of prepayment of any mortgage loans, including the Reference Obligations. The percentages of CPR in the tables below do not purport to be historical correlations of relative prepayment experience of the Reference Obligations or predictions of the anticipated relative rate of prepayment of the Reference Obligations. Variations in the prepayment experience and the principal balance of the Reference Obligations that prepay may increase or decrease the percentages of initial Class Principal Balances (and weighted average lives) shown in the Declining Balances Tables below and may affect the weighted average lives shown in the Weighted Average Life Tables below. Such variations may occur even if the average prepayment experience of all such Reference Obligations equals any of the specified percentages of CPR.

It is highly unlikely that the Reference Obligations will have the precise characteristics referred to in this Offering Memorandum or that they will prepay or experience Credit Events or Modification Events at any of the rates specified or times assumed or that Credit Events or Modification Events will be incurred according to one particular pattern. The Weighted Average Life Tables, Credit Event Sensitivity Table, Cumulative Note Write-down Amount Tables and Yield Tables below assume a constant rate of Reference Obligations becoming Credit Event Reference Obligations each month relative to the then-outstanding aggregate unpaid principal balance of the Reference Obligations. This constant default rate ("CDR") does not purport to be either a historical description of the default experience of the Reference Obligations or a prediction of the anticipated rate of defaults on the Reference Obligations. The rate and extent of actual defaults experienced on the Reference Obligations are likely to differ from those assumed and may differ significantly. A rate of 3.0% CDR assumes Reference Obligations become Credit Event Reference Obligations at an annual rate of 3.0% which remains in effect through the remaining lives of such Reference Obligations. Further, it is unlikely the Reference Obligations will become Credit Event Reference Obligations at any specified percentage of CDR.

The Weighted Average Life Tables and the Declining Balances Tables have been prepared on the basis of the Modeling Assumptions described above under "*Assumptions Relating to Weighted Average Life Tables, Declining Balances Tables, Credit Event Sensitivity Table, Cumulative Note Write-down Amount Tables and Yield Tables*". There will likely be discrepancies between the characteristics of the actual mortgage loans included in the Reference Pool and the characteristics of the hypothetical mortgage loans assumed in preparing the Weighted Average Life Tables and the Declining Balances Tables. Any such discrepancy may have an effect upon the percentages of initial Class Principal Balances outstanding set forth in the Declining Balances Tables (and the weighted average lives of the Notes set forth in the Weighted Average Life Tables and the Declining Balances Tables). In addition, to the extent that the mortgage loans that actually are included have characteristics that differ from those assumed in preparing the following Declining Balances Tables, the Class Principal Balance of a related Class of Notes could be reduced to zero earlier or later than indicated by the applicable Declining Balances Table.

Furthermore, the information contained in the Weighted Average Life Tables and the Declining Balances Tables with respect to the weighted average life of any Note is not necessarily indicative of the weighted average life of that Class of Notes that might be calculated or projected under different or varying prepayment assumptions.

It is not likely that all of the Reference Obligations will have the interest rates or remaining terms to maturity assumed or that the Reference Obligations will prepay at the indicated CPR percentages or experience Credit Events at the indicated CDR percentages. In addition, the diverse remaining terms to maturity of the Reference Obligations could produce slower or faster reductions of the Class Principal Balances than indicated in the Declining Balances Tables at the various CPR percentages specified.

Weighted Average Life Tables

Based upon the Modeling Assumptions, the following Weighted Average Life Tables indicate the projected weighted average lives in years of each Class of Notes shown at various CPR percentages and CDR percentages.

Class 1M-1 Weighted Average Life to Maturity (years)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 6.88 | 4.33 | 2.58 | 1.85 | 1.37 | 1.09 | 0.93 | 0.79 |
| 0.25%..... | 7.36 | 5.18 | 2.88 | 1.96 | 1.46 | 1.18 | 0.94 | 0.79 |
| 0.50%..... | 8.05 | 6.43 | 3.25 | 2.12 | 1.55 | 1.22 | 1.00 | 0.83 |
| 0.75%..... | 9.41 | 8.19 | 3.75 | 2.31 | 1.65 | 1.27 | 1.03 | 0.87 |
| 1.00%..... | 9.65 | 9.58 | 4.45 | 2.55 | 1.75 | 1.34 | 1.07 | 0.89 |
| 1.50%..... | 7.72 | 9.97 | 7.31 | 3.24 | 2.05 | 1.49 | 1.16 | 0.94 |
| 2.00%..... | 6.21 | 7.59 | 11.07 | 4.59 | 2.48 | 1.69 | 1.26 | 1.01 |
| 3.00%..... | 4.39 | 5.01 | 6.08 | 9.16 | 4.84 | 2.38 | 1.61 | 1.19 |

Class 1M-2, Class 1M-2Y and Class 1M-2X* Weighted Average Life to Maturity (years)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 18.19 | 12.10 | 7.46 | 5.26 | 3.94 | 3.13 | 2.60 | 2.18 |
| 0.25%..... | 19.03 | 15.09 | 8.94 | 5.93 | 4.35 | 3.39 | 2.76 | 2.30 |
| 0.50%..... | 16.71 | 16.98 | 11.32 | 6.93 | 4.85 | 3.68 | 2.93 | 2.41 |
| 0.75%..... | 12.43 | 15.76 | 12.51 | 8.72 | 5.56 | 4.05 | 3.15 | 2.55 |
| 1.00%..... | 8.79 | 12.69 | 12.31 | 9.33 | 6.81 | 4.56 | 3.43 | 2.73 |
| 1.50%..... | 5.62 | 6.92 | 10.27 | 9.11 | 7.25 | 5.74 | 4.45 | 3.21 |
| 2.00%..... | 4.14 | 4.75 | 5.91 | 8.15 | 7.04 | 5.79 | 4.77 | 3.90 |
| 3.00%..... | 2.72 | 2.95 | 3.28 | 3.82 | 5.40 | 5.34 | 4.65 | 3.99 |

Class 1M-2A, Class 1A-I1*, Class 1A-I2*, Class 1A-I3*, Class 1A-I4*, Class 1E-A1, Class 1E-A2, Class 1E-A3 and Class 1E-A4 Weighted Average Life to Maturity (years)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 15.20 | 8.40 | 4.96 | 3.48 | 2.59 | 2.06 | 1.72 | 1.44 |
| 0.25%..... | 17.09 | 10.47 | 5.67 | 3.77 | 2.80 | 2.17 | 1.82 | 1.50 |
| 0.50%..... | 19.17 | 13.82 | 6.63 | 4.18 | 3.00 | 2.32 | 1.86 | 1.56 |
| 0.75%..... | 17.74 | 18.69 | 8.03 | 4.69 | 3.26 | 2.46 | 1.96 | 1.61 |
| 1.00%..... | 12.23 | 19.44 | 10.30 | 5.37 | 3.55 | 2.62 | 2.06 | 1.68 |
| 1.50%..... | 7.68 | 10.13 | 17.32 | 7.78 | 4.41 | 3.05 | 2.30 | 1.84 |
| 2.00%..... | 5.63 | 6.73 | 9.10 | 13.66 | 5.99 | 3.67 | 2.63 | 2.02 |
| 3.00%..... | 3.67 | 4.08 | 4.70 | 5.80 | 9.71 | 7.75 | 3.79 | 2.59 |

Class 1M-2B, Class 1B-I1*, Class 1B-I2*, Class 1B-I3*, Class 1B-I4*, Class 1E-B1, Class 1E-B2, Class 1E-B3 and Class 1E-B4 Weighted Average Life to Maturity (years)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 19.36 | 11.83 | 7.19 | 5.06 | 3.78 | 3.00 | 2.49 | 2.09 |
| 0.25%..... | 20.01 | 15.15 | 8.45 | 5.61 | 4.13 | 3.24 | 2.62 | 2.21 |
| 0.50%..... | 19.06 | 19.34 | 10.33 | 6.38 | 4.53 | 3.46 | 2.77 | 2.28 |
| 0.75%..... | 12.05 | 18.77 | 13.63 | 7.47 | 5.03 | 3.74 | 2.95 | 2.40 |
| 1.00%..... | 8.64 | 12.07 | 17.75 | 9.17 | 5.69 | 4.08 | 3.14 | 2.53 |
| 1.50%..... | 5.56 | 6.63 | 8.90 | 13.91 | 8.21 | 5.08 | 3.67 | 2.85 |
| 2.00%..... | 4.11 | 4.64 | 5.48 | 7.25 | 10.91 | 7.39 | 4.52 | 3.29 |
| 3.00%..... | 2.71 | 2.91 | 3.19 | 3.58 | 4.22 | 5.78 | 7.31 | 5.71 |

** Interest Only RCR Note. Assumes that a reduction in the Class Principal Balance of the related Exchangeable Note causes a corresponding reduction in the Class Notional Amount of the related Interest Only RCR Note.*

Class 1M-2C, Class 1C-I1*, Class 1C-I2*, Class 1C-I3*, Class 1C-I4*, Class 1E-C1, Class 1E-C2, Class 1E-C3, Class 1E-C4, Class 1-J1, Class 1-J2**, Class 1-J3** and Class 1-J4** Weighted Average Life to Maturity (years)**

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 20.01 | 16.08 | 10.23 | 7.25 | 5.46 | 4.33 | 3.58 | 3.00 |
| 0.25%..... | 20.01 | 19.67 | 12.70 | 8.39 | 6.13 | 4.75 | 3.84 | 3.19 |
| 0.50%..... | 11.91 | 17.77 | 16.99 | 10.23 | 7.02 | 5.26 | 4.17 | 3.40 |
| 0.75%..... | 7.50 | 9.83 | 15.87 | 14.00 | 8.40 | 5.95 | 4.55 | 3.66 |
| 1.00%..... | 5.50 | 6.56 | 8.86 | 13.46 | 11.21 | 6.98 | 5.08 | 3.97 |
| 1.50%..... | 3.60 | 4.00 | 4.59 | 5.66 | 9.14 | 9.09 | 7.39 | 4.95 |
| 2.00%..... | 2.68 | 2.89 | 3.16 | 3.55 | 4.21 | 6.33 | 7.15 | 6.40 |
| 3.00%..... | 1.78 | 1.86 | 1.96 | 2.09 | 2.26 | 2.49 | 2.85 | 3.66 |

Class 1E-D1, Class 1E-D2, Class 1E-D3, Class 1E-D4, Class 1E-D5, Class 1-X1*, Class 1-X2*, Class 1-X3* and Class 1-X4* Weighted Average Life to Maturity (years)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 17.28 | 10.12 | 6.07 | 4.27 | 3.19 | 2.53 | 2.10 | 1.77 |
| 0.25%..... | 18.55 | 12.81 | 7.06 | 4.69 | 3.47 | 2.71 | 2.22 | 1.85 |
| 0.50%..... | 19.12 | 16.58 | 8.48 | 5.28 | 3.77 | 2.89 | 2.32 | 1.92 |
| 0.75%..... | 14.89 | 18.73 | 10.83 | 6.08 | 4.14 | 3.10 | 2.45 | 2.00 |
| 1.00%..... | 10.43 | 15.76 | 14.03 | 7.27 | 4.62 | 3.35 | 2.60 | 2.11 |
| 1.50%..... | 6.62 | 8.38 | 13.11 | 10.84 | 6.31 | 4.06 | 2.99 | 2.34 |
| 2.00%..... | 4.87 | 5.69 | 7.29 | 10.45 | 8.45 | 5.53 | 3.58 | 2.66 |
| 3.00%..... | 3.19 | 3.50 | 3.94 | 4.69 | 6.97 | 6.76 | 5.55 | 4.15 |

**Class 1E-F1, Class 1E-F2, Class 1E-F3, Class 1E-F4, Class 1E-F5, Class 1-Y1*, Class 1-Y2*,
Class 1-Y3*, Class 1-Y4*, Class 1-K1**, Class 1-K2**, Class 1-K3** and Class 1-K4** Weighted
Average Life to Maturity (years)**

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 19.68 | 13.96 | 8.71 | 6.15 | 4.62 | 3.67 | 3.03 | 2.55 |
| 0.25%..... | 20.01 | 17.41 | 10.57 | 7.00 | 5.13 | 4.00 | 3.23 | 2.70 |
| 0.50%..... | 15.48 | 18.55 | 13.66 | 8.31 | 5.78 | 4.36 | 3.47 | 2.84 |
| 0.75%..... | 9.77 | 14.30 | 14.75 | 10.74 | 6.72 | 4.85 | 3.75 | 3.03 |
| 1.00%..... | 7.07 | 9.31 | 13.31 | 11.31 | 8.45 | 5.53 | 4.11 | 3.25 |
| 1.50%..... | 4.58 | 5.31 | 6.74 | 9.78 | 8.68 | 7.08 | 5.53 | 3.90 |
| 2.00%..... | 3.40 | 3.76 | 4.32 | 5.40 | 7.56 | 6.86 | 5.84 | 4.85 |
| 3.00%..... | 2.24 | 2.39 | 2.58 | 2.84 | 3.24 | 4.13 | 5.08 | 4.69 |

** Interest Only RCR Note. Assumes that a reduction in the Class Principal Balance of the related Exchangeable Note causes a corresponding reduction in the Class Notional Amount of the related Interest Only RCR Note.*

*** Based only on reductions in the Class Principal Balance of the Class of Exchangeable Notes included in the related Combination.*

Class 1B-1, Class 1B-1Y and Class 1B-1X* Weighted Average Life to Maturity (years)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00%..... | 20.01 | 19.85 | 15.89 | 11.66 | 8.90 | 7.09 | 5.85 | 4.91 |
| 0.25%..... | 10.80 | 14.22 | 15.77 | 13.68 | 11.15 | 8.96 | 6.94 | 5.62 |
| 0.50%..... | 4.95 | 5.95 | 8.67 | 10.75 | 9.84 | 8.49 | 7.26 | 6.22 |
| 0.75%..... | 3.25 | 3.61 | 4.19 | 5.57 | 7.71 | 7.38 | 6.63 | 5.85 |
| 1.00%..... | 2.42 | 2.61 | 2.87 | 3.26 | 4.11 | 5.84 | 5.78 | 5.34 |
| 1.50%..... | 1.61 | 1.69 | 1.78 | 1.90 | 2.07 | 2.32 | 2.84 | 3.88 |
| 2.00%..... | 1.21 | 1.25 | 1.30 | 1.36 | 1.43 | 1.52 | 1.65 | 1.85 |
| 3.00%..... | 0.82 | 0.83 | 0.85 | 0.87 | 0.90 | 0.93 | 0.97 | 1.01 |

** Interest Only RCR Note. Assumes that a reduction in the Class Principal Balance of the related Exchangeable Note causes a corresponding reduction in the Class Notional Amount of the related Interest Only RCR Note.*

Declining Balances Tables

Based upon the Modeling Assumptions, the following Declining Balances Tables indicate the projected weighted average lives of each Class of Notes and sets forth the percentages of the initial Class Principal Balance of each Class that would be outstanding after each of the dates shown at various CPR percentages.

Percentages of Original Class Principal Balances Outstanding and Weighted Average Lives

| Date | Class 1M-1 | | | | | | | |
|--|----------------------------------|-----------|------------|------------|------------|------------|------------|------------|
| | CPR Prepayment Assumption | | | | | | | |
| | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
| Closing Date | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021 | 94 | 94 | 94 | 94 | 75 | 54 | 36 | 15 |
| January 25, 2022 | 87 | 87 | 73 | 39 | 3 | 0 | 0 | 0 |
| January 25, 2023 | 81 | 81 | 34 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2024 | 74 | 61 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2025 | 66 | 38 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2026 | 59 | 17 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2027 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2028 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2029 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2030 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2031 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2032 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2033 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2034 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2035 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2036 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2037 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity | 6.88 | 4.33 | 2.58 | 1.85 | 1.37 | 1.09 | 0.93 | 0.79 |
| WAL (years) to Early Redemption Date* | 5.39 | 4.33 | 2.58 | 1.85 | 1.37 | 1.09 | 0.93 | 0.79 |

* The Early Redemption Date occurs on the first eligible Payment Date.

Class 1M-2, Class 1M-2Y and Class 1M-2X**

CPR Prepayment Assumption

| Date | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
|--|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Closing Date | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2022 | 100 | 100 | 100 | 100 | 100 | 83 | 67 | 51 |
| January 25, 2023 | 100 | 100 | 100 | 94 | 69 | 48 | 31 | 15 |
| January 25, 2024 | 100 | 100 | 99 | 70 | 43 | 22 | 5 | 0 |
| January 25, 2025 | 100 | 100 | 81 | 50 | 23 | 3 | 0 | 0 |
| January 25, 2026 | 100 | 100 | 66 | 33 | 7 | 0 | 0 | 0 |
| January 25, 2027 | 100 | 98 | 51 | 19 | 0 | 0 | 0 | 0 |
| January 25, 2028 | 100 | 87 | 39 | 7 | 0 | 0 | 0 | 0 |
| January 25, 2029 | 100 | 76 | 28 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2030 | 100 | 66 | 18 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2031 | 100 | 57 | 9 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2032 | 100 | 48 | 1 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2033 | 97 | 39 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2034 | 91 | 31 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2035 | 85 | 24 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2036 | 78 | 17 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2037 | 71 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038 | 64 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity | 18.19 | 12.10 | 7.46 | 5.26 | 3.94 | 3.13 | 2.60 | 2.18 |
| WAL (years) to Early Redemption Date* | 7.01 | 7.00 | 6.25 | 5.11 | 3.94 | 3.13 | 2.60 | 2.18 |

* The Early Redemption Date occurs on the first eligible Payment Date.

** Interest Only RCR Note. Indicates the percentage of the original Class Notional Amount outstanding.

Class 1M-2A, Class 1A-I1, Class 1A-I2**, Class 1A-I3**, Class 1A-I4**,
Class 1E-A1, Class 1E-A2, Class 1E-A3 and Class 1E-A4**

CPR Prepayment Assumption

| Date | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
|--|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Closing Date | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2022 | 100 | 100 | 100 | 100 | 100 | 50 | 2 | 0 |
| January 25, 2023 | 100 | 100 | 100 | 82 | 7 | 0 | 0 | 0 |
| January 25, 2024 | 100 | 100 | 98 | 10 | 0 | 0 | 0 | 0 |
| January 25, 2025 | 100 | 100 | 44 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2026 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2027 | 100 | 94 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2028 | 100 | 61 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2029 | 100 | 29 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2030 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2031 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2032 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2033 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2034 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2035 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2036 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2037 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity | 15.20 | 8.40 | 4.96 | 3.48 | 2.59 | 2.06 | 1.72 | 1.44 |
| WAL (years) to Early Redemption Date* | 7.01 | 7.00 | 4.96 | 3.48 | 2.59 | 2.06 | 1.72 | 1.44 |

* The Early Redemption Date occurs on the first eligible Payment Date.

** Interest Only RCR Note. Indicates the percentage of the original Class Notional Amount outstanding.

Class 1M-2B, Class 1B-I1, Class 1B-I2**, Class 1B-I3**, Class 1B-I4**,
Class 1E-B1, Class 1E-B2, Class 1E-B3 and Class 1E-B4**

CPR Prepayment Assumption

| Date | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
|--|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Closing Date | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2022..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 54 |
| January 25, 2023..... | 100 | 100 | 100 | 100 | 100 | 44 | 0 | 0 |
| January 25, 2024..... | 100 | 100 | 100 | 100 | 30 | 0 | 0 | 0 |
| January 25, 2025..... | 100 | 100 | 100 | 49 | 0 | 0 | 0 | 0 |
| January 25, 2026..... | 100 | 100 | 97 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2027..... | 100 | 100 | 54 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2028..... | 100 | 100 | 16 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2029..... | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2030..... | 100 | 99 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2031..... | 100 | 70 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2032..... | 100 | 44 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2033..... | 100 | 18 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2034..... | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2035..... | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2036..... | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2037..... | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038..... | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039..... | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity | 19.36 | 11.83 | 7.19 | 5.06 | 3.78 | 3.00 | 2.49 | 2.09 |
| WAL (years) to Early Redemption Date* | 7.01 | 7.01 | 6.77 | 5.06 | 3.78 | 3.00 | 2.49 | 2.09 |

* The Early Redemption Date occurs on the first eligible Payment Date.

** Interest Only RCR Note. Indicates the percentage of the original Class Notional Amount outstanding.

Class 1M-2C, Class 1C-I1, Class 1C-I2**, Class 1C-I3**, Class 1C-I4**,
Class 1E-C1, Class 1E-C2, Class 1E-C3, Class 1E-C4, Class 1-J1***, Class
1-J2***, Class 1-J3*** and Class 1-J4*****

CPR Prepayment Assumption

| Date | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
|--|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Closing Date | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2022..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2023..... | 100 | 100 | 100 | 100 | 100 | 100 | 92 | 44 |
| January 25, 2024..... | 100 | 100 | 100 | 100 | 100 | 66 | 16 | 0 |
| January 25, 2025..... | 100 | 100 | 100 | 100 | 69 | 9 | 0 | 0 |
| January 25, 2026..... | 100 | 100 | 100 | 98 | 21 | 0 | 0 | 0 |
| January 25, 2027..... | 100 | 100 | 100 | 56 | 0 | 0 | 0 | 0 |
| January 25, 2028..... | 100 | 100 | 100 | 20 | 0 | 0 | 0 | 0 |
| January 25, 2029..... | 100 | 100 | 83 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2030..... | 100 | 100 | 53 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2031..... | 100 | 100 | 27 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2032..... | 100 | 100 | 3 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2033..... | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2034..... | 100 | 94 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2035..... | 100 | 71 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2036..... | 100 | 50 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2037..... | 100 | 29 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038..... | 100 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039..... | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity..... | 20.01 | 16.08 | 10.23 | 7.25 | 5.46 | 4.33 | 3.58 | 3.00 |
| WAL (years) to Early Redemption Date* | 7.01 | 7.01 | 7.01 | 6.79 | 5.46 | 4.33 | 3.58 | 3.00 |

* The Early Redemption Date occurs on the first eligible Payment Date.

** Interest Only RCR Note. Indicates the percentage of the original Class Notional Amount outstanding.

*** Based only on reductions in the Class Principal Balance of the Class of Exchangeable Notes included in the related Combination.

Class 1E-D1, Class 1E-D2, Class 1E-D3, Class 1E-D4, Class 1E-D5, Class 1-X1, Class 1-X2**, Class 1-X3** and Class 1-X4****

CPR Prepayment Assumption

| Date | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
|---|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Closing Date..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2022..... | 100 | 100 | 100 | 100 | 100 | 75 | 51 | 27 |
| January 25, 2023..... | 100 | 100 | 100 | 91 | 54 | 22 | 0 | 0 |
| January 25, 2024..... | 100 | 100 | 99 | 55 | 15 | 0 | 0 | 0 |
| January 25, 2025..... | 100 | 100 | 72 | 25 | 0 | 0 | 0 | 0 |
| January 25, 2026..... | 100 | 100 | 48 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2027..... | 100 | 97 | 27 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2028..... | 100 | 80 | 8 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2029..... | 100 | 64 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2030..... | 100 | 49 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2031..... | 100 | 35 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2032..... | 100 | 22 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2033..... | 96 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2034..... | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2035..... | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2036..... | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2037..... | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038..... | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039..... | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity..... | 17.28 | 10.12 | 6.07 | 4.27 | 3.19 | 2.53 | 2.10 | 1.77 |
| WAL (years) to Early Redemption Date* | 7.01 | 7.00 | 5.86 | 4.27 | 3.19 | 2.53 | 2.10 | 1.77 |

* The Early Redemption Date occurs on the first eligible Payment Date.

** Interest Only RCR Note. Indicates the percentage of the original Class Notional Amount outstanding.

Class 1E-F1, Class 1E-F2, Class 1E-F3, Class 1E-F4, Class 1E-F5, Class 1-Y1, Class 1-Y2**, Class 1-Y3**, Class 1-Y4**, Class 1-K1***, Class 1-K2***, Class 1-K3*** and Class 1-K4*****

CPR Prepayment Assumption

| Date | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
|---|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Closing Date | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2022..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 77 |
| January 25, 2023..... | 100 | 100 | 100 | 100 | 100 | 72 | 46 | 22 |
| January 25, 2024..... | 100 | 100 | 100 | 100 | 65 | 33 | 8 | 0 |
| January 25, 2025..... | 100 | 100 | 100 | 75 | 34 | 4 | 0 | 0 |
| January 25, 2026..... | 100 | 100 | 98 | 49 | 11 | 0 | 0 | 0 |
| January 25, 2027..... | 100 | 100 | 77 | 28 | 0 | 0 | 0 | 0 |
| January 25, 2028..... | 100 | 100 | 58 | 10 | 0 | 0 | 0 | 0 |
| January 25, 2029..... | 100 | 100 | 41 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2030..... | 100 | 99 | 27 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2031..... | 100 | 85 | 13 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2032..... | 100 | 72 | 2 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2033..... | 100 | 59 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2034..... | 100 | 47 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2035..... | 100 | 36 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2036..... | 100 | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2037..... | 100 | 15 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038..... | 95 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039..... | 84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity | 19.68 | 13.96 | 8.71 | 6.15 | 4.62 | 3.67 | 3.03 | 2.55 |
| WAL (years) to Early Redemption Date* | 7.01 | 7.01 | 6.89 | 5.92 | 4.62 | 3.67 | 3.03 | 2.55 |

* The Early Redemption Date occurs on the first eligible Payment Date.

** Interest Only RCR Note. Indicates the percentage of the original Class Notional Amount outstanding.

*** Based only on reductions in the Class Principal Balance of the Class of Exchangeable Notes included in the related Combination.

Class 1B-1, Class 1B-1Y and Class 1B-1X**

CPR Prepayment Assumption

| Date | 0% | 5% | 10% | 15% | 20% | 25% | 30% | 35% |
|--|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Closing Date | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2021..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2022..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2023..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| January 25, 2024..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 78 |
| January 25, 2025..... | 100 | 100 | 100 | 100 | 100 | 100 | 69 | 40 |
| January 25, 2026..... | 100 | 100 | 100 | 100 | 100 | 71 | 39 | 15 |
| January 25, 2027..... | 100 | 100 | 100 | 100 | 86 | 45 | 18 | 0 |
| January 25, 2028..... | 100 | 100 | 100 | 100 | 61 | 26 | 4 | 0 |
| January 25, 2029..... | 100 | 100 | 100 | 92 | 42 | 11 | 0 | 0 |
| January 25, 2030..... | 100 | 100 | 100 | 71 | 26 | 1 | 0 | 0 |
| January 25, 2031..... | 100 | 100 | 100 | 54 | 14 | 0 | 0 | 0 |
| January 25, 2032..... | 100 | 100 | 100 | 39 | 5 | 0 | 0 | 0 |
| January 25, 2033..... | 100 | 100 | 85 | 27 | 0 | 0 | 0 | 0 |
| January 25, 2034..... | 100 | 100 | 70 | 17 | 0 | 0 | 0 | 0 |
| January 25, 2035..... | 100 | 100 | 56 | 9 | 0 | 0 | 0 | 0 |
| January 25, 2036..... | 100 | 100 | 44 | 2 | 0 | 0 | 0 | 0 |
| January 25, 2037..... | 100 | 100 | 34 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2038..... | 100 | 100 | 24 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2039..... | 100 | 93 | 16 | 0 | 0 | 0 | 0 | 0 |
| January 25, 2040..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WAL (years) to Maturity | 20.01 | 19.85 | 15.89 | 11.66 | 8.90 | 7.09 | 5.85 | 4.91 |
| WAL (years) to Early Redemption Date* | 7.01 | 7.01 | 7.01 | 7.01 | 6.98 | 6.48 | 5.51 | 4.62 |

* The Early Redemption Date occurs on the first eligible Payment Date.

** Interest Only RCR Note. Indicates the percentage of the original Class Notional Amount outstanding.

Yield Considerations with Respect to the Notes

The weighted average life of, and the yield to maturity on, the Notes will be sensitive to the rate and timing of Credit Events and Modification Events on the Reference Obligations (and the severity of losses realized with respect thereto). If the actual rate of Credit Events and Modification Events on the Reference Obligations is higher than those prospective investors assumed, the actual yield to maturity of a Note may be lower than the expected yield. The timing of Credit Events and Modification Events on Reference Obligations will also affect prospective investors' actual yield to maturity, even if the rate of Credit Events and Modification Events is consistent with prospective investors' expectations.

Credit Event Sensitivity Tables

Based upon the Modeling Assumptions, the following Cumulative Credit Events Tables indicate the projected cumulative Credit Event Amount divided by the aggregate UPB of the Reference Obligations as of the Cut-off Date, shown at various CPR percentages and CDR percentages.

Cumulative Credit Events (as % of Cut-off Date Balance)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 3.79% | 2.52% | 1.77% | 1.31% | 1.01% | 0.81% | 0.67% | 0.56% |
| 0.50% | 7.42% | 4.95% | 3.49% | 2.59% | 2.01% | 1.62% | 1.33% | 1.12% |
| 0.75% | 10.90% | 7.30% | 5.17% | 3.85% | 2.99% | 2.41% | 1.99% | 1.67% |
| 1.00% | 14.24% | 9.57% | 6.80% | 5.08% | 3.96% | 3.19% | 2.64% | 2.22% |
| 1.50% | 20.52% | 13.89% | 9.93% | 7.46% | 5.84% | 4.72% | 3.91% | 3.31% |
| 2.00% | 26.29% | 17.92% | 12.90% | 9.74% | 7.66% | 6.21% | 5.16% | 4.37% |
| 3.00% | 36.48% | 25.23% | 18.39% | 14.04% | 11.12% | 9.08% | 7.58% | 6.44% |

Cumulative Note Write-down Amount Tables

Based upon the Modeling Assumptions, the following Cumulative Note Write-down Amount Tables indicate the projected cumulative write-down of the Class Principal Balance of a Note due to allocation of Tranche Write-down Amounts as a percentage of the Note's original Class Principal Balance shown at various CPR percentages and CDR percentages.

Class 1M-1 Cumulative Write-down Amount (as % of the Class 1M-1 Original Class Principal Balance)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.50% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.75% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.00% | 35.27% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.50% | 60.49% | 44.85% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 2.00% | 71.62% | 64.98% | 34.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 3.00% | 81.87% | 79.56% | 75.59% | 59.91% | 0.00% | 0.00% | 0.00% | 0.00% |

Class 1M-2, Class 1M-2Y and Class 1M-2X Cumulative Write-down Amount (as % of the Class 1M-2 and Class 1M-2Y Original Class Principal Balances or Class 1M-2X Original Class Notional Amount)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.50% | 47.63% | 15.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.75% | 93.46% | 46.01% | 17.96% | 0.63% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.00% | 100.00% | 75.89% | 39.41% | 16.80% | 2.07% | 0.00% | 0.00% | 0.00% |
| 1.50% | 100.00% | 100.00% | 80.63% | 48.13% | 26.81% | 12.11% | 1.49% | 0.00% |
| 2.00% | 100.00% | 100.00% | 100.00% | 78.18% | 50.76% | 31.74% | 17.93% | 7.50% |
| 3.00% | 100.00% | 100.00% | 100.00% | 100.00% | 96.38% | 69.50% | 49.80% | 34.78% |

Class 1M-2A, Class 1A-I1, Class 1A-I2, Class 1A-I3, Class 1A-I4, Class 1E-A1, Class 1E-A2, Class 1E-A3 and Class 1E-A4 Cumulative Write-down Amount (as % of the Class 1M-2A, Class 1E-A1, Class 1E-A2, Class 1E-A3 and Class 1E-A4 Original Class Principal Balances or Class 1A-I1, Class 1A-I2, Class 1A-I3 and Class 1A-I4 Original Class Notional Amounts)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.50% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.75% | 80.39% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.00% | 100.00% | 27.66% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.50% | 100.00% | 100.00% | 41.88% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 2.00% | 100.00% | 100.00% | 100.00% | 34.53% | 0.00% | 0.00% | 0.00% | 0.00% |
| 3.00% | 100.00% | 100.00% | 100.00% | 100.00% | 89.13% | 8.50% | 0.00% | 0.00% |

Class 1M-2B, Class 1B-I1, Class 1B-I2, Class 1B-I3, Class 1B-I4, Class 1E-B1, Class 1E-B2, Class 1E-B3 and Class 1E-B4 Cumulative Write-down Amount (as % of the Class 1M-2B, Class 1E-B1, Class 1E-B2, Class 1E-B3 and Class 1E-B4 Original Class Principal Balances or Class 1B-I1, Class 1B-I2, Class 1B-I3 and Class 1B-I4 Original Class Notional Amounts)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.50% | 42.89% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.75% | 100.00% | 38.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.00% | 100.00% | 100.00% | 18.24% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.50% | 100.00% | 100.00% | 100.00% | 44.39% | 0.00% | 0.00% | 0.00% | 0.00% |
| 2.00% | 100.00% | 100.00% | 100.00% | 100.00% | 52.28% | 0.00% | 0.00% | 0.00% |
| 3.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 49.39% | 4.35% |

Class 1M-2C, Class 1C-I1, Class 1C-I2, Class 1C-I3, Class 1C-I4, Class 1E-C1, Class 1E-C2, Class 1E-C3, Class 1E-C4, Class 1-J1, Class 1-J2, Class 1-J3 and Class 1-J4 Cumulative Write-down Amount (as % of the Class 1M-2C, Class 1E-C1, Class 1E-C2, Class 1E-C3, Class 1E-C4, Class 1-J1, Class 1-J2, Class 1-J3 and Class 1-J4 Original Class Principal Balances or Class 1C-I1, Class 1C-I2, Class 1C-I3 and Class 1C-I4 Original Class Notional Amounts)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.50% | 100.00% | 45.27% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.75% | 100.00% | 100.00% | 53.89% | 1.90% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.00% | 100.00% | 100.00% | 100.00% | 50.41% | 6.20% | 0.00% | 0.00% | 0.00% |
| 1.50% | 100.00% | 100.00% | 100.00% | 100.00% | 80.44% | 36.34% | 4.48% | 0.00% |
| 2.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 95.23% | 53.80% | 22.49% |
| 3.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

Class 1E-D1, Class 1E-D2, Class 1E-D3, Class 1E-D4, Class 1E-D5, Class 1-X1, Class 1-X2, Class 1-X3 and Class 1-X4 Cumulative Write-down Amount (as % of the Class 1E-D1, Class 1E-D2, Class 1E-D3, Class 1E-D4 and Class 1E-D5 Original Class Principal Balances or Class 1-X1, Class 1-X2, Class 1-X3 and Class 1-X4 Original Class Notional Amounts)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.50% | 21.45% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.75% | 90.19% | 19.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.00% | 100.00% | 63.83% | 9.12% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.50% | 100.00% | 100.00% | 70.94% | 22.20% | 0.00% | 0.00% | 0.00% | 0.00% |
| 2.00% | 100.00% | 100.00% | 100.00% | 67.26% | 26.14% | 0.00% | 0.00% | 0.00% |
| 3.00% | 100.00% | 100.00% | 100.00% | 100.00% | 94.57% | 54.25% | 24.70% | 2.18% |

Class 1E-F1, Class 1E-F2, Class 1E-F3, Class 1E-F4, Class 1E-F5, Class 1-Y1, Class 1-Y2, Class 1-Y3, Class 1-Y4, Class 1-K1, Class 1-K2, Class 1-K3 and Class 1-K4 Cumulative Write-down Amount (as % of the Class 1E-F1, Class 1E-F2, Class 1E-F3, Class 1E-F4, Class 1E-F5, Class 1-K1, Class 1-K2, Class 1-K3 and Class 1-K4 Original Class Principal Balances or Class 1-Y1, Class 1-Y2, Class 1-Y3 and Class 1-Y4 Original Class Notional Amounts)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.50% | 71.45% | 22.64% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.75% | 100.00% | 69.01% | 26.94% | 0.95% | 0.00% | 0.00% | 0.00% | 0.00% |
| 1.00% | 100.00% | 100.00% | 59.12% | 25.20% | 3.10% | 0.00% | 0.00% | 0.00% |
| 1.50% | 100.00% | 100.00% | 100.00% | 72.20% | 40.22% | 18.17% | 2.24% | 0.00% |
| 2.00% | 100.00% | 100.00% | 100.00% | 100.00% | 76.14% | 47.61% | 26.90% | 11.24% |
| 3.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 74.70% | 52.18% |

Class 1B-1, Class 1B-1Y and Class 1B-1X Cumulative Write-down Amount (as % of the Class 1B-1 and Class 1B-1Y Original Class Principal Balances or Class 1B-1X Original Class Notional Amount)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 0.25% | 99.59% | 57.19% | 32.30% | 17.02% | 7.15% | 0.45% | 0.00% | 0.00% |
| 0.50% | 100.00% | 100.00% | 89.67% | 59.77% | 40.40% | 27.20% | 17.76% | 10.71% |
| 0.75% | 100.00% | 100.00% | 100.00% | 100.00% | 73.09% | 53.60% | 39.61% | 29.16% |
| 1.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 79.64% | 61.23% | 47.44% |
| 1.50% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 83.52% |
| 2.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 3.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

Yield Tables

Based upon the Modeling Assumptions and the assumed prices in the table captions, the following tables show pre-tax yields to maturity (corporate bond equivalent) of the Notes at various CPR percentages and CDR percentages. The Modeling Assumptions provide that the Class 1M-2X and Class 1B-1X Notes receive no cash flows, and accordingly, those Classes of Notes are not shown in the tables below.

Class 1M-1 Pre-Tax Yield to Maturity (Assumed Price = ____ %)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1M-2 Pre-Tax Yield to Maturity (Assumed Price = ____ %)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1M-2Y Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1M-2A Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1M-2B Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1M-2C Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1A-I1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1A-I2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1A-I3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1A-I4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-A1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-A2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-A3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-A4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1B-I1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1B-I2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1B-I3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1B-I4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-B1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-B2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-B3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-B4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1C-I1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1C-I2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1C-I3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1C-I4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-C1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-C2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-C3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-C4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-D1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-D2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-D3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-D4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-D5 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-F1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-F2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-F3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-F4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1E-F5 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-X1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-X2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-X3 Pre-Tax Yield to Maturity (Assumed Price = ____ %)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-X4 Pre-Tax Yield to Maturity (Assumed Price = ____ %)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-Y1 Pre-Tax Yield to Maturity (Assumed Price = ____ %)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-Y2 Pre-Tax Yield to Maturity (Assumed Price = ____ %)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-Y3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-Y4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-J1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-J2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-J3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-J4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-K1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-K2 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-K3 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1-K4 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1B-1 Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Class 1B-1Y Pre-Tax Yield to Maturity (Assumed Price = ____%)

| CDR | 0% CPR | 5% CPR | 10% CPR | 15% CPR | 20% CPR | 25% CPR | 30% CPR | 35% CPR |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 0.00% | | | | | | | | |
| 0.25% | | | | | | | | |
| 0.50% | | | | | | | | |
| 0.75% | | | | | | | | |
| 1.00% | | | | | | | | |
| 1.50% | | | | | | | | |
| 2.00% | | | | | | | | |
| 3.00% | | | | | | | | |

Prospective investors should make investment decisions based on determinations of anticipated rates of prepayments and Credit Events and Modification Events under a variety of scenarios. Prospective investors should

fully consider the risk that the occurrence of Credit Events and Modification Events on the Reference Obligations could result in the failure to fully recover investments.

USE OF PROCEEDS

The Issuer will deliver the proceeds of the offering of the Notes to the Custodian, which will deposit them in the Cash Collateral Account. From time to time, the Investment Agent will direct the Custodian to invest the proceeds in Eligible Investments pursuant to the terms of the Investment Agency Agreement, as further described herein under "*Risk Factors — Risks Related to Eligible Investments*" and "*The Agreements — The Indenture*."

CERTAIN LEGAL ASPECTS OF THE REFERENCE OBLIGATIONS

The following discussion provides general summaries of certain legal aspects of mortgage loans which are general in nature. The summaries do not purport to be complete. They do not reflect the laws of any particular state nor the laws of all states in which the mortgaged properties may be situated. This is because these legal aspects are governed in part by the law of the state that applies to a particular mortgaged property and the laws of the states may vary substantially. You should refer to the applicable federal and state laws governing the Reference Obligations.

Security Instruments

Mortgages and Deed of Trust. The Reference Obligations are evidenced by promissory notes or other similar evidences of indebtedness secured by first mortgages, deeds of trust or similar security instruments, depending upon the prevailing practice and law in the state in which the related mortgaged property is located, on residential properties consisting of one- to four-family dwelling units, townhouses, individual condominium units, individual units in planned unit developments, individual co-operative units or manufactured homes. Each promissory note and related mortgage loan are obligations of one or more borrowers and require the related borrower to make monthly payments of principal and interest. In some states, a mortgage or deed of trust creates a lien upon the real property encumbered by the mortgage or deed of trust. However, in other states, the mortgage or deed of trust conveys legal title to the property, respectively, to the mortgagee or to a trustee for the benefit of the mortgagee subject to a condition subsequent (i.e., the payment of the indebtedness secured thereby). The lien created by the mortgage or deed of trust is not prior to the lien for real estate taxes and assessments and other charges imposed under governmental police powers. Priority between mortgages depends on their terms or on the terms of separate subordination or inter-creditor agreements, on the knowledge of the parties in some cases and generally on the order of recordation of the mortgages in the appropriate recording office. There are two parties to a mortgage, the borrower and the lender. In the case of a land trust, there are three parties because title to the property is held by a land trustee under a land trust agreement of which the borrower is the beneficiary; at origination of a mortgage loan, the borrower executes a separate undertaking to make payments on the mortgage note. Although a deed of trust is similar to a mortgage, a deed of trust has three parties: the trustor, who is the borrower; the beneficiary, who is the lender; and a third-party grantee called the trustee. Under a deed of trust, the borrower grants the property, irrevocably until the debt is paid, in trust, generally with a power of sale, to the trustee to secure payment of the obligation. The trustee's authority under a deed of trust, the grantee's authority under a deed to secure debt and the mortgagee's authority under a mortgage are governed by the law of the state in which the real property is located, the express provisions of the deed of trust or mortgage, and, in deed of trust transactions, the directions of the beneficiary.

Co-operative Loans. Some of the Reference Obligations are co-operative loans. A co-operative is owned by tenant-stockholders, who, through ownership of stock, shares or membership certificates in the corporation, receive proprietary leases or occupancy agreements which confer exclusive rights to occupy specific co-operative units. The co-operative owns the real property and the specific units and is responsible for management of the property. An ownership interest in a co-operative and the accompanying rights are financed through a co-operative share loan evidenced by a promissory note and secured by a security interest in the co-operative shares or occupancy agreement or proprietary lease.

Foreclosure

Foreclosing Mortgages and Deeds of Trust. Foreclosure of a deed of trust in most states is generally most efficiently accomplished by a non-judicial trustee's sale under a specific provision in the deed of trust which

authorizes the trustee to sell the property upon any default by the borrower under the terms of the note or deed of trust. In addition to any notice requirements contained in a deed of trust, in some states the trustee must record a notice of default and send a copy to the trustor and to any person who has recorded a request for a copy of notice of default and notice of sale. In addition, the trustee must provide notice in some states to any other individual having an interest of record in the real property, including any junior lienholders.

In some states, the trustor has the right to reinstate the loan at any time following default until shortly before the trustee's sale. Generally in these states, the borrower, or any other person having a junior encumbrance on the real estate, may, during a reinstatement period, cure the default by paying the entire amount in arrears plus the costs and expense incurred in enforcing the obligation. If the deed of trust is not reinstated within a specified period, a notice of sale must be posted in a public place and, in most states, published for a specific period of time in one or more newspapers in a specified manner prior to the date of the trustee's sale. In addition, some state laws require that a copy of the notice of sale be posted on the property and sent to all parties having an interest of record in the real property.

Generally, the foreclosure action is initiated by the service of legal pleadings upon all parties having an interest of record in the real property. Delays in completion of the foreclosure may occasionally result from difficulties in locating necessary parties. Over the past few years, judicial foreclosure proceedings have become increasingly contested, with challenges often raised to the right of the foreclosing party to maintain the foreclosure action. The resolution of these proceedings can be time-consuming.

In the case of foreclosure under either a mortgage or a deed of trust, the sale by the referee or other designated officer or by the trustee is a public sale. The proceeds received by the referee or trustee from the sale are applied first to the costs, fees and expenses of the sale and then in satisfaction of the indebtedness secured by the mortgage or deed of trust under which the sale was conducted. Any remaining proceeds are generally payable to the holders of junior mortgages or deeds of trust and other liens and claims in order of their priority, whether or not the borrower is in default under such instruments. Any additional proceeds are generally payable to the borrower or trustor. The payment of the proceeds to the holders of junior mortgages may occur in the foreclosure action of the senior lender or may require the institution of separate legal proceedings. It is common for the lender to purchase the property from the trustee, referee or other designated officer for a credit bid less than or equal to the unpaid principal amount of the note plus the accrued and unpaid interest and fees due under the note and the expense of foreclosure. If the credit bid is equal to, or more than, the borrower's obligations on the loan, the borrower's debt will be extinguished. However, if the lender purchases the property for an amount less than the total amount owed to the lender, it preserves its right against a borrower to seek a deficiency judgment if such a remedy is available under state law and the related loan documents, in which case the borrower's obligation will continue to the extent of the deficiency. Regardless of the purchase price paid by the foreclosing lender, the lender will be responsible to pay the costs, fees and expenses of the sale, which sums are generally added to the borrower's indebtedness. In some states, there is a statutory minimum purchase price which the lender must offer for the property and generally, state law controls the maximum amount of foreclosure costs and expenses, including attorneys' fees, which may be recovered by a lender. Thereafter, subject to the right of the borrower in some states to remain in possession during any redemption period, the lender will assume the burdens of ownership, including obtaining hazard insurance, paying taxes and making the repairs at its own expense as are necessary to render the property suitable for sale. Generally, the lender will obtain the services of a real estate broker and pay the broker's commission in connection with the subsequent sale of the property. Depending upon market conditions, the ultimate proceeds of the sale of the property may not equal the lender's investment in the property and, as described above, in some states, the lender may be entitled to a deficiency judgment. Any such loss in connection with a Reference Obligation will be treated as an actual realized loss experienced on such Reference Obligation.

Foreclosure proceedings are governed by general equitable principles. Some of these equitable principles are designed to relieve the borrower from the legal effect of its defaults under the loan documents. Examples of judicial remedies that have been fashioned include judicial requirements that the lender undertake affirmative and expensive actions to determine the causes for the borrower's default and the likelihood that the borrower will be able to reinstate the loan. In some cases, courts have substituted their judgment for the lender's judgment and have required that lenders reinstate loans or recast payment schedules in order to accommodate borrowers who are suffering from temporary financial hardship. In other cases, courts have limited the right of the lender to foreclose if the default under the mortgage instrument is not monetary, such as the borrower's failure to adequately maintain the property or

the borrower's execution of a second mortgage or deed of trust affecting the property. Finally, some courts have been faced with the issue of whether or not federal or state constitutional provisions reflecting due process concerns for adequate notice require that borrowers under deeds of trust or mortgages receive notices in addition to the statutorily-prescribed minimums. For the most part, these cases have upheld the notice provisions as being reasonable or have found that the sale by a trustee under a deed of trust, or under a mortgage having a power of sale, does not involve sufficient state action to afford constitutional protection to the borrower.

Under certain loan modification programs, to the extent a loan servicer is considering qualifying the related borrower for a loan modification after foreclosure proceedings have already been initiated, the foreclosure proceedings must be halted until the servicer has determined whether the borrower has qualified for the loan modification. This is a requirement under the February 2012 settlement agreement between 49 states' attorneys general and five leading bank mortgage servicers and may apply to servicers of some the Reference Obligations, and, if the servicing standards outlined in the settlement agreement develop into national servicing standards in the future, this requirement may apply to the servicers of all the Reference Obligations. In all cases the servicers of the Reference Obligations will be required to service the Reference Obligations in accordance with applicable law, including the CFPB servicing standards which became effective in January 2014.

In response to an unusually large number of foreclosures in recent years, a growing number of states have enacted laws that subject the holder to certain notice and/or waiting periods prior to commencing a foreclosure. In some instances, these laws require the servicer of the mortgage to consider modification of the mortgage or an alternative option prior to proceeding with foreclosure. The effect of these laws has been to delay foreclosure in particular jurisdictions.

The Mortgages or the "Assignments of Mortgage" for some of the Reference Obligations may have been recorded in the name of Mortgage Electronic Registration Systems, Inc. ("**MERS**"), solely as nominee for the originator and its successors and assigns. Subsequent assignments of those Mortgages are registered electronically through the MERS system. The recording of mortgages in the name of MERS has been challenged in a number of states. Although many decisions have accepted MERS as lender, some courts have held that MERS is not a proper party to conduct a foreclosure and have required that the mortgage be reassigned to the entity that is the economic owner of the mortgage loan before a foreclosure can be conducted. In states where such a rule is in effect, there may be delays and additional costs in commencing, prosecuting and completing foreclosure proceedings and conducting foreclosure sales of mortgaged properties. In addition, borrowers are raising new challenges to the recording of mortgages in the name of MERS, including challenges questioning the ownership and enforceability of mortgage loans registered in MERS. An adverse decision in any jurisdiction may delay the foreclosure process.

With respect to any mortgage loans registered on the MERS system, the servicer must comply with all of the requirements of MERS regarding instituting foreclosure proceedings. In addition, mortgage loans registered in the MERS system will be required to be removed from the MERS system by the servicer upon 90 days of delinquency.

Foreclosing Co-operative Loans. The co-operative shares owned by the tenant-stockholder and pledged to the lender or lender's agent or trustee are, in almost all cases, subject to restrictions on transfer as set forth in the co-operative's certificate of incorporation and bylaws, as well as the tenant-stockholder's proprietary lease or occupancy agreement, and may be cancelled by the co-operative for failure by the tenant-stockholder to pay rent or other obligations or charges owed by such tenant-stockholder, including mechanics' liens against the co-operative's property incurred by such tenant-stockholder. A proprietary lease or occupancy agreement generally permits the co-operative to terminate such lease or agreement in the event a tenant-stockholder fails to make payments or defaults in the performance of covenants required thereunder. Furthermore, a default by the tenant-stockholder under the proprietary lease or occupancy agreement will usually constitute a default under the security agreement between the lender and the tenant-stockholder.

Typically, the lender and the co-operative enter into a recognition agreement which establishes the rights and obligations of both parties in the event of a default by the tenant-stockholder with respect to its obligations under the proprietary lease or occupancy agreement and/or the security agreement. The recognition agreement generally provides that, in the event that the tenant-stockholder has defaulted under the proprietary lease or occupancy agreement, the co-operative will take no action to terminate such lease or agreement until the lender has been provided with an opportunity to cure the defaults. The recognition agreement typically provides that if the proprietary lease or occupancy agreement is terminated, the co-operative will recognize the lender's lien in respect of

the proprietary lease or occupancy agreement, and will deliver to the lender the proceeds from the sale of the co-operative apartment unit to a third party up to the amount to which the lender is entitled by reason of its lien, subject to the co-operative's right to sums due under such proprietary lease or occupancy agreement. The total amount owed to the co-operative by the tenant-stockholder, which the lender generally cannot restrict and does not monitor, may reduce the proceeds available to the lender to an amount below the outstanding principal balance of the co-operative loan and accrued and unpaid interest thereon.

Recognition agreements typically also provide that in the event of a foreclosure on a co-operative loan, the lender must obtain the approval or consent of the co-operative as required by the proprietary lease or occupancy agreement before transferring the co-operative shares or assigning the proprietary lease to a third party. Generally, the lender is not limited in any rights it may have to dispossess the tenant-stockholders. In some states, foreclosure on the co-operative shares is accomplished by a sale in accordance with the provisions of Article 9 of the Uniform Commercial Code ("**Article 9**") and the security instrument relating to those shares. Article 9 requires that a sale be conducted in a "commercially reasonable" manner. Whether a foreclosure sale has been conducted in a "commercially reasonable" manner will depend on the facts in each case and state law. In determining commercial reasonableness, a court typically will look to the notice (which generally includes a publication requirement) given the borrower and third parties and the method, manner, time, place and terms of the foreclosure.

As described above, any provision in the recognition agreement regarding the right of the co-operative to receive sums due under the proprietary lease or occupancy agreement prior to the lender's reimbursement supplements any requirement under Article 9 that the proceeds of the sale will be applied first to pay the costs and expenses of the sale and then to satisfy the indebtedness secured by the lender's security interest. If there are proceeds remaining after application to costs and expenses of the sale, amounts due under the proprietary lease or occupancy agreement, and satisfaction of the indebtedness, the lender must account to the tenant-stockholder for such surplus. Conversely, if a portion of the indebtedness remains unpaid, the tenant-stockholder is generally responsible for the deficiency.

In the case of foreclosure on a co-operative that was converted from a rental building to a co-operative under a non-eviction plan, some states require that a purchaser at a foreclosure sale take the property subject to rent control and rent stabilization laws which apply to certain tenants who elected to remain in the building but who did not purchase shares in the co-operative when the building was so converted.

Rights of Redemption

The purpose of a foreclosure action in respect of a mortgaged property is to enable the lender to realize upon its security and to bar the borrower, and all persons who have interests in the property that are subordinate to that of the foreclosing lender, from exercise of their "equity of redemption." The doctrine of equity of redemption provides that, until the property encumbered by a mortgage has been sold in accordance with a properly conducted foreclosure and foreclosure sale, those having interests that are subordinate to that of the foreclosing lender have an equity of redemption and may redeem the property by paying the entire debt with interest. Those having an equity of redemption must generally be made parties and joined in the foreclosure proceeding and provided statutorily prescribed notice, in the case of a non-judicial foreclosure, in order for their equity of redemption to be terminated.

The equity of redemption is a common-law (non-statutory) right which should be distinguished from post-sale statutory rights of redemption. In some states, after sale pursuant to a deed of trust or foreclosure of a mortgage, the borrower and foreclosed junior lienors are given a statutory period in which to redeem the property. In some states, statutory redemption may occur only upon payment of the foreclosure sale price. In other states, redemption may be permitted if the former borrower pays only a portion of the sums due. The effect of a statutory right of redemption is to diminish the ability of the lender to sell the foreclosed property because the exercise of a right of redemption would defeat the title of any purchase through a foreclosure. Consequently, the practical effect of the redemption right is to force the lender to maintain the property and pay the expenses of ownership until the redemption period has expired. In some states, a post-sale statutory right of redemption may exist following a judicial foreclosure, but not following a trustee's sale under a deed of trust.

Anti-Deficiency Legislation and Other Limitations on Lenders

Some states have imposed statutory prohibitions which limit the remedies of a beneficiary under a deed of trust or a lender under a mortgage. In some states (including California), statutes limit the right of the beneficiary or lender to obtain a deficiency judgment against the borrower following non-judicial foreclosure by power of sale. A deficiency judgment is a personal judgment against the former borrower equal in most cases to the difference between the net amount realized upon the public sale of the real property and the amount due to the lender. In the case of a mortgage loan secured by a property owned by a trust where the mortgage note is executed on behalf of the trust, a deficiency judgment against the trust following foreclosure or sale under a deed of trust, even if obtainable under applicable law, may be of little value to the lender or beneficiary if there are no trust assets against which the deficiency judgment may be executed. Some state statutes require the beneficiary or lender to exhaust the security afforded under a deed of trust or mortgage by foreclosure in an attempt to satisfy the full debt before bringing a personal action against the borrower. In other states, the lender has the option of bringing a personal action against the borrower on the debt without first exhausting the security; however in some of these states, the lender, following judgment on the personal action, may be deemed to have elected a remedy and may be precluded from exercising other remedies, including with respect to the security. Consequently, the practical effect of the election requirement, in those states permitting the election, is that lenders will usually proceed against the security first rather than bringing a personal action against the borrower. This also allows the lender to avoid the delays and costs associated with going to court. Finally, in some states, statutory provisions limit any deficiency judgment against the former borrower following a foreclosure to the excess of the outstanding debt over the fair value of the property at the time of the public sale. The purpose of these statutes is generally to prevent a beneficiary or lender from obtaining a large deficiency judgment against the former borrower as a result of low or no bids at the foreclosure sale.

In addition to laws limiting or prohibiting deficiency judgments, numerous other federal and state statutory provisions, including the federal bankruptcy laws and state laws affording relief to debtors, may interfere with or affect the ability of the secured mortgage lender to realize upon collateral or enforce a deficiency judgment. For example, under the U.S. Bankruptcy Code, virtually all actions (including foreclosure actions and deficiency judgment proceedings) to collect a debt are automatically stayed upon the filing of the bankruptcy petition and, often, no interest or principal payments are made during the course of the bankruptcy case. The delay and the consequences of the automatic stay can be significant. Also, under the U.S. Bankruptcy Code, the filing of a petition in a bankruptcy by or on behalf of a junior lienor may stay the senior lender from taking action to foreclose out the junior lien. Moreover, with respect to federal bankruptcy law, a court with federal bankruptcy jurisdiction may permit a debtor through his or her Chapter 11 or Chapter 13 rehabilitative plan to cure a monetary default in respect of a mortgage loan on a debtor's residence by paying arrearage within a reasonable time period and reinstating the original mortgage loan payment schedule even though the lender accelerated the mortgage loan and final judgment of foreclosure had been entered in state court (provided no sale of the residence had yet occurred) prior to the filing of the debtor's petition. Some courts with federal bankruptcy jurisdiction have approved plans, based on the particular facts of the reorganization case, that effected the curing of a mortgage loan default by paying arrearage over a number of years.

Courts with federal bankruptcy jurisdiction have also held that the terms of a mortgage loan secured by property of the debtor may be modified. These courts have allowed modifications that include reducing the amount of each monthly payment, changing the rate of interest, altering the repayment schedule, forgiving all or a portion of the debt and reducing the lender's security interest to the value of the residence, thus leaving the lender a general unsecured creditor for the difference between the value of the residence and the outstanding balance of the loan. Generally, however, the terms of a mortgage loan secured only by a mortgage on real property that is the debtor's principal residence may not be modified pursuant to a plan confirmed pursuant to Chapter 13 except with respect to mortgage payment arrearages, which may be cured within a reasonable time period.

Tax liens arising under the Code may have priority over the lien of a mortgage or deed of trust. In addition, substantive requirements are imposed upon mortgage lenders in connection with the origination and the servicing of mortgage loans by numerous federal and some state consumer protection laws and their implementing regulations. These laws and regulations include the federal Truth-in-Lending Act and Regulation Z, the Real Estate Settlement Procedures Act and Regulation X, the Equal Credit Opportunity Act and Regulation B, the Fair Credit Billing Act and Regulation Z, the Fair Credit Reporting Act and Regulation V and related statutes. These federal laws impose specific statutory liabilities upon lenders who originate mortgage loans and who fail to comply with the provisions

of the law. Further, violations of the laws could result in a borrower's defense to foreclosure or an unwinding or rescission of the loan. In some cases, this liability may affect assignees of the mortgage loans.

Enforceability of Due-On-Sale Clauses

The Reference Obligations will typically include "due-on-sale clauses" which allow the holder of such Reference Obligation to demand payment in full of the remaining principal balance upon sale or certain transfers of the property securing such Reference Obligation. The enforceability of these clauses has been the subject of legislation or litigation in many states, and in some cases the enforceability of these clauses was limited or denied. However, The Garn-St Germain Depository Institutions Act of 1982 (the "**Garn-St Germain Act**") preempts state constitutional, statutory and case law that prohibits the enforcement of due-on-sale clauses and permits lenders to enforce these clauses in accordance with their terms, subject to limited exceptions. The Garn- St Germain Act does "encourage" lenders to permit assumption of loans at the original rate of interest or at some other rate less than the average of the original rate and the market rate.

The Garn-St Germain Act also sets forth nine specific instances in which a mortgage lender covered by the Garn-St Germain Act may not exercise a due-on-sale clause, notwithstanding the fact that a transfer of the property may have occurred. These include, amongst others, intra-family transfers, some transfers by operation of law, leases of fewer than three years and the creation of a junior encumbrance. Regulations promulgated under the Garn-St Germain Act also prohibit the imposition of a prepayment penalty upon the acceleration of a loan pursuant to a due-on-sale clause.

The inability to enforce a due-on-sale clause may result in a Reference Obligation bearing an interest rate below the current market rate being assumed by the buyer rather than being paid off, which may have an impact upon the average life of the Reference Obligations and the number of Reference Obligations which may be outstanding until maturity.

Subordinate Financing

When a borrower encumbers mortgaged property with one or more junior liens, the senior lender is subjected to additional risk. First, the borrower may have difficulty servicing and repaying multiple loans. In addition, if the junior loan permits recourse to the borrower (as junior loans often do) and the senior loan does not, a borrower may be more likely to repay sums due on the junior loan than those on the senior loan. Second, acts of the senior lender that prejudice the junior lender or impair the junior lender's security may create a superior equity in favor of the junior lender. For example, if the borrower and the senior lender agree to an increase in the principal amount of or the interest rate payable on the senior loan, the senior lender may lose its priority to the extent an existing junior lender is harmed or the borrower is additionally burdened. Third, if the borrower defaults on the senior loan and/or any junior loan or loans, the existence of junior loans and actions taken by junior lenders can impair the security available to the senior lender and can interfere with or delay the taking of action by the senior lender. Moreover, the bankruptcy of a junior lender may operate to stay foreclosure or similar proceedings by the senior lender. In addition, the consent of the junior lender is required in connection with loan modifications, short sales and deeds-in-lieu of foreclosure, which may delay or prevent the loss mitigation actions taken by the senior lender.

Servicemembers Civil Relief Act

Under the terms of The Servicemembers Civil Relief Act, as amended (the "**Relief Act**"), various rights and protections apply to a borrower who is a servicemember that enters military service. For purposes of the application of the Relief Act to a servicemember, military service includes (i) active duty by a member of the Army, Navy, Air Force, Marine Corps or Coast Guard (including a member of the reserves called to active duty and a member of the National Guard activated under a federal call to active duty), (ii) service by a member of the National Guard under a call to active service authorized by the President of the United States or the Secretary of Defense for a period of more than 30 consecutive days for purposes of responding to a national emergency declared by the President and supported by federal funds, and (iii) active service by a commissioned officer of either the Public Health Service or the National Oceanic and Atmospheric Administration. In addition, certain provisions of the Relief Act also apply to (i) a member of a reserve component upon receipt of an order to report for military service, and (ii) a person ordered to report for induction under the Military Selective Service Act upon receipt of an order for induction. Upon application to a court, a dependent of a servicemember is also entitled to certain limited protections under the

Relief Act if the dependent's ability to comply with an obligation is materially affected by reason of the servicemember's military service. Because the Relief Act extends rights and protections to borrowers who enter military service after origination of the mortgage loan, no information can be provided as to the number of Reference Obligations that may be affected by the Relief Act.

The Relief Act imposes limitations that would impair the ability of the servicer to foreclose on an affected mortgage loan originated before the borrower's period of military service. In an action filed during, or within nine months after, a borrower's period of military service to enforce a mortgage loan, a court may stay the proceedings or adjust the mortgage loan to preserve the interests of all parties. Moreover, a sale, foreclosure or seizure of property for breach of a mortgage loan is not valid if made during, or within nine months after, the period of the borrower's military service, except upon a court order granted before such sale, foreclosure or seizure or pursuant to a written waiver by the borrower. The Relief Act also provides that a period of military service may not be included in computing any period provided by law for the redemption of real property sold or forfeited to enforce an obligation. Thus, in the event that the Relief Act or similar legislation or regulations applies to any mortgage loan which goes into default, there may be delays in payment and losses on the related securities in connection therewith. Any other interest shortfalls, deferrals or forgiveness of payments on the Reference Obligations resulting from similar legislation or regulations may result in delays in payments or losses to Noteholders.

Certain states have enacted or may enact their own versions of the Relief Act, which may provide for greater rights and protections than those set forth in the Relief Act, including rights and protections for National Guard members called to active state service by a state governor.

CERTAIN U.S. FEDERAL INCOME TAX CONSEQUENCES

The Notes and payments thereon generally are subject to taxation. Therefore, you should consider the tax consequences of owning a Note before acquiring one.

The following discussion is general and may not apply to your particular circumstances for any of the following (or other) reasons:

- This summary is based on federal tax laws in effect as of the date of this Offering Memorandum. Changes to any of these laws after this date may affect the tax consequences described below and may apply, retroactively, as of a date preceding the date of this Offering Memorandum.
- This summary discusses only Notes acquired by beneficial owners and held as capital assets (within the meaning of federal tax law). It does not discuss all of the tax consequences that may be relevant to beneficial owners subject to special rules, such as banks, thrift institutions, partnerships, insurance companies, real estate investment trusts, regulated investment companies, tax-exempt organizations, brokers and dealers in securities or currencies, certain securities traders and certain other financial institutions. This discussion also does not discuss tax consequences that may be relevant to a beneficial owner in light of the beneficial owner's particular circumstances, such as a beneficial owner holding a Note as a position in a straddle, hedging, conversion or other integrated investment, a beneficial owner whose functional currency is not the U.S. dollar, a beneficial owner for whom the income with respect to a Note would constitute "business interest income" or a beneficial owner who is a recalcitrant account holder (within the meaning of Section 1471 of the Internal Revenue Code of 1986, as amended (the "Code")).
- The Notes also are subject to income and other taxes imposed by states and possessions of the United States and by local taxing authorities. You should consult your own tax advisors as to the consequences of such laws.

For these reasons, you are advised to consult your own tax advisors regarding the tax consequences of purchasing, owning and disposing of Notes, including the advisability of making any of the elections described below.

U.S. Persons

If you are a U.S. Person and own a Note, income from the Note is subject to U.S. federal income taxation.

For purposes of the foregoing and the discussion that follows, a "**U.S. Person**" means:

- a citizen or individual resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or any state thereof or the District of Columbia;
- an estate the income of which is includible in its gross income for U.S. federal income tax purposes without regard to its source;
- a trust if a court within the United States is able to exercise primary supervision over its administration and at least one U.S. Person has the authority to control all substantial decisions of the trust; or
- certain trusts in existence on August 20, 1996, and treated as U.S. persons (within the meaning of Section 7701(a)(30) of the Code) prior to such date, that elect to continue to be treated as U.S. persons, as provided in Treasury regulations.

If a partnership holds Notes, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding Notes should consult its tax advisor regarding the U.S. federal income tax treatment of the partnership's investment in the Notes.

The first part of the following discussion addresses beneficial owners who are U.S. Persons, the second part addresses beneficial owners who are individuals, corporations, estates or trusts who are not U.S. Persons ("**non-U.S. Persons**"), and the last part addresses rules concerning information reporting to the IRS and backup withholding.

For purposes of the discussion under "*Certain U.S. Federal Income Tax Consequences*" herein, a Holder refers to the beneficial owner of a Note. The beneficial owner is the party that beneficially owns a Note for U.S. federal income tax purposes.

REMIC Elections and Special Tax Attributes

The Issuer will make one or more proper and timely elections to treat certain segregated portions of its assets (exclusive of any assets, rights, obligations and arrangements excluded from the REMIC election as provided under the Indenture) as one or more REMICs for U.S. federal income tax purposes. Qualification as a REMIC requires ongoing compliance with certain conditions. Hunton Andrews Kurth LLP will deliver its opinion that, based on customary assumptions including compliance with the related trust documents and that the Designated Q-REMIC Interests are treated as regular interests in a REMIC, which will be based upon an opinion of special tax counsel to Fannie Mae for the Q-REMICs, each REMIC elected under the Indenture will be treated as a REMIC for federal income tax purposes. Opinions of counsel are not a guarantee of any particular U.S. federal income tax result and are not binding on the IRS, the courts or any other third party.

The uncertificated regular interests corresponding to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C, and Class 1B-1 Notes and the X-IO Interest will be designated as the "regular interests" in a REMIC, and the Residual Certificates will be designated as the "residual interests" in a REMIC. Thus, the REMIC regular interests corresponding to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes generally will be treated as "regular or residual interests in a REMIC" for domestic building and loan associations, as "real estate assets" for real estate investment trusts, and as "qualified mortgages" for other REMICs.

The REMIC regular interests corresponding to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes will be entitled to receive interest and principal payments at the times and in the amounts equal to those made to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes, except that the interest rate on the REMIC regular interest will be subject to a cap equal to the REMIC WAC Rate, and will be determined without regard to payments received under any notional principal contract. The "**REMIC WAC Rate**" will be a rate based on the interest payable on the Designated Q-REMIC Interests. A beneficial owner of Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes will be treated for U.S. federal income tax

purposes as the beneficial owner of a pro rata interest in the corresponding REMIC regular interest coupled with rights under a notional principal contract. Any excess of the amount of interest actually payable to the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes over the amount of interest payable on the corresponding REMIC regular interest will be treated as having been received by beneficial owners of such class pursuant to a notional principal contract.

Although a Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Note will represent beneficial ownership of a REMIC regular interest, which is afforded certain tax attributes as described above, the interest in the notional principal contract will not constitute:

- a "real estate asset" within the meaning of section 856(c)(5)(B) of the Code,
- a "qualified mortgage" within the meaning of section 860G(a)(3) of the Code or a "permitted investment" within the meaning of section 860G(a)(5) of the Code, or
- an asset described in section 7701(a)(19)(C)(xi) of the Code.

Income received with respect to the notional principal contract component will not constitute income described in Section 856(c)(3)(B) with respect to a real estate investment trust. As a result, the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Notes may not be an appropriate investment for a REMIC, and investors that are real estate investment trusts should consider the treatment of the notional principal contract component in evaluating an investment in the Notes.

For purposes of the remainder of this discussion, references to "**Regular Notes**" or "**Regular Classes**" should be read to include the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes only to the extent of the corresponding REMIC regular interest represented thereby.

Taxation of Beneficial Owners of Regular Notes

For federal income tax purposes, the Regular Notes will be treated as beneficial ownership of debt instruments issued by a REMIC and not as ownership interests in a REMIC or its assets. Interest, OID and market discount with respect to a Regular Note will represent ordinary income to the beneficial owner of the Note (a "**Regular Owner**"). A Regular Owner must report interest on a Regular Note using an accrual method of accounting, regardless of whether it otherwise reports income using a cash method of accounting. Rules regarding OID and market discount are discussed below.

In addition, a taxpayer that uses an accrual method of accounting for tax purposes and prepares an "applicable financial statement" (as defined in Section 451 of the Code) may be required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements. Noteholders may rely on proposed Treasury regulations, released September 9, 2019, that exclude OID on the Notes from this rule. Prospective investors are urged to consult their tax advisors regarding the potential applicability of this provision to their particular situations.

Treatment of Original Issue Discount

Certain Regular Notes may be issued with OID within the meaning of section 1273(a) of the Code. A Regular Owner must include in gross income the sum of the "daily portions" of OID on its Regular Note for each day during its taxable year on which it held the Regular Note, generally in advance of receipt of the cash attributable to that income. The Indenture Trustee will supply to noteholders, brokers and middlemen information with respect to the OID accruing on the Regular Notes. The Indenture Trustee will supply this information at the time and in the manner required by the IRS.

Definition of Original Issue Discount

In general, a Regular Note will be considered to be issued with OID equal to the excess, if any, of its "stated redemption price at maturity" over its "issue price." The issue price of a Regular Note is the initial offering price to the public (excluding bond houses and brokers) at which a substantial amount of the Regular Notes was sold. The issue price also includes any accrued interest attributable to the period before the Closing Date. As discussed below under "*Taxation of Beneficial Owners of Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes*," a beneficial owner must allocate its purchase price for the Notes between the corresponding REMIC regular interest component and the notional principal contract component based on their relative fair market values. To the extent that this allocation reduces the issue price of the REMIC regular interest component, it would make it more likely that a Regular Note would be issued with OID. The stated redemption price at maturity of a Regular Note generally is its stated principal amount, plus an amount equal to the excess (if any) of the interest payable on the first Payment Date over the interest that accrues for the period from the Closing Date to the first Payment Date. Notwithstanding the general definition, OID on a Regular Note will be treated as zero if the discount is less than 0.25% of the stated redemption price at maturity of the Regular Note multiplied by its weighted average life. The weighted average life of a Regular Note is apparently computed for this purpose as the sum, for all payments included in the stated redemption price at maturity of the Regular Note, of the amounts determined by multiplying (i) the number of complete years (rounding down for partial years) from the Closing Date until the date on which each such payment is expected to be made under the assumption that the REMIC regular interests backing the Notes prepay at a rate equal to 10% CPR (the "**Prepayment Assumption**") by (ii) a fraction, the numerator of which is the amount of such payment and the denominator of which is the Regular Note's stated redemption price at maturity. If OID is treated as zero under this rule, the actual amount of OID must be allocated to the principal payments on the Regular Note and, when each principal payment is received, gain equal to the discount allocated to that payment will be recognized.

Daily Portions of Original Issue Discount

For Regular Notes considered to be issued with OID, the daily portions of OID will be determined as follows. A calculation will first be made of the portion of OID that accrued during each "accrual period." OID accruing during any accrual period will then be allocated ratably to each day during the period to determine the daily portion of OID. Treasury regulations relating to the tax treatment of debt instruments with OID (the "**OID Regulations**") provide that a holder of a debt instrument may use an accrual period of any length, up to one year, as long as each payment of principal or interest occurs on either the final day or the first day of an accrual period. The Issuer intends to report OID based on accrual periods of one month. Each of these accrual periods will begin on a Payment Date and end on the day before the next Payment Date. The portion of OID treated as accruing for any accrual period will equal the excess, if any, of (i) the sum of (A) the present values of all the payments remaining to be made on the Regular Note, if any, as of the end of the accrual period, and (B) the payment made on the Regular Note during the accrual period of amounts included in the stated redemption price at maturity, over (ii) the adjusted issue price of the Regular Note at the beginning of the accrual period.

The present value of the remaining payments will be calculated based on the following:

- the yield to maturity of the Regular Note, calculated as of the Closing Date, giving effect to the Prepayment Assumption;
- events (including actual prepayments) that have occurred prior to the end of the accrual period;
- the Prepayment Assumption; and
- an assumption that the value of the index upon which the variable rate is based remains the same as its value on the Closing Date over the entire life of the Regular Note.

The adjusted issue price of a Regular Note at any time will equal the issue price of the Regular Note, increased by the aggregate amount of previously accrued OID with respect to the Regular Note, and reduced by the amount of any payments made on the Regular Note as of that time of amounts included in the stated redemption

price at maturity. The Code requires that the Prepayment Assumption be determined in the manner prescribed in Treasury regulations. To date, no such regulations have been promulgated. The legislative history of this Code provision indicates that the regulations will provide that the assumed prepayment rate must be the rate used by the parties in pricing the particular transaction. The Prepayment Assumption will be used for purposes of computing OID, market discount or premium, if any, for U.S. federal income tax information reporting purposes. The Issuer makes no representation, however, that Notes or Reference Obligations will prepay at the rate reflected in the Prepayment Assumption or at any other rate. You must make your own decision as to the appropriate prepayment assumption to be used in deciding whether or not to purchase any of the Notes.

Subsequent Holders' Treatment of Original Issue Discount

If a Regular Note is issued with OID and a subsequent holder purchases the Regular Note at a cost of less than its remaining stated redemption price at maturity, that holder also will be required to include in income the daily portion of OID with respect to the Regular Note for each day it holds the Regular Note. If the cost of the Regular Note to the subsequent holder exceeds the adjusted issue price of the Regular Note, however, the holder reduces the daily accruals by an amount equal to the product of (i) the daily portion and (ii) a constant fraction. The numerator of the constant fraction is the excess of the purchase price over the adjusted issue price of the Regular Note, and the denominator is the sum of the daily portions of OID on the Regular Note for all days on or after the day of purchase.

Special Rules for Variable Rate Debt Instruments

The OID Regulations define and provide special rules applicable to variable rate debt instruments ("**VRDIs**"). To be a VRDI, a Regular Note generally must satisfy three requirements. First, the issue price (including accrued interest) must not exceed the total noncontingent principal payments by more than (i) 1.5% of the product of the total noncontingent principal payments and the weighted average life, or (ii) 15% of the total noncontingent principal payments, whichever is smaller. Second, the Regular Note must bear interest at a "qualified floating rate" or an "objective rate," or certain combinations of such rates and possibly a fixed rate. Third, under the terms of the Regular Note, the qualified floating rate or objective rate must be based on a current value of the applicable interest index. An interest index (such as LIBOR) and an interest index plus or minus a fixed rate generally are qualified floating rates. The Issuer anticipates that the Regular Notes will be VRDIs. Under the OID Regulations, a debt instrument that provides for a variable rate of interest but does not meet all three requirements is a contingent payment debt instrument. The regulations governing contingent payment debt instruments, however, do not apply to Regular Notes. Therefore, the Indenture Trustee will compute accruals of interest and OID on the Regular Notes by applying the principles of the OID Regulations applicable to VRDIs.

Regular Notes Purchased at a Premium

If a Regular Owner purchases a Regular Note for an amount (net of accrued interest) greater than its remaining stated redemption price at maturity, the Regular Owner generally will have premium with respect to the Note (a "**Premium Note**") in the amount of the excess. Such a purchaser need not include in income any remaining OID and may elect, under section 171(c)(2) of the Code, to treat the premium as "amortizable bond premium." If a Regular Owner makes this election, the amount of any interest payment that must be included in the Regular Owner's income for each period ending on a Payment Date will be reduced by the portion of the premium allocable to the period based on the Premium Note's yield to maturity. In addition, the legislative history of the Tax Reform Act of 1986 states that premium should be amortized under principles analogous to those governing the accrual of market discount (as discussed under "*Regular Notes Purchased with Market Discount*"). The election will also apply to all bonds (as well as all REMIC regular interests) the interest on which is not excludible from gross income ("fully taxable bonds") held by the Regular Owner at the beginning of the first taxable year to which the election applies and to all fully taxable bonds thereafter acquired by it. A Regular Owner may revoke the election only with the consent of the IRS.

If the election is not made, (i) a Regular Owner must include the full amount of each interest payment in income as it accrues, and (ii) the premium must be allocated to the principal payments on the Premium Note and, when each principal payment is received, a loss equal to the premium allocated to the payment will be recognized.

Any tax benefit from the premium not previously recognized will be taken into account in computing gain or loss upon the sale or disposition of the Premium Note.

Regular Notes Purchased with Market Discount

A Regular Owner that purchases a Regular Note at a price that is less than the remaining stated redemption price at maturity of the Regular Note (or in the case of a Regular Note issued with OID, less than the adjusted issue price of the Regular Note) has market discount with respect to the Regular Note in the amount of the difference. In general, three consequences arise if a Regular Owner acquires a Regular Note with market discount. First, the Regular Owner must treat any principal payment with respect to a Regular Note acquired with market discount as ordinary income to the extent of the market discount that accrued while the Regular Owner held the Regular Note. Second, the Regular Owner must treat gain on the disposition or retirement of such a Regular Note as ordinary income under the circumstances discussed under "*Sales and Other Dispositions of Regular Notes.*" Third, a Regular Owner that incurs or continues indebtedness to acquire a Regular Note at market discount may be required to defer the deduction of all or a portion of the interest on the indebtedness until the corresponding amount of market discount is included in income. Alternatively, a Regular Owner may elect to include market discount in income on a current basis as it accrues, in which case the three consequences discussed above will not apply. If a Regular Owner makes this election, the Regular Owner must also apply the election to all debt instruments the Regular Owner acquires on or after the beginning of the first taxable year to which the election applies. A Regular Owner may revoke the election only with the consent of the IRS.

The legislative history to the Tax Reform Act of 1986 states that market discount on a REMIC regular interest may be treated as accruing in proportion to remaining accruals of OID, if any, or, if none, in proportion to remaining distributions of interest on a REMIC regular interest. A beneficial owner may instead elect to determine the accrual of market discount under a constant yield method. The Issuer will make available to Regular Owners information necessary to compute the accrual of market discount, in the manner and form as required by the IRS.

Notwithstanding the above rules, market discount on a Regular Note will be considered to be zero if the discount is less than 0.25% of the remaining stated redemption price at maturity of the Regular Note multiplied by its weighted average remaining life. Weighted average remaining life presumably would be calculated in a manner similar to weighted average life, taking into account payments (including prepayments) prior to the date of acquisition of the Regular Note by the subsequent purchaser. If market discount on a Regular Note is treated as zero under this rule, the actual amount of market discount must be allocated to the remaining principal distributions on the Regular Note and, when each principal distribution is received, gain equal to the discount allocated to that distribution will be recognized.

Special Election

The OID Regulations permit a Regular Owner to elect to include in gross income all "interest" that accrues on the Regular Note by using a constant yield method. For purposes of the election, the term "interest" includes stated interest, acquisition discount, OID, de minimis OID, market discount, de minimis market discount and unstated interest, as adjusted by any amortizable bond premium or acquisition premium. You should consult your own tax advisor regarding the time and manner of making and the scope of the election and the implementation of the constant yield method.

Treatment of Losses

Holders of Regular Notes will be required to report income with respect thereto on the accrual method without giving effect to delays and reductions in payments attributable to defaults or delinquencies on any of the assets of the REMICs, except possibly, in the case of income that under the Code constitutes "qualified stated interest," to the extent that it can be established that such amounts are uncollectible. In addition, potential investors are cautioned that while they may generally cease to accrue interest income if it reasonably appears that the interest will be uncollectible, the IRS may take the position that OID must continue to be accrued in spite of its uncollectibility until the Note is disposed of in a taxable transaction or becomes worthless in accordance with the rules under Section 166 of the Code. As a result, the amount of income required to be reported by a holder in any period could exceed the amount of cash paid to such holder in that period.

Although not entirely clear, it appears that (i) holders of Regular Notes that are corporations generally should be allowed to deduct as an ordinary loss any loss sustained during the taxable year on account of any such Regular Notes becoming wholly or partially worthless and (ii) holders of Regular Notes that are not corporations generally should be allowed to deduct as a short-term capital loss any loss sustained during the taxable year on account of any such Regular Notes becoming wholly worthless. Although the matter is not entirely clear, non-corporate holders of Regular Notes may be allowed a bad debt deduction at such time that the principal balance of any such Regular Notes is reduced for Tranche Write-Down Amounts. The IRS, however, could take the position that non-corporate holders will be allowed a bad debt deduction to reflect such Tranche Write-Down Amounts only after all Designated Q-REMIC Interests have been liquidated or the Regular Notes have been otherwise retired. The IRS could also assert that losses on a class of Regular Notes are deductible based on some other method that may defer such deductions for all holders, such as reducing future cash flow for purposes of computing OID. This may have the effect of creating "negative" OID which, with the possible exception of the method discussed in the following sentence, would be deductible only against future positive OID or otherwise upon termination of the applicable class. Although not free from doubt, a holder of a Regular Note with negative OID may be entitled to deduct a loss to the extent that its remaining basis would exceed the maximum amount of future payments to which such holder was entitled, assuming no further prepayments (or, perhaps, assuming prepayments at the Prepayment Assumption). Potential investors and holders of the Regular Notes are urged to consult their tax advisors regarding the applicable timing, amount and character of any loss sustained with respect to Regular Notes, including any loss resulting from the failure to recover previously accrued interest or discount income. Special loss rules are applicable to banks and thrift institutions, including rules regarding reserves for bad debts. Such taxpayers are advised to consult their tax advisors regarding the treatment of losses on Regular Notes.

Sales and Other Dispositions of Regular Notes

Upon the sale, exchange, retirement or other disposition of a Regular Note, the beneficial owner generally will recognize gain or loss equal to the difference between the amount realized upon the disposition and the beneficial owner's adjusted basis in the Regular Note. The adjusted basis of a Regular Note generally will equal the cost of the Regular Note to the beneficial owner, increased by any OID or market discount included in the beneficial owner's gross income with respect to the Regular Note and reduced by distributions previously received by the beneficial owner of amounts included in the Regular Note's stated redemption price at maturity and by any premium that has reduced the beneficial owner's interest income with respect to the Regular Note.

The gain or loss, if any, will be capital gain or loss, provided the Regular Note is held as a "capital asset" (generally, property held for investment) within the meaning of section 1221 of the Code and none of the following apply. First, gain that might otherwise be capital gain will be treated as ordinary income to the extent that the gain does not exceed the excess, if any, of (i) the amount that would have been includible in the income of the Regular Owner had income accrued at a rate equal to 110% of the "applicable Federal rate" (generally, an average of current yields on Treasury securities) as of the date of purchase over (ii) the amount actually includible in the Regular Owner's income. Second, gain recognized by a Regular Owner who purchased a Regular Note at a market discount will be taxable as ordinary income in an amount not exceeding the portion of the market discount that accrued during the period the Regular Note was held by the Regular Owner, reduced by any market discount includible in income under the rules described under "*Regular Notes Purchased with Market Discount*." Third, any gain or loss resulting from a sale or exchange described in section 582(c) of the Code (which generally applies to banks) will be taxable as ordinary income or loss.

Medicare Tax

Certain U.S. non-corporate beneficial owners are subject to an increased rate of tax on some or all of their "net investment income," which generally includes interest, OID and market discount realized on a Regular Note, and any net gain recognized upon a disposition of a Regular Note. A beneficial owner of a Regular Note should consult its tax advisor regarding the applicability of this tax in respect of the Regular Note.

Taxation of Beneficial Owners of Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes

Beneficial owners of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes will be treated:

- as holding an undivided interest in a REMIC regular interest as described above, and
- as having entered into the notional principal contract as described below.

Consequently, each beneficial owner of a Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Note will be required to report its pro rata share of income accruing with respect to the corresponding REMIC regular interest as discussed under "*REMIC Elections and Special Tax Attributes*" above. In addition, each beneficial owner of a Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Note will be required to report its pro rata share of net income with respect to the notional principal contract.

In general, this treatment of the Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes should not materially affect the timing or amount of income for federal income tax purposes of a beneficial owner of a Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Note provided that any premium paid with respect to the related notional principal contract is amortized in the same manner as any offsetting discount with respect to the corresponding REMIC regular interest is amortized. In any event, you should consult your own tax advisor regarding the consequences to you in light of your particular circumstances of taxing separately the components comprising a Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Note (i.e., the corresponding REMIC regular interest and the related notional principal contract).

If the beneficial owner of a Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Note is deemed to have paid a premium to receive the notional principal contract component, a beneficial owner of such Note must allocate its cost to acquire the Note between the corresponding REMIC regular interest and the notional principal contract component based on their relative fair market values. When a beneficial owner of a Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C or Class 1B-1 Note sells or disposes of the Note, the beneficial owner must allocate the sale proceeds between the corresponding REMIC regular interest and the notional principal contract component based on their relative fair market values and must treat the sale or other disposition of the Note as a sale or other disposition of a pro rata portion of the corresponding REMIC regular interest and the notional principal contract component. For information reporting purposes, the Issuer intends to treat the notional principal contract component as having no more than a de minimis value.

Treatment of RCR Notes

The RCR Notes will be created, sold and administered pursuant to an arrangement that will be classified as a grantor trust under subpart E, part I of subchapter J of chapter 1 of subtitle A of the Code. The Exchangeable Notes that back the RCR Notes will be the assets of the grantor trust, and the RCR Notes will represent an ownership interest in the applicable Exchangeable Notes.

The Class 1M-2 Notes, Class 1E-D5 Notes and Class 1E-F5 Notes will each represent beneficial ownership of undivided interests in two or more Exchangeable Notes of the related combination (a "**Combination RCR Note**"). Each other RCR Note (a "**Strip RCR Note**") will represent the right to receive a disproportionate part of the principal or interest payments on one or more Exchangeable Notes or undivided interests in other Strip RCR Notes.

Strip RCR Notes

The tax consequences to a Holder of a Strip RCR Note (other than the Class 1M-2Y, Class 1M-2X, Class 1B-1Y and Class 1B-1X Notes) will be determined under Section 1286 of the Code, except as discussed below. The Class 1M-2Y, Class 1M-2X, Class 1B-1Y and Class 1B-1X Notes are described below under "*Special Tax Attributes*." The remainder of this section addresses the remaining Strip RCR Notes. Under Section 1286, a Holder of a Strip RCR Note will be treated as owning "stripped bonds" to the extent of its share of principal payments and "stripped coupons" to the extent of its share of interest payments on the related Exchangeable Notes. If a Strip RCR Note entitles the holder to payments of principal and interest on a related Exchangeable Note, the IRS could contend that the Strip RCR Note should be treated (i) as an interest in the related Exchangeable Note to the extent that the Strip RCR Note represents an equal pro rata portion of principal and interest on the related Exchangeable Note, and (ii) with respect to the remainder, as an installment obligation consisting of "stripped bonds" to the extent of its

share of principal payments or "stripped coupons" to the extent of its share of interest payments. For purposes of information reporting, however, Fannie Mae intends to treat each Strip RCR Note as a single debt instrument, regardless of whether it entitles the holder to payments of principal and interest. Holders of Strip RCR Notes should consult their own tax advisors as to the proper treatment of a Strip RCR Note in this regard.

Under Section 1286, the Holder of a Strip RCR Note must treat the Strip RCR Note as a debt instrument originally issued on the date the owner acquires it and as having OID equal to the excess, if any, of its "stated redemption price at maturity" over the price paid by the owner to acquire it. The stated redemption price at maturity for a Strip RCR Note is determined in the same manner as described with respect to the related Exchangeable Notes. See "*— Taxation of Beneficial Owners of Regular Notes—Definition of Original Issue Discount.*"

If a Strip RCR Note has OID, the Holder must include the OID in its ordinary income for federal income tax purposes as the OID accrues, which may be prior to the receipt of the cash attributable to that income. Although the matter is not entirely clear, a Holder should accrue OID using a method similar to that described with respect to the accrual of OID on the Exchangeable Notes under "*— Taxation of Beneficial Owners of Regular Notes—Daily Portions of Original Issue Discount.*" A Holder, however, determines its yield to maturity based on its purchase price. For a particular Holder, it is not clear whether the prepayment assumption used for calculating OID would be one determined at the time the Strip RCR Note is acquired or would be the original Prepayment Assumption for the related Exchangeable Notes. For purposes of information reporting, Fannie Mae will use the original yield to maturity of the Strip RCR Note, calculated based on the original Prepayment Assumption. For certain U.S. Persons using the accrual method of accounting, however, such OID may be includible at the time it would be included for financial accounting purposes if earlier than when the U.S. Person would otherwise take the OID into income. Holders of Strip RCR Notes should consult their own tax advisors regarding the proper method for accruing OID on a Strip RCR Note.

The rules of Section 1286 of the Code also apply if (i) a Holder of Exchangeable Notes exchanges them for Strip RCR Notes, (ii) the Holder sells some, but not all, of the Strip RCR Notes, and (iii) the combination of retained Strip RCR Notes cannot be exchanged for the related Exchangeable Notes. As of the date of such a sale, the Holder must allocate its basis in the Exchangeable Notes between the part of the related Exchangeable Notes related to the Strip RCR Notes sold and the part of the Exchangeable Notes related to the Strip RCR Notes retained in proportion to their relative fair market values. Section 1286 of the Code treats the Holder as purchasing the Strip RCR Notes retained for the amount of the basis allocated to the retained Strip RCR Notes, and the Holder must then accrue any OID with respect to the retained Strip RCR Notes as described above. Section 1286 does not apply, however, if a Holder exchanges Exchangeable Notes for the related RCR Notes and retains all the RCR Notes. See "*— Exchanges.*"

Upon the sale of a Strip RCR Note, a Holder will realize gain or loss on the sale in an amount equal to the difference between the amount realized and its adjusted basis in the Strip RCR Notes. The Holder's adjusted basis generally is equal to the Holder's cost of the Strip RCR Notes (or portion of the cost of Exchangeable Notes allocable to the RCR Note), increased by income previously included, and reduced (but not below zero) by distributions previously received and by any amortized premium. If the Holder holds such Note as a capital asset, any gain or loss realized will be capital gain or loss, except to the extent provided under "*— Taxation of Beneficial Owners of Regular Notes—Sales and Other Dispositions of Regular Notes.*"

Although the matter is not free from doubt, if a Holder acquires in one transaction (other than an exchange described below under "*—Exchanges*") a combination of Strip RCR Notes that may be exchanged for related Exchangeable Notes, the Holder should be treated as owning the related Exchangeable Notes, in which case Section 1286 would not apply. If a Holder acquires such a combination in separate transactions, the law is unclear as to whether the combination should be aggregated or each Strip RCR Note should be treated as a separate debt instrument. Holders of Strip RCR Notes should consult their own tax advisors regarding the proper treatment of Strip RCR Notes in this regard. For the treatment of Strip RCR Notes received in exchange for Exchangeable Notes, see "*—Exchanges.*"

Special Tax Attributes

The Class 1M-2Y, Class 1M-2X, Class 1B-1Y and Class 1B-1X Notes will represent Strip RCR Notes. The Class 1M-2Y and Class 1B-1Y Notes represent the beneficial ownership of REMIC regular interests corresponding to the related Classes of Exchangeable Notes. As a result, these Notes will have the characteristics described in "*—REMIC Elections and Special Tax Attributes*" above. The Class 1M-2X and Class 1B-1X Notes represent the beneficial ownership of the notional principal contract components of the related Classes of Exchangeable Notes.

Combination RCR Classes

A Holder of a Combination RCR Note will be treated as the beneficial owner of a proportionate interest in the Exchangeable Notes related to that Combination RCR Note. Except in the case of a Holder that acquires a Combination RCR Note in an exchange described under "*—Exchanges*," a Holder of a Combination RCR Note must allocate its cost to acquire that certificate among the related Exchangeable Notes in proportion to their relative fair market values at the time of acquisition. Such a Holder should account for its ownership interest in each related Exchangeable Note as described under "*—Taxation of Beneficial Owners of Regular Notes*" and "*—Taxation of Beneficial Owners of Class 1M-1, Class 1M-2A, Class 1M-2B, Class 1M-2C and Class 1B-1 Notes*." When a Holder sells a Combination RCR Note, the Holder must allocate the sale proceeds among the related Exchangeable Notes in proportion to their relative fair market values at the time of sale.

Exchanges

If a Holder exchanges one or more Exchangeable Notes for the related RCR Note or Notes in the manner described under "*RCR Notes*," the exchange will not be taxable. Likewise, if a Holder exchanges one or more RCR Notes for the related Exchangeable Note or Notes in the manner described in that discussion, the exchange will not be a taxable exchange. In each of these cases, the Holder will be treated as continuing to own after the exchange the same combination of interests in the related Exchangeable Notes (or the same interest in the related Exchangeable Notes) that it owned immediately prior to the exchange.

Non-U.S. Persons

The following discussion applies to you if you are a non-U.S. Person.

Interest and OID

If you own a Note and are a non-U.S. Person, each payment of interest (and any payment of principal representing OID, if any) on such Note generally will be subject to a 30% U.S. withholding tax, unless

- you meet the general exemption for non-U.S. Persons described below;
- you meet the requirements for a reduced rate of withholding under a treaty; or
- the interest is "effectively connected" to a business you conduct in the United States (or, if an income tax treaty applies, the interest is attributable to a permanent establishment that you maintain in the United States), in each case as further described below.

In certain circumstances, you may be able to claim amounts that are withheld as a refund or as a credit against your U.S. federal income tax. If the 30% U.S. withholding tax on payments of interest (including OID, if any) does not apply, as described herein, such payments may nevertheless be subject to FATCA withholding tax, as defined below in "*—U.S. FATCA Withholding Tax*."

General Exemption for Non-U.S. Persons. Payments of interest (and any payment of principal representing OID, if any) on a Note to any non-U.S. Person generally are exempt from U.S. withholding tax if you satisfy the following conditions:

- (1) the appropriate payor in the chain of payment (the "**Withholding Agent**") has received prior to payment in the year in which such payment occurs, or in either of the two preceding years, a statement signed by you under penalties of perjury that certifies that you are not a U.S. Person and provides your name, address and taxpayer identification number, if any;
- (2) the Withholding Agent and all intermediaries between you and the Withholding Agent do not know or have reason to know that your non-U.S. beneficial ownership statement is false; and
- (3) you are not (a) a bank that receives payments on the Notes that are described in Section 881(c)(3)(A) of the Code, (b) a 10% shareholder of the Issuer within the meaning of Section 871(h)(3)(B) of the Code, or (c) a "controlled foreign corporation" related to the Issuer within the meaning of Section 881(c)(3)(C) of the Code.

Payments in respect of a notional principal contract generally are exempt from U.S. withholding tax.

You may make the non-U.S. beneficial ownership statement on an IRS Form W-8BEN, IRS Form W-8BEN-E or a substantially similar substitute form. You must inform the Withholding Agent (or the last intermediary in the chain between you and the Withholding Agent) of any change in the information on the statement within 30 days of the change. If you hold a Note through a securities clearing organization or certain other financial institutions, the organization or institution may provide a signed statement to the Withholding Agent on your behalf. In such case, however, the signed statement must be accompanied by a copy of an IRS Form W-8BEN, IRS Form W-8BEN-E or substitute form provided by you to the organization or institution. Treasury is empowered to publish a determination that a beneficial ownership statement from any person or class of persons will not be sufficient to preclude the imposition of U.S. federal withholding tax with respect to payments of interest made at least one month after the publication of such determination.

Exemption or Reduced Withholding Rate for Non-U.S. Persons Entitled to the Benefits of a Treaty. If you are entitled to the benefit of an income tax treaty to which the United States is a party, you may be eligible for an exemption from, or a reduced rate of, U.S. withholding tax (depending on the terms of the applicable treaty). An exemption or rate reduction under a treaty generally can be obtained by providing the Withholding Agent with a properly completed IRS Form W-8BEN, IRS Form W-8BEN-E, or any successor form, before interest is paid. However, neither an exemption nor a reduced withholding rate will be available if the Withholding Agent has actual knowledge or reason to know that the form is false.

Exemption for Non-U.S. Persons with Effectively Connected Income. If the interest (or OID, if any) you earn on a Note is "effectively connected" to a business you conduct in the United States (or, if an income tax treaty applies, the interest is attributable to a permanent establishment that you maintain in the United States), you generally can obtain an exemption from U.S. withholding tax by providing to the Withholding Agent a properly completed IRS Form W-8ECI, or any successor form, prior to the payment of interest, unless the Withholding Agent has actual knowledge or reason to know that the form is false. Payments of interest (or OID, if any) on a Note exempt from U.S. withholding tax as effectively-connected income nevertheless may be subject to U.S. federal income tax at graduated rates as if such amounts were earned by a U.S. Person. A non-U.S. Person that is a foreign corporation treated as engaged in the conduct of a trade or business in the United States through an unincorporated U.S. branch may be subject to branch profits tax in respect of interest (or OID, if any) earned on a Note.

Partnerships and Other Pass-through Entities. A payment to a foreign partnership is treated, with some exceptions, as a payment directly to the partners, so that the partners are required to provide any required certifications. If you hold a Note through a partnership or other pass-through entity, you should consult your own tax advisors regarding the application of these rules to your situation.

Disposition or Retirement of Notes

Except as provided below in "*Information Reporting and Backup Withholding*" and "*U.S. FATCA Withholding Tax*," a non-U.S. Person (other than certain nonresident alien individuals present in the United States for a total of 183 days or more during the taxable year of the disposition or retirement) will not be subject to U.S.

federal income tax or U.S. withholding tax with respect to any gain that is realized on the disposition or retirement of a Note, provided that the gain is not effectively connected with the conduct by the non-U.S. Person of a U.S. trade or business (or, if an income tax treaty applies, the gain is not attributable to a permanent establishment that the non-U.S. Person maintains in the United States). A non-U.S. Person that is a foreign corporation treated as engaged in the conduct of a trade or business in the United States through an unincorporated U.S. branch may be subject to branch profits tax on any gain from the disposition or retirement of a Note.

In the event that a withholding tax is imposed on any payment in respect of a Note, the Issuer has no obligation to pay additional interest or other amounts as a consequence thereof or to redeem the Notes before their stated maturity.

Designation of an Alternative Method or Index in Place of LIBOR

In the event that Fannie Mae designates an alternative method or index in place of LIBOR for determining monthly interest rates, the tax consequences with respect to the related Notes are unclear. Under general principles of federal income tax law, certain modifications of a debt instrument may cause a deemed exchange of the related Notes upon which gain or loss is realized if the modification constitutes a Significant Modification. It is possible that the designation of an alternative method or index in place of LIBOR could be treated as a Significant Modification, resulting in a deemed exchange upon which gain or loss may be realized; however, the IRS has issued favorable guidance that may reduce the likelihood that a designation of an alternative method or index will constitute a Significant Modification. Holders are advised to consult their own tax advisors regarding the designation of an alternative method or index.

Information Reporting and Backup Withholding

Payments of principal of and interest (including OID, if any) on Notes held by U.S. Persons other than corporations and other exempt Holders are required to be reported to the IRS and the Holder. Payments of principal of and interest (including OID, if any) on Notes held by non-U.S. Persons generally are required to be reported to the IRS and the Holder.

The Indenture Trustee will furnish or make available, at such times as required by applicable law, to each Holder such information as may be required to be provided under applicable law to enable Holders to prepare their U.S. federal income tax returns, if applicable.

Backup withholding of U.S. federal income tax may apply to payments made in respect of the Notes, as well as payments of proceeds from the sale of Notes. Backup withholding will apply on such payments to Holders that are not "exempt recipients" and that fail to provide certain identifying information (such as their taxpayer identification numbers) in the manner required. Individuals generally are not exempt recipients, whereas corporations and certain other entities generally are exempt recipients.

If a Note is sold before its Maturity Date to (or through) a broker, the broker may be required to withhold a portion of the sale price. The broker will not withhold if either the broker determines that the seller is a corporation or other exempt recipient or the seller provides, in the required manner, certain identifying information and, in the case of a non-U.S. Person, certifies that such seller is a non-U.S. Person (and certain other conditions are met). The broker must report such a sale to the IRS unless the broker determines that the seller is an exempt recipient or the seller certifies its non-U.S. status (and certain other conditions are met). Certification of the Holder's non-U.S. status normally would be made under penalties of perjury on IRS Form W-8BEN or IRS Form W-8BEN-E, although in certain cases it may be possible to submit certain other signed forms. For these purposes, the term "broker" includes all persons who, in the ordinary course of business, stand ready to effect sales made by others. This information reporting requirement generally will apply to a U.S. office of a broker and to a foreign office of a U.S. broker, as well as to a foreign office of a foreign broker (i) that is a "controlled foreign corporation" within the meaning of Section 957(a) of the Code, (ii) 50% or more of whose gross income from all sources for the three-year period ending with the close of its taxable year preceding the payment (or for such part of the period that the foreign broker has been in existence) was effectively connected with the conduct of a trade or business within the United States, or (iii) that is a foreign partnership with certain connections to the United States, unless such foreign office

has both documentary evidence that the seller is a non-U.S. Person and no actual knowledge, or reason to know, that such evidence is false.

A payment to a foreign partnership is treated, with some exceptions, for backup withholding purposes as a payment directly to the partners, so that the partners are required to provide any required certifications. If you hold a Note through a partnership or other pass-through entity, you should consult your own tax advisors regarding the application of these rules to your situation.

A Holder may claim any amounts withheld under the backup withholding rules as a refund or a credit against the Holder's U.S. federal income tax, provided that the required information is furnished to the IRS. Furthermore, the IRS may impose certain penalties on a Holder who is required to supply information but who does not do so in the proper manner.

Payments of interest (including OID, if any) on a Note that is beneficially owned by a non-U.S. Person will be reported annually on IRS Form 1042-S, which the Withholding Agent must file with the IRS and furnish to the Holder.

In the event that any U.S. withholding or backup withholding tax is imposed, Fannie Mae has no obligation to pay additional interest or other amounts as a consequence thereof or to redeem the Notes before their stated maturity.

U.S. FATCA Withholding Tax

Under the FATCA and Treasury regulations, a 30% withholding tax ("**FATCA withholding tax**") generally applies to certain withholdable payments that are made to foreign financial institutions and certain other non-financial foreign entities. The FATCA withholding tax generally will not apply where such payments are made to (i) a foreign financial institution that enters into an agreement with the IRS or complies with rules promulgated by the government of the jurisdiction in which it is organized or located pursuant to an intergovernmental agreement with the United States to, among other requirements, undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, report annually information about such accounts and withhold tax as may be required by such agreement; or (ii) a non-financial foreign entity that certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner. Application of the FATCA withholding tax does not depend on whether the payment otherwise would be exempt from U.S. withholding tax under an exemption described under "*— Non-U.S. Persons—Interest and OID*" or otherwise. Holders should consult their own tax advisors regarding the potential application and impact of the FATCA withholding tax to the Notes. To receive the benefit of an exemption from FATCA withholding tax, you must provide to the Withholding Agent a properly completed IRS Form W-8BEN or IRS Form W-8BEN-E or other applicable form evidencing such exemption.

In the event that the FATCA withholding tax is imposed on any payment of interest on a Note, Fannie Mae has no obligation to pay additional interest or other amounts as a consequence thereof or to redeem the Notes before their stated maturity.

General Information

The U.S. federal tax discussion set forth above is included for your general information only and may not apply in your particular situation. You should consult your own tax advisors with respect to the tax consequences of your purchase, ownership and disposition of the Notes, including the tax consequences under the tax laws of the United States, states, localities, countries other than the United States and any other taxing jurisdictions and the possible effects of changes in such tax laws.

STATE, LOCAL AND FOREIGN TAX CONSEQUENCES

In addition to the U.S. federal tax consequences described above, prospective investors in the Notes should consider the potential U.S. state and local tax consequences of the acquisition, ownership and disposition of the Notes and the tax consequences of the law of any non-U.S. jurisdiction in which they reside or do business. State, local and foreign tax law may differ substantially from the corresponding U.S. federal tax law, and the discussion

above does not purport to describe any aspect of the tax law of any state or other jurisdiction. You should consult your own tax advisors with respect to such matters.

LEGAL INVESTMENT

If prospective investors' investment activities are subject to investment laws and regulations, regulatory capital requirements or review by regulatory authorities, prospective investors may be subject to restrictions on investment in the Notes. Prospective investors should consult legal, tax and accounting advisers for assistance in determining the suitability of and consequences of the purchase, ownership and sale of the Notes.

- The Notes do not represent an interest in and will not be secured by the Reference Pool or any Reference Obligation.
- The Notes will not constitute "mortgage related securities" for purposes of the Secondary Mortgage Market Enhancement Act of 1984, as amended ("**SMMEA**").
- The Notes may be regarded by governmental authorities or others, or under applicable law, as high-risk, risk-linked or otherwise complex securities.

The Notes should not be purchased by prospective investors who are prohibited from acquiring securities having the foregoing characteristics. In addition, the Notes should not be purchased by prospective investors located in jurisdictions where their purchase of Notes could subject them to the risk of regulation as an insurance or reinsurance company or as otherwise being engaged in an insurance business.

None of the Issuer, the Initial Purchasers, the Indenture Trustee, the Delaware Trustee or any of their respective affiliates have made or will make any representation as to (i) the proper characterization of the Notes for legal investment or other purposes, (ii) the ability of particular prospective investors to purchase Notes for legal investment or other purposes or (iii) the ability of particular prospective investors to purchase Notes under applicable investment restrictions. Without limiting the generality of the foregoing, none of the Issuer, the Initial Purchasers, the Indenture Trustee, the Delaware Trustee or any of their respective affiliates have made or will make any representation as to the characterization of the Notes as a U.S. or non-U.S. investment under any state insurance code or related regulations. None of the Issuer, the Initial Purchasers, the Indenture Trustee or any of their respective affiliates are aware of any published precedent that addresses such characterization. There can be no assurance as to the nature of any advice or other action that may result from such consideration or the effect, if any, such advice or other action resulting from such consideration may have on the Notes.

EUROPEAN SECURITIZATION RULES

If prospective investors' investment activities are subject to investment laws and regulations, regulatory capital requirements or review by regulatory authorities, prospective investors may be subject to restrictions on investment in the Notes. Prospective investors should consult legal, tax and accounting advisers for assistance in determining the suitability of and consequences of the purchase, ownership and sale of the Notes.

The application of Regulation (EU) 2017/2402 (the "**EU Securitization Regulation**"), together with regulatory and implementing technical standards applicable thereto and guidelines and other materials published by the European Banking Authority, the European Securities and Markets Authority and the European Commission in relation thereto (the "**European Securitization Rules**"), to the Notes transaction (the "**Transaction**") is unclear. The EU Securitization Regulation has direct effect in member states of the European Union (the "**EU**") and is expected to be implemented by national legislation in other countries in the European Economic Area (the "**EEA**").

Investors should independently assess and determine whether they are subject to the "EU Due Diligence Requirements" of Article 5 of the EU Securitization Regulation, which applies to 'institutional investors', being (a) insurance undertakings and reinsurance undertakings as defined in Directive 2009/138/EC; (b) institutions for occupational retirement provision falling within the scope of Directive (EU) 2016/2341 (subject to certain exceptions), and certain investment managers and authorized entities appointed by such institutions; (c) alternative investment fund managers as defined in Directive 2011/61/EU which manage and/or market

alternative investment funds in the EU; (d) certain internally-managed investment companies authorized in accordance with Directive 2009/65/EC, and management companies as defined in that Directive; (e) credit institutions as defined in Regulation (EU) No 575/2013 ("**CRR**") (and certain consolidated affiliates thereof); and (f) investment firms as defined in CRR (and certain consolidated affiliates thereof) (together, "**EU Institutional Investors**").

Amongst other things, the EU Due Diligence Requirements restrict an EU Institutional Investor from investing in a securitization unless the EU Institutional Investor has verified that: (a) the originator or original lender of the underlying exposures of the securitization grants all the credits giving rise to the underlying exposures on the basis of sound and well-defined criteria and clearly established processes for approving, amending, renewing and financing those credits and has effective systems in place to apply those criteria and processes to ensure that credit-granting is based on a thorough assessment of the obligor's creditworthiness; (b) the originator, sponsor or original lender of the securitization (i) retains on an ongoing basis a material net economic interest which, in any event, shall not be less than 5%, determined in accordance with Article 6 of the EU Securitization Regulation, and (ii) discloses the risk retention to EU Institutional Investors; and (c) the originator, sponsor or securitization special purpose entity ("**SSPE**") has, where applicable, made available the information required by Article 7 of the EU Securitization Regulation in accordance with the frequency and modalities provided for in Article 7 of the EU Securitization Regulation and requires that the EU Institutional Investor carries out initial and ongoing due-diligence and monitoring procedures with respect to the securitization, its securitization position and the underlying exposures.

In reviewing Fannie Mae's credit granting standards for the purposes of the EU Due Diligence Requirements, investors subject to the EU Due Diligence Requirements may wish to review "*Loan Acquisition Practices and Servicing Standards — Credit Standards*".

In relation to the risk retention requirements of the European Securitization Rules, the Reference Obligations are not assets of Fannie Mae, and its exposure to the credit risk related to the Transaction is in the form of Fannie Mae's guaranty obligations on the related MBS (the "**Guaranty Obligations**"). Fannie Mae's Guaranty Obligations represent general unsecured obligations. Fannie Mae's Guaranty Obligations were undertaken in the ordinary course of Fannie Mae's business, were established prior to issuance of the Notes, and exist independently of the Transaction.

In determining the extent to which the EU Due Diligence Requirements apply to the Transaction, investors subject to the European Securitization Rules may wish to consider the guidance appearing in the preamble to the draft regulatory technical standards contained in the European Banking Authority's Final Draft Regulatory Technical Standards specifying the requirements for originators, sponsors and original lenders relating to risk retention pursuant to Article 6(7) of the Securitization Regulation of July 31, 2018, which provides in relevant part: "Where an entity exclusively securitizes assets consisting of its own liabilities, alignment of interests is established automatically for that securitization. Where it is clear that the credit risk remains with the originator, the retention of interest by the originator is unnecessary and would not improve on the pre-existing position." Although the Transaction is not structured as a securitization of the Guaranty Obligations, it is being undertaken, in part, to offset a portion of Fannie Mae's exposure under the Guaranty Obligations. Notwithstanding the Transaction, Fannie Mae will remain fully liable under the Guaranty Obligations.

Fannie Mae does not intend to collateralize any of its credit exposure under the Guaranty Obligations.

In order to assist EU Institutional Investors in evaluating a potential investment in the Notes, on the Closing Date, Fannie Mae will enter into a letter agreement (the "**European Risk Retention Letter**") pursuant to which Fannie Mae will irrevocably undertake to the Indenture Trustee, for the benefit of each holder or prospective holder of a beneficial interest in any Notes that is an EU Institutional Investor (an "**Affected Investor**") that, in connection with the European Securitization Rules, as at the origination and on an ongoing basis, so long as any Notes remain outstanding:

- it will, as originator (for purposes of the European Securitization Rules), retain a material net economic interest (the "**Retained Interest**") in the exposure related to the Transaction of not less than 5% in the form specified in Article 6(3)(a) of the EU Securitization Regulation (i.e., the retention of not less than 5% of the nominal value of each of the tranches sold or transferred to investors);

- accordingly, neither it nor its affiliates will hedge or otherwise mitigate its credit risk under or associated with the Retained Interest or the Reference Obligations or sell, transfer or otherwise surrender all or part of the rights, benefits or obligations arising from the Retained Interest, except to the extent permitted in accordance with the European Securitization Rules; accordingly, neither it nor its affiliates will, through this transaction or any subsequent transactions, enter into agreements that transfer or hedge more than a 95% *pro rata* share of the credit risk corresponding to any of (i) the Class 1A-H Reference Tranche, (ii) the Class 1M-1 and Class 1M-1H Reference Tranches (in the aggregate), (iii) the Class 1M-2A and Class 1M-AH Reference Tranches (in the aggregate), (iv) the Class 1M-2B and Class 1M-BH Reference Tranches (in the aggregate), (v) the Class 1M-2C and Class 1M-CH Reference Tranches (in the aggregate) or (vi) the Class 1B-1 and Class 1B-1H Reference Tranches (in the aggregate) and will not enter into any such agreements with respect to any of the credit risk corresponding to the Class 1B-2H Reference Tranche;
- it will, upon written request and further subject to any applicable duty of confidentiality or data protection restrictions, provide such information in its possession as may reasonably be required by the Indenture Trustee, for the benefit of each Affected Investor, for the purposes of the EU Due Diligence Requirements applicable to such investor as of the Closing Date and at any time prior to maturity of the Notes (but none of Fannie Mae, the Issuer or any other transaction party agrees or undertakes to provide all of the information specified for the purposes of or to provide any such information in the form specified in Article 7 of the EU Securitization Regulation);
- it will confirm to the Indenture Trustee for reporting to Holders of the Notes its continued compliance with the undertakings set out at the first and second bullet points above (which confirmation may be by email): (i) on a monthly basis; (ii) following its determination that the performance of the Notes or the risk characteristics of the Notes or of the Reference Obligations has materially changed; and (iii) following knowledge of a breach of the obligations included in the Indenture; and
- it will promptly notify the Indenture Trustee in writing if for any reason: (i) it ceases to hold the Retained Interest in accordance with the first bullet point above; or (ii) it or any of its affiliates fails to comply with the covenants set out in the second and third bullet points above in any way.

For details of Fannie Mae's broader business purpose see "*Fannie Mae*" of this Offering Memorandum.

Article 7 of the EU Securitization Regulation requires the originator, sponsor and SSPE of a securitization (as such terms are defined in such regulation) to make certain prescribed information relating to the securitization available to investors, competent authorities and, upon request, to potential investors. Such prescribed information includes quarterly asset level reporting and quarterly investor reporting using a specified form of reporting template. The EU Securitization Regulation does not explicitly specify the jurisdictional scope of application of Article 7. Although Fannie Mae and the Issuer are non-EU entities, Fannie Mae has elected to provide EU Institutional Investors with certain informational resources (collectively, the "**Supplemental Resources**") to support such investors' compliance with the European Securitization Rules.

None of the transaction parties, their respective affiliates or any other person: (i) makes any representation that the Supplemental Resources or the undertakings and information described herein or to be provided pursuant to the European Risk Retention Letter and the Transaction Documents are sufficient in all circumstances for the purpose of permitting an EU Institutional Investor to comply with the EU Due Diligence Requirements or any other applicable legal, regulatory or other requirements in respect of an investment in the Notes; (ii) will have any liability to any prospective investor or any other person with respect to any deficiency in such information (including the Supplemental Resources) or any failure of the transactions contemplated herein to comply with or otherwise satisfy the EU Due Diligence Requirements or any other applicable, legal, regulatory or other requirements; and (iii) will have any obligation, other than the obligations assumed by Fannie Mae under the EU Risk Retention Letter and the obligations assumed by the transaction parties under the Transaction Documents generally, to assist EU Institutional Investors in complying with the EU Due Diligence Requirements or any other applicable legal, regulatory or other requirements.

Prospective investors are themselves responsible for monitoring and assessing changes to the European Securitization Rules and their regulatory capital requirements.

Each Affected Investor is required to independently assess and determine whether Fannie Mae's undertakings above, the undertakings of the Issuer and the disclosure under "*European Securitization Rules*" and generally in this Offering Memorandum, the Supplemental Resources, the European Risk Retention Letter and the Transaction Documents are sufficient for purposes of such Affected Investor complying with any aspect of the EU Due Diligence Requirements applicable to it. None of the Issuer, the Initial Purchasers, the Indenture Trustee, the Delaware Trustee or any other person makes any representation or provides any assurance to the effect that the undertakings and information described herein or to be provided pursuant to the Transaction Documents is sufficient for such purposes.

Each Noteholder and prospective investor in the Notes that is subject to any retention or due diligence requirements such as the EU Due Diligence Requirements should consult with its own legal, accounting and other advisors and/or its national regulator in determining the extent to which such information (including the Supplemental Resources) is sufficient for such purpose. See "*Risk Factors — Investment Factors and Risks Related to the Notes — Additional Governmental Actions in the U.S. and Abroad Could Adversely Affect the Market Value of the Notes*".

CERTAIN ERISA CONSIDERATIONS

The following is a summary of material considerations arising under ERISA and the prohibited transaction provisions of Section 4975 of the Code that may be relevant to a prospective purchaser of the Notes that is an employee benefit plan, or certain other retirement plans and arrangements, including individual retirement accounts ("**IRAs**") and annuities, Keogh plans, and collective investment funds in which such plans, accounts, annuities or arrangements are invested, that are described in or must follow Title I of ERISA or Section 4975 of the Code, or an entity that is deemed to hold the assets of any such plan or arrangement, or a governmental or church plan or foreign plan that is subject to foreign law or U.S. federal, state or local law similar to that of Title I of ERISA or Section 4975 of the Code (collectively, "**Plans**," and each such similar law, a "**Similar Law**") or a person or entity acting on behalf of, using the assets of or deemed to use the assets of a Plan. The discussion does not purport to deal with all aspects of ERISA or Section 4975 of the Code or Similar Law that may be relevant to particular Plans in light of their particular circumstances.

The discussion is based on current provisions of ERISA and the Code, existing regulations under ERISA and the Code, the legislative history of ERISA and the Code, existing administrative rulings of the U.S. Department of Labor ("**DOL**") and reported judicial decisions. No assurance can be given that legislative, judicial, or administrative changes will not affect the accuracy of any statements herein with respect to transactions entered into or contemplated prior to the effective date of such changes. Unless otherwise stated, reference in this section to the purchase, holding or disposition of a Note will also mean the purchase, holding or disposition of a beneficial interest in such Note.

General

ERISA and Section 4975 of the Code impose certain requirements and duties on Plans and on persons who are fiduciaries of Plans and of entities whose underlying assets include assets of Plans by reason of a Plan's investment in such entities. These duties include investment prudence and diversification and the requirement that a Plan's investments be made in accordance with the documents governing the Plan. The prudence of a particular investment must be determined by the responsible fiduciary of a Plan by taking into account the Plan's particular circumstances and liquidity needs and all of the facts and circumstances of the investment, including the availability of a public market for the investment. In addition, certain U.S. federal, state and local laws impose similar duties on fiduciaries of governmental or church plans which are not subject to ERISA or Section 4975 of the Code.

Any fiduciary of a Plan or of an entity whose underlying assets include assets of Plans by reason of a Plan's investment in such entity, or of a governmental or church plan or foreign plan that is subject to fiduciary standards similar to those of ERISA ("**Plan Fiduciary**"), that proposes to cause such a Plan or entity to purchase the Notes

should determine whether, under the general fiduciary standards of ERISA or other applicable law, an investment in the Notes is appropriate for such plan or entity. In determining whether a particular investment is appropriate for a Plan, DOL regulations provide that the fiduciaries of a Plan must give appropriate consideration to, among other things, the role that the investment plays in the Plan's portfolio, taking into consideration whether the investment is designed reasonably to further the Plan's purposes, an examination of the risk and return factors, the portfolio's composition with regard to diversification, the liquidity and current return of the total portfolio relative to the anticipated cash flow needs of the Plan and the projected return of the total portfolio relative to the Plan's funding objectives. Before investing the assets of a Plan in the Notes, a Plan Fiduciary should determine whether such an investment is consistent with the foregoing regulations and its fiduciary responsibilities, including any specific restrictions to which such Plan Fiduciary may be subject.

Prohibited Transactions

General

Section 406 of ERISA and Section 4975 of the Code prohibit certain transactions ("**Prohibited Transactions**") involving the assets of a Plan and certain persons (referred to as "parties in interest" under ERISA or "disqualified persons" under the Code) having certain relationships to such Plans, unless an exemption is available. A party in interest or disqualified person who engages in a Prohibited Transaction may be subject to excise taxes and other penalties and liabilities under ERISA and the Code. Section 4975 of the Code imposes excise taxes, or, in some cases, a civil penalty may be assessed pursuant to Section 502(i) of ERISA, on parties in interest which engage in non-exempt Prohibited Transactions. If the disqualified person who engages in the transaction is the individual on behalf of whom an IRA is maintained (or his beneficiary), the IRA will lose its tax-exempt status and its assets will be deemed to have been distributed to such individual in a taxable distribution (and no excise tax will be imposed) on account of the Prohibited Transaction. In addition, a Plan Fiduciary who permits a Plan to engage in a transaction that the Plan Fiduciary knows or should know is a Prohibited Transaction may be liable to the Plan for any loss the Plan incurs as a result of the transaction or for any profits earned by the Plan Fiduciary in the transaction.

Plan Asset Regulation

The DOL has promulgated regulations at 29 CFR § 2510.3-101, as modified by Section 3(42) of ERISA (the "**Plan Asset Regulation**"), describing what constitutes the assets of a Plan with respect to the Plan's investment in an entity for purposes of certain provisions of ERISA, including the fiduciary responsibility provisions of Title I of ERISA, and Section 4975 of the Code. The Plan Asset Regulation describes the circumstances under which Plan Fiduciaries and entities with certain specified relationships to a Plan are required to "look through" the investment vehicle (such as the Issuer) and treat as an asset of the Plan each underlying investment made by such investment vehicle. If the assets of an entity or an investment vehicle in which a Plan invests are considered to be "plan assets" pursuant to the Plan Asset Regulation, then any person who exercises control over those assets may be subject to ERISA's fiduciary standards. Under the Plan Asset Regulation, if a Plan invests in an "equity interest" of an entity that is neither a "publicly-offered security" nor a security issued by an investment company registered under the Investment Company Act of 1940, as amended ("**Investment Company Act**"), the Plan's assets include both the equity interest and an undivided interest in each of the entity's underlying assets, unless it is established that the entity is an "operating company" or that equity participation in the entity by Benefit Plan Investors (as defined below) is not "significant". Equity participation by Benefit Plan Investors in an entity or investment vehicle is significant if, after the most recent acquisition of any class of securities in the entity or investment vehicle, 25% or more of the value of any class of equity interests in the entity or investment vehicle (excluding the value of interests held by certain persons who exercise discretion and control over the assets of such entity or investment vehicle or receive a fee for advice to such entity or vehicle) is held by Benefit Plan Investors.

The term "**Benefit Plan Investor**" as defined in the Plan Asset Regulation includes (i) any employee benefit plan as defined in Section 3(3) of ERISA that is subject to Title I of ERISA, (ii) any plan described in and subject to Section 4975(e)(1) of the Code and (iii) any entity whose underlying assets are deemed to include assets of an employee benefit plan or plan by reason of the ownership of equity interests in such entity by one or more employee benefit plans or a plans. Under the Plan Asset Regulation, the term "equity interest" is defined as any interest in an entity other than an instrument that is treated as indebtedness under "applicable local law" and which has no "substantial equity features". Except for the Class 1B-1 Notes (and RCR Notes for which they may be exchanged),

the Notes should not be considered to be "equity interests" in the Issuer. This determination is based in part on the traditional debt features of such Notes, including the absence from such Notes of conversion rights, warrants and other typical equity features. As a result, the Issuer's assets should not be treated as plan assets under the Plan Asset Regulation.

Prohibited Transaction Exemptions

Additionally, Prohibited Transactions may arise if Notes are acquired by a Plan or a person or entity acting on behalf of, using the assets of or deemed to use the assets of a Plan with respect to which the Issuer or any of its affiliates is a party in interest or a disqualified person. Certain exemptions from the Prohibited Transaction provisions of Section 406 of ERISA and Section 4975 of the Code may be applicable, however, depending in part on the type of Plan Fiduciary making the decision to acquire the Notes and the circumstances under which such decision is made. Included among these exemptions are PTCE 96-23 (relating to transactions directed by an in-house professional asset manager); PTCE 95-60 (relating to transactions involving insurance company general accounts); PTCE 91-38 (relating to investments by bank collective investment funds); PTCE 84-14 (relating to transactions effected by a qualified professional asset manager); and PTCE 90-1 (relating to investments by insurance company pooled separate accounts). In addition, Section 408(a)(17) of ERISA and Section 4975(d)(20) of the Code provide a statutory exemption for prohibited transactions between a Plan and a person that is a party in interest or a disqualified person (other than a fiduciary an affiliate of a fiduciary that has or exercises discretionary authority or control or renders investment advice with respect to the assets involved in the transaction) solely by reason of providing services to the Plan, provided that there is adequate consideration. Prospective investors should consult with their advisors regarding the application of any of the foregoing administrative or statutory exemptions. There can be no assurance that any of these class exemptions or any other exemption will be available with respect to any particular transaction involving the Notes.

Governmental plans, church plans or foreign plans, while not subject to the prohibited transaction provisions of Section 406 of ERISA or Section 4975 of the Code or the fiduciary provisions of ERISA (including the provisions of ERISA pursuant to which assets of a Plan may be deemed to include assets of the Issuer or pursuant to which the Issuer could be deemed to be a fiduciary with respect to such Plan) may nevertheless be subject to Similar Law.

Each purchaser or transferee of a Note (other than the Class 1B-1 Notes or RCR Notes for which Class 1B-1 Notes may be exchanged) that is a Plan or a person or entity acting on behalf of, using the assets of or deemed to use the assets of, any Plan will represent or be deemed to have represented that the purchase, ownership and disposition of a Note or any beneficial interest therein will not constitute or result in a non-exempt Prohibited Transaction or, in the case of a governmental plan, church plan or foreign plan, a violation of a Similar Law, and neither the Issuer nor any of its affiliates is a fiduciary (as defined under ERISA) with respect to such purchaser's or transferee's holding or disposition of a Note or in connection with any of its rights in connection therewith. Each purchaser or transferee of a Class 1B-1 Note (or an RCR Note for which Class 1B-1 Notes may be exchanged) will represent or be deemed to have represented that it is not a Plan or using the assets of a Plan.

Review by Plan Fiduciaries

Any Plan Fiduciary considering whether to purchase Notes on behalf of a Plan should consult with its counsel regarding the applicability of the fiduciary responsibility and prohibited transaction provisions of ERISA and the Code to a related investment and the availability of any prohibited transaction exemptions. The sale of the Notes to a Plan is in no respect a representation by the Issuer that this investment meets all relevant requirements with respect to investments by Plans generally or any particular Plan or that this investment is appropriate for any such Plans generally or any particular Plan.

Due to the possibility that Fannie Mae, the Issuer, any Initial Purchaser or any of their respective affiliates may receive certain benefits in connection with the sale or holding of the Notes, the purchase of the Notes using "assets of a plan" (as described in 29 C.F.R. Section 2510.3-101, as modified by Section 3(42) of ERISA) over which any of these parties or their affiliates has investment authority, or renders investment advice for a fee with respect to the assets of the plan, or is the employer or other sponsor of the plan, might be deemed to be a violation of a provision of Title I of ERISA or Section 4975 of the Code. Accordingly, the Notes may not be purchased using the assets of any plan if Fannie Mae, any Initial Purchaser or any of their respective affiliates has investment authority, or renders investment advice for a fee with respect to the assets of the plan, or is the employer or other sponsor of the plan,

unless an applicable prohibited transaction exemption is available to cover the purchase or holding of the Notes or the transaction is not otherwise prohibited.

BY ITS PURCHASE OF A NOTE (OTHER THAN THE CLASS 1B-1 NOTES OR RCR NOTES FOR WHICH CLASS 1B-1 NOTES MAY BE EXCHANGED) (OR A BENEFICIAL INTEREST THEREIN), THE PURCHASER THEREOF WILL REPRESENT OR WILL BE DEEMED TO REPRESENT AND WARRANT (A) THAT IT IS NOT AND IS NOT ACTING ON BEHALF OF: (I) AN "EMPLOYEE BENEFIT PLAN" AS DEFINED IN SECTION 3(3) OF ERISA THAT IS SUBJECT TO TITLE I OF ERISA, (II) A PLAN DESCRIBED IN SECTION 4975(e)(1) OF THE CODE THAT IS SUBJECT TO SECTION 4975 OF THE CODE, (III) AN ENTITY WHICH IS DEEMED TO HOLD THE ASSETS OF ANY SUCH PLAN PURSUANT TO 29 C.F.R. SECTION 2510.3-101, AS MODIFIED BY SECTION 3(42) OF ERISA, WHICH EMPLOYEE BENEFIT PLAN, PLAN OR ENTITY IS SUBJECT TO TITLE I OF ERISA OR SECTION 4975 OF THE CODE, OR (IV) A GOVERNMENTAL, CHURCH OR FOREIGN PLAN WHICH IS SUBJECT TO SIMILAR LAW ((I)-(IV) COLLECTIVELY REFERRED TO AS "BENEFIT PLAN INVESTOR") OR (B) THAT ITS PURCHASE, OWNERSHIP OR DISPOSITION OF SUCH NOTE WILL NOT CONSTITUTE OR RESULT IN A NON-EXEMPT PROHIBITED TRANSACTION UNDER SECTION 406 OF ERISA OR SECTION 4975 OF THE CODE (OR, IN THE CASE OF A GOVERNMENTAL OR CHURCH PLAN, OR FOREIGN PLAN, ANY VIOLATION OF SIMILAR LAW). BY ITS PURCHASE OF A CLASS 1B-1 NOTE (OR AN RCR NOTE FOR WHICH CLASS 1B-1 NOTES MAY BE EXCHANGED) (OR BENEFICIAL INTEREST THEREIN), THE PURCHASER THEREOF WILL REPRESENT OR WILL BE DEEMED TO REPRESENT AND WARRANT THAT IT IS NOT A BENEFIT PLAN INVESTOR.

DISTRIBUTION ARRANGEMENTS

The Issuer will offer the Notes to or through the Initial Purchasers under the terms and conditions set forth in the note purchase agreement, dated as of January ____, 2020 (as amended, supplemented or replaced from time to time, the "**Note Purchase Agreement**"), among the Issuer, Fannie Mae, Morgan Stanley & Co. LLC ("**Morgan Stanley**"), and Wells Fargo Securities, LLC ("**Wells Fargo Securities**"), under which Morgan Stanley is acting for itself and as representative of BofA Securities, Inc. ("**BofA Securities**"), Citigroup Global Markets Inc. ("**Citigroup**"), Goldman Sachs & Co. LLC ("**Goldman Sachs**"), and Nomura Securities International, Inc. ("**Nomura**") each in its capacity as initial purchaser, and Drexel Hamilton, LLC and Loop Capital Markets LLC in their capacities as selling group members, and Wells Fargo Securities is acting for itself. Morgan Stanley, Wells Fargo Securities, BofA Securities, Citigroup, Goldman Sachs and Nomura are collectively referred to as the "**Initial Purchasers**".

Under the terms and subject to the conditions set forth in the Note Purchase Agreement for the sale of Notes, each of the Initial Purchasers has severally agreed, subject to the terms and conditions set forth therein, to purchase the principal balance of the Notes set forth opposite its name below:

| | Principal Balance of Class 1M-1 Notes | Amount of Initial Purchaser Fee for Class 1M-1 Notes |
|--|--|---|
| Morgan Stanley & Co. LLC | \$ | \$ |
| Wells Fargo Securities, LLC | \$ | \$ |
| BofA Securities, Inc. | \$ | \$ |
| Citigroup Global Markets Inc. | \$ | \$ |
| Goldman Sachs & Co. LLC | \$ | \$ |
| Nomura Securities International, Inc. | \$ | \$ |
| Total..... | \$ | \$ |

| | Principal Balance of Class 1M-2 Notes | Amount of Initial Purchaser Fee for Class 1M-2 Notes |
|--|--|---|
| Morgan Stanley & Co. LLC | \$ | \$ |
| Wells Fargo Securities, LLC | \$ | \$ |
| BofA Securities, Inc. | \$ | \$ |
| Citigroup Global Markets Inc. | \$ | \$ |
| Goldman Sachs & Co. LLC | \$ | \$ |
| Nomura Securities International, Inc. | \$ | \$ |
| Total..... | \$ | \$ |

| | Principal Balance of Class 1B-1 Notes | Amount of Initial Purchaser Fee for Class 1B-1 Notes |
|--|--|---|
| Morgan Stanley & Co. LLC | \$ | \$ |
| Wells Fargo Securities, LLC | \$ | \$ |
| BofA Securities, Inc. | \$ | \$ |
| Citigroup Global Markets Inc. | \$ | \$ |
| Goldman Sachs & Co. LLC | \$ | \$ |
| Nomura Securities International, Inc. | \$ | \$ |
| Total..... | \$ | \$ |

The Initial Purchasers will be acting as the Issuer's agents in the placing of the Notes and the Initial Purchasers' responsibility in this regard is limited to a "commercially reasonable best efforts" basis in placing the Notes with no understanding, express or implied, on the Initial Purchasers' part of a commitment to purchase or place the Notes. The Issuer will sell the Notes to each purchaser through the Initial Purchasers as agents and the Initial Purchasers will have no ownership interest in or title to the Notes prior to the purchase thereof by the purchasers and, in the event any such purchase is not consummated for any reason by a purchaser, will have no obligation to purchase any related Notes from the Issuer for their own accounts; *provided, however*, that the Initial Purchasers will have the right, but will not be obligated, to purchase Notes as principals for their own accounts or to facilitate the sale of any Notes to a purchaser by acting as initial purchaser. The Note Purchase Agreement entitles the Initial Purchasers or the Issuer to terminate such sale in certain circumstances before payment for the Notes is made to the Issuer. Except under certain circumstances, any Initial Purchaser may sell the Notes it has purchased as principal to other dealers at a concession, in the form of a discount that other Initial Purchasers receive. The concession may be all or a portion of the underwriting compensation. For a description of potential conflicts that exist among the parties involved in this transaction, see "*Risk Factors — The Interests of Fannie Mae, the Initial Purchasers and Others May Conflict With and Be Adverse to the Interests of the Noteholders*".

The Note Purchase Agreement provides that Fannie Mae will be required to indemnify the Initial Purchasers against certain civil liabilities under the Securities Act or contribute to payments to be made in respect of such liabilities.

The Initial Purchasers may make a secondary market in the Notes, but are not obligated to do so. There can be no assurance that a secondary market for the Notes will develop or, if it does develop, that it will continue.

Price Stabilization

In connection with this offering, the Initial Purchasers, acting directly or through affiliates, may engage in transactions that stabilize, maintain or otherwise affect the market price of the Notes. Such transactions may include stabilizing transactions pursuant to which the Initial Purchasers, acting directly or through affiliates, may bid for or purchase Notes in the open market or otherwise for the purpose of stabilizing the market price of the Notes. A Initial Purchaser, acting directly or through affiliates, may also create a short position for its account by selling more

Notes in connection with the offering than it is committed to purchase from the Issuer, and in such case may purchase Notes in the open market following completion of the offering to cover all or a portion of such short position. Any of the transactions described in this paragraph may result in the maintenance of the price of the Notes at a level above that which might otherwise prevail in the open market. None of the transactions described in this paragraph is required, and if any are undertaken, they may be discontinued at any time.

The Initial Purchasers and their respective affiliates may engage in transactions with, or perform services for, the Issuer and their respective affiliates in the ordinary course of business.

Delivery and Settlement

It is expected that delivery of the Notes to investors will be made in book-entry form through the Same-Day Funds Settlement System of DTC, which may include delivery through Clearstream and Euroclear on or about the Closing Date, against payment therefor in immediately available funds. See "*Description of the Notes — Form, Registration and Transfer of the Notes*".

Limited Liquidity

There currently is no secondary market for the Notes, and there can be no assurance that such a market will develop or, if it does develop, that it will continue or will provide investors with a sufficient level of liquidity of investment. The Initial Purchasers will have no obligation to make a market in the Notes. Even if an Initial Purchaser engages in market-making activities with respect to the Notes, it may discontinue or limit such activities at any time. In addition, the liquidity of the Notes may be affected by present uncertainties and future unfavorable developments concerning legal investment. Further, even though Fannie Mae may from time to time repurchase or otherwise acquire any Class of Notes, neither Fannie Mae nor the Issuer has any obligation to repurchase or acquire any Class of Notes or issue securities similar to the Notes in the future. Consequently, prospective investors should be aware that they may be required to bear the financial risks of an investment in the Notes for an indefinite period of time. See "*Risk Factors — Investment Factors and Risks Related to the Notes — The Transaction May Result in Limited Liquidity of the Notes, Which May Limit Investors' Ability to Sell the Notes*".

Selling Restrictions

The Notes may be offered and sold outside of the United States, within the United States or simultaneously outside of and within the United States, only where it is legal to make such offers and sales.

The Initial Purchasers have represented and agreed that they have complied and will comply with all applicable laws and regulations in each jurisdiction in which or from which they may purchase, offer, sell or deliver any Notes or distribute this Offering Memorandum or any other offering material. The Initial Purchasers also have agreed to comply with the selling restrictions relating to the jurisdictions set forth in [Appendix D](#).

Subject to limited exceptions in connection with the initial sale of the Notes, each purchaser of a Note, in making its purchase, will be deemed to have acknowledged, represented and agreed as follows:

(1) Such purchaser (i) is a Qualified Institutional Buyer or is not a "U.S. Person" within the meaning of Regulation S and (ii) is purchasing for its own account (and not for the account of others) or as a fiduciary or agent for others (which others also are Qualified Institutional Buyers or non-"U.S. Persons" within the meaning of Regulation S). Such purchaser is aware that it (or any account for which it is purchasing) may be required to bear the economic risk of an investment in the Notes for an indefinite period, and it (or such account) is able to bear such risk for an indefinite period.

(2) No sale, pledge or other transfer of any Note may be made by any person unless (i) such sale, pledge or other transfer is made to the Issuer or (ii) such sale, pledge or other transfer is made to a person whom the seller reasonably believes after due inquiry is a Qualified Institutional Buyer or non-"U.S. person" within the meaning of Regulation S acting for its own account (and not for the account of others) or as a fiduciary or agent for others (which others also are Qualified Institutional Buyers or non-"U.S. Persons" within the meaning of Regulation S) to whom notice is given that the sale, pledge or transfer of the Note is restricted to Qualified Institutional Buyers and non-"U.S. Persons" within the meaning of Regulation S.

(3) The Notes will bear the following legends (and such legends will satisfy the notice requirement referred to in (2)(ii) above), unless the Issuer determines otherwise in accordance with applicable law:

BY ITS ACCEPTANCE OF THIS NOTE THE HOLDER OF THIS NOTE IS DEEMED TO REPRESENT THAT IT IS A QUALIFIED INSTITUTIONAL BUYER (AS SUCH TERM IS DEFINED IN THE INDENTURE, DATED JANUARY 23, 2020) OR NON-"U.S. PERSON" (AS SUCH TERM IS DEFINED IN REGULATION S UNDER THE SECURITIES ACT ("REGULATION S")) AND IS ACQUIRING SUCH NOTE FOR ITS OWN ACCOUNT (AND NOT FOR THE ACCOUNT OF OTHERS) OR AS A FIDUCIARY OR AGENT FOR OTHERS (WHICH OTHERS ALSO ARE QUALIFIED INSTITUTIONAL BUYERS OR NON-"U.S. PERSONS" WITHIN THE MEANING OF REGULATION S) TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS RESTRICTED TO QUALIFIED INSTITUTIONAL BUYERS AND NON-"U.S. PERSONS" WITHIN THE MEANING OF REGULATION S.

NO SALE, PLEDGE OR OTHER TRANSFER OF THIS NOTE MAY BE MADE BY ANY PERSON UNLESS (I) SUCH SALE, PLEDGE OR OTHER TRANSFER IS MADE TO THE ISSUER OR (II) SUCH SALE, PLEDGE OR OTHER TRANSFER IS MADE TO A PERSON WHOM THE TRANSFEROR REASONABLY BELIEVES AFTER DUE INQUIRY IS A QUALIFIED INSTITUTIONAL BUYER OR NON-"U.S. PERSON" WITHIN THE MEANING OF REGULATION S ACTING FOR ITS OWN ACCOUNT (AND NOT FOR THE ACCOUNT OF OTHERS) OR AS A FIDUCIARY OR AGENT FOR OTHERS (WHICH OTHERS ALSO ARE QUALIFIED INSTITUTIONAL BUYERS OR NON-"U.S. PERSONS" WITHIN THE MEANING OF REGULATION S) TO WHOM NOTICE IS GIVEN THAT THE SALE, PLEDGE OR TRANSFER IS RESTRICTED TO QUALIFIED INSTITUTIONAL BUYERS AND NON-"U.S. PERSONS" WITHIN THE MEANING OF REGULATION S. ANY ATTEMPTED TRANSFER IN CONTRAVENTION OF THE IMMEDIATELY PRECEDING RESTRICTIONS WILL BE VOID AB INITIO AND THE PURPORTED TRANSFEROR WILL CONTINUE TO BE TREATED AS THE OWNER OF THE NOTES FOR ALL PURPOSES.

"Qualified Institutional Buyer" means:

(i) Any of the following entities, acting for its own account or the accounts of other Qualified Institutional Buyers, that in the aggregate owns and invests on a discretionary basis at least \$100 million in securities of issuers that are not affiliated with the entity:

(A) Any *insurance company* as defined in section 2(13) of the Securities Act;

Note: A purchase by an insurance company for one or more of its separate accounts, as defined by section 2(a)(37) of the Investment Company Act, which are neither registered under section 8 of the Investment Company Act nor required to be so registered, will be deemed to be a purchase for the account of such insurance company.

(B) Any *investment company* registered under the Investment Company Act or any *business development company* as defined in section 2(a)(48) of the Investment Company Act;

(C) Any *Small Business Investment Company* licensed by the U.S. Small Business Administration under section 301(c) or (d) of the Small Business Investment Act of 1958;

(D) Any *plan* established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefit of its employees;

(E) Any *employee benefit plan* within the meaning of Title I of ERISA;

(F) Any trust fund whose trustee is a bank or trust company and whose participants are exclusively plans of the types identified in sub-clauses (D) or (E) above, except trust funds that include as participants individual retirement accounts or H.R. 10 plans.

(G) Any *business development company* as defined in section 202(a)(22) of the Investment Advisers Act;

(H) Any organization described in section 501(c)(3) of the Code, corporation (other than a bank as defined in section 3(a)(2) of the Securities Act or a savings and loan association or other institution referenced in section 3(a)(5)(A) of the Securities Act or a foreign bank or savings and loan association or equivalent institution), partnership, or Massachusetts or similar business trust; and

(I) Any *investment adviser* registered under the Investment Advisers Act.

(ii) Any *dealer* registered pursuant to section 15 of the Exchange Act, acting for its own account or the accounts of other Qualified Institutional Buyers, that in the aggregate owns and invests on a discretionary basis at least \$10 million of securities of issuers that are not affiliated with the dealer, *provided*, that securities constituting the whole or a part of an unsold allotment to or subscription by a dealer as a participant in a public offering will not be deemed to be owned by such dealer;

(iii) Any *dealer* registered pursuant to section 15 of the Exchange Act acting in a riskless principal transaction on behalf of a Qualified Institutional Buyer;

Note: A registered dealer may act as agent, on a non-discretionary basis, in a transaction with a Qualified Institutional Buyer without itself having to be a Qualified Institutional Buyer.

(iv) Any investment company registered under the Investment Company Act, acting for its own account or for the accounts of other Qualified Institutional Buyers, that is part of a family of investment companies which own in the aggregate at least \$100 million in securities of issuers, other than issuers that are affiliated with the investment company or are part of such family of investment companies. *Family of investment companies* means any two or more investment companies registered under the Investment Company Act, except for a unit investment trust whose assets consist solely of shares of one or more registered investment companies, that have the same investment adviser (or, in the case of unit investment trusts, the same depositor), provided that, for purposes of this sub-clause:

(A) Each series of a series company (as defined in Rule 18f-2 under the Investment Company Act) will be deemed to be a separate investment company; and

(B) Investment companies will be deemed to have the same adviser (or depositor) if their advisers (or depositors) are majority-owned subsidiaries of the same parent, or if one investment company's adviser (or depositor) is a majority-owned subsidiary of the other investment company's adviser (or depositor);

(v) Any entity, all of the equity owners of which are Qualified Institutional Buyers, acting for its own account or the accounts of other Qualified Institutional Buyers; and

(vi) Any *bank* as defined in section 3(a)(2) of the Securities Act, any savings and loan association or other institution as referenced in section 3(a)(5)(A) of the Securities Act, or any foreign bank or savings and loan association or equivalent institution, acting for its own account or the accounts of other Qualified Institutional Buyers, that in the aggregate owns and invests on a discretionary basis at least \$100 million in securities of issuers that are not affiliated with it and that has an audited net worth of at least \$25 million as demonstrated in its latest annual financial statements, as of a date not more than 16 months preceding the date of sale under the Rule in the case of a U.S. bank or savings and loan association, and not more than 18 months preceding such date of sale for a foreign bank or savings and loan association or equivalent institution.

"Investment Advisers Act" means the Investment Advisers Act of 1940, as amended.

RATINGS OF THE NOTES

Fannie Mae on behalf of the Issuer has engaged Fitch and KBRA to rate the applicable Rated Notes on the Closing Date. It is expected that the Rated Notes will receive the ratings specified on the cover of this Offering Memorandum and on Schedule I hereto. Fannie Mae has not engaged any NRSRO to rate the Class 1B-1 Notes (or the Class 1B-1Y or Class 1B-1X Notes) on the Closing Date and has no obligation to do so in the future.

The ratings address the likelihood of the timely receipt of payments of interest to which the Holders of the Rated Notes are entitled and the ultimate payment of principal by the Maturity Date. Each engaged NRSRO will monitor its ratings using its normal surveillance procedures and, in its discretion, may change, qualify or withdraw the assigned ratings at any time. No transaction party will be responsible for monitoring any changes to the ratings on the Rated Notes. The ratings of the Rated Notes should be evaluated independently from similar ratings on other types of securities. The ratings are not a recommendation to buy, sell or hold the Rated Notes and may be subject to revision or withdrawal at any time by the engaged NRSROs.

In addition, these ratings do not address: (i) the likelihood, timing or frequency of prepayments (both voluntary and involuntary) on the Reference Obligations and their impact on interest payments or the degree to which such prepayments might differ from those originally anticipated, (ii) the possibility that a Noteholder might suffer a lower than anticipated yield, (iii) the tax treatment of the Rated Notes or the effect of taxes on the payments received, (iv) the likelihood or willingness of the parties to the respective documents to meet their contractual obligations or the likelihood or willingness of any party or court to enforce, or hold enforceable, the documents in whole or in part, (v) an assessment of the yield to maturity that investors may experience, or (vi) other non-credit risks, including, without limitation, market or liquidity risk.

The ratings take into consideration certain credit risks with respect to the Reference Obligations. However, as noted above, the ratings do not represent an assessment of the likelihood, timing or frequency of principal prepayments (both voluntary and involuntary) on the Reference Obligations, or the degree to which such prepayments might differ from those originally anticipated. In general, the ratings address credit risk and not prepayment risk. In addition, the ratings do not represent an assessment of the yields to maturity that investors may experience or the possibility that the Holders of the Interest Only RCR Notes might not fully recover their initial investments following the occurrence of Credit Events or rapid prepayments on the Reference Obligations (including both voluntary and involuntary prepayments).

As indicated in this Offering Memorandum, the Interest Only RCR Notes are only entitled to payments of interest. In the event that Holders of the Interest Only RCR Notes do not fully recover their investment as a result of (i) a high rate of Credit Events and Modification Events that result in losses being realized with respect thereto, or (ii) rapid principal prepayments on the Reference Obligations, all amounts "due" to such Holders will nevertheless have been paid, and such result is consistent with the ratings received on the Interest Only RCR Notes. For example, if the Reference Obligations were to prepay in the initial month following the Closing Date, Holders of the Interest Only RCR Notes would receive only a single month's interest and, therefore, would suffer a nearly complete loss of their investment. The Class Notional Amounts of the Interest Only RCR Notes on which interest is calculated will be reduced by the allocation under the hypothetical structure described in this Offering Memorandum of Tranche Write-down Amounts and prepayments, whether voluntary or involuntary, to the Reference Tranches and Exchangeable Notes from which their respective Class Notional Amounts are derived. The ratings do not address the timing or magnitude of reductions of such Class Notional Amounts, but only the obligation to pay interest timely on the Class Notional Amounts as so reduced from time to time. Therefore, the ratings of the Interest Only RCR Notes should be evaluated independently from similar ratings on other types of securities.

Other NRSROs that Fannie Mae has not engaged to rate the Rated Notes may issue unsolicited credit ratings on one or more classes of the Notes, relying on information they receive pursuant to Rule 17g-5 or otherwise. If any such unsolicited ratings are issued, there can be no assurance that they will not be different from the ratings assigned by the engaged NRSROs, and if lower than the engaged NRSROs' ratings, whether such unsolicited ratings will have an adverse impact on the liquidity, market value and regulatory characteristics of such Notes. Further, a determination by the SEC that either or both of the engaged NRSROs no longer qualifies as an NRSRO or is no longer qualified to rate the Rated Notes, could adversely impact the liquidity, market value and regulatory characteristics of the Rated Notes.

A security rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time for any reason. No person or entity will be obligated to provide any additional credit enhancement with respect to the Rated Notes. Any withdrawal of the ratings may have an adverse effect on the liquidity and market price of the Rated Notes. The ratings assigned to the Rated Notes do not represent any assessment of the likelihood that principal prepayments might differ from those originally anticipated or address the possibility that Holders of the Rated Notes might suffer a lower than anticipated yield. There can be no assurance that an engaged NRSRO will not lower or withdraw its ratings.

See "*Risk Factors—Investment Factors and Risks Related to the Notes—A Reduction, Withdrawal or Qualification of the Ratings on the Rated Notes, or the Issuance of an Unsolicited Rating on the Rated Notes, May Adversely Affect the Market Value of Those Notes and/or Limit an Investor's Ability to Resell Those Notes,*" and "*—The Ratings on the Rated Notes May Not Reflect All Risks*" in this Offering Memorandum.

LEGAL MATTERS

Fannie Mae's General Counsel or one of its Deputy General Counsels will render an opinion on the legality of the Notes. Certain matters with respect to the Notes will be passed upon for the Issuer by Katten Muchin Rosenman LLP and by Eversheds Sutherland (US) LLP. Certain matters with respect to the Notes will be passed upon for the Initial Purchasers by Morgan, Lewis & Bockius LLP. Certain tax matters with respect to the Notes will be passed upon for the Issuer by Hunton Andrews Kurth LLP.

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SCHEDULE I

**CONNECTICUT AVENUE SECURITIES, SERIES 2020-R01
RCR NOTES
AVAILABLE COMBINATIONS AND RECOMBINATIONS**

| Combination | Class of Exchangeable or RCR Note | Maximum Original Balance / Notional Amount (\$) | Class Coupon (%) | Expected Ratings (Fitch/KBRA) | Exchange Proportions (%)⁽¹⁾ | Class of RCR Note | Maximum Original Balance / Notional Amount (\$) | Exchange Proportions (%)⁽¹⁾ | Class Coupon (%) | Expected Ratings (Fitch/KBRA) |
|--------------------|--|--|-------------------------|--------------------------------------|---|--------------------------|--|---|-------------------------|--------------------------------------|
| 1 | 1M-2A | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 33.3333333333% | 1M-2 | \$523,509,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | 1M-2B | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 33.3333333333% | | | | | |
| | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 33.3333333333% | | | | | |
| 2 | 1M-2A | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 100.0000000000% | 1E-A1 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB+sf / BBB (sf) |
| | | | | | | 1A-I1 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB+sf / BBB (sf) |
| 3 | 1M-2A | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 100.0000000000% | 1E-A2 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB+sf / BBB (sf) |
| | | | | | | 1A-I2 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB+sf / BBB (sf) |
| 4 | 1M-2A | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 100.0000000000% | 1E-A3 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB+sf / BBB (sf) |
| | | | | | | 1A-I3 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB+sf / BBB (sf) |
| 5 | 1M-2A | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 100.0000000000% | 1E-A4 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB+sf / BBB (sf) |
| | | | | | | 1A-I4 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB+sf / BBB (sf) |
| 6 | 1M-2B | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 100.0000000000% | 1E-B1 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | | | | | | 1B-I1 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB-sf / BBB- (sf) |
| 7 | 1M-2B | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 100.0000000000% | 1E-B2 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | | | | | | 1B-I2 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB-sf / BBB- (sf) |
| 8 | 1M-2B | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 100.0000000000% | 1E-B3 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | | | | | | 1B-I3 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB-sf / BBB- (sf) |
| 9 | 1M-2B | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 100.0000000000% | 1E-B4 | \$174,503,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | | | | | | 1B-I4 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | BB-sf / BBB- (sf) |
| 10 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1E-C1 | \$174,503,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | | | | | | 1C-I1 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | Bsf / BB (sf) |
| 11 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1E-C2 | \$174,503,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | | | | | | 1C-I2 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | Bsf / BB (sf) |
| 12 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1E-C3 | \$174,503,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | | | | | | 1C-I3 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | Bsf / BB (sf) |
| 13 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1E-C4 | \$174,503,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | | | | | | 1C-I4 | \$174,503,000 ⁽²⁾ | 100.0000000000% | ___% ⁽³⁾ | Bsf / BB (sf) |
| 14 | 1E-A1 | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 50.0000000000% | 1E-D1 | \$349,006,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | 1E-B1 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 15 | 1E-A2 | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 50.0000000000% | 1E-D2 | \$349,006,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | 1E-B2 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 16 | 1E-A3 | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 50.0000000000% | 1E-D3 | \$349,006,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | 1E-B3 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |

| Combination | Class of Exchangeable or RCR Note | Maximum Original Balance / Notional Amount (\$) | Class Coupon (%) | Expected Ratings (Fitch/KBRA) | Exchange Proportions (%) ⁽¹⁾ | Class of RCR Note | Maximum Original Balance / Notional Amount (\$) | Exchange Proportions (%) ⁽¹⁾ | Class Coupon (%) | Expected Ratings (Fitch/KBRA) |
|-------------|-----------------------------------|---|---------------------|-------------------------------|---|-------------------|---|---|---------------------|-------------------------------|
| 17 | 1E-A4 | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 50.0000000000% | 1E-D4 | \$349,006,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | 1E-B4 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 18 | 1M-2A | \$174,503,000 | 1mL + ___% | BB+sf / BBB (sf) | 50.0000000000% | 1E-D5 | \$349,006,000 | 100.0000000000% | 1mL + ___% | BB-sf / BBB- (sf) |
| | 1M-2B | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 19 | 1E-B1 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | 1E-F1 | \$349,006,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | 1E-C1 | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 20 | 1E-B2 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | 1E-F2 | \$349,006,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | 1E-C2 | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 21 | 1E-B3 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | 1E-F3 | \$349,006,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | 1E-C3 | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 22 | 1E-B4 | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | 1E-F4 | \$349,006,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | 1E-C4 | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 23 | 1M-2B | \$174,503,000 | 1mL + ___% | BB-sf / BBB- (sf) | 50.0000000000% | 1E-F5 | \$349,006,000 | 100.0000000000% | 1mL + ___% | Bsf / BB (sf) |
| | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 24 | 1A-I1 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | 1-X1 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) |
| | 1B-I1 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 25 | 1A-I2 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | 1-X2 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) |
| | 1B-I2 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 26 | 1A-I3 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | 1-X3 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) |
| | 1B-I3 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 27 | 1A-I4 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | 1-X4 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) |
| | 1B-I4 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | | | | | |
| 28 | 1B-I1 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | 1-Y1 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | Bsf / BB (sf) |
| | 1C-I1 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 29 | 1B-I2 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | 1-Y2 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | Bsf / BB (sf) |
| | 1C-I2 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 30 | 1B-I3 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | 1-Y3 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | Bsf / BB (sf) |
| | 1C-I3 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 31 | 1B-I4 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB-sf / BBB- (sf) | 50.0000000000% | 1-Y4 | \$349,006,000 ⁽²⁾ | 100.0000000000% | ___% ⁽⁴⁾ | Bsf / BB (sf) |
| | 1C-I4 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | Bsf / BB (sf) | 50.0000000000% | | | | | |
| 32 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-J1 | \$174,503,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1-X1 | \$349,006,000 ⁽²⁾ | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) | 200.0000000000% | | | | | |
| 33 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-J2 | \$174,503,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1-X2 | \$349,006,000 ⁽²⁾ | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) | 200.0000000000% | | | | | |
| 34 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-J3 | \$174,503,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1-X3 | \$349,006,000 ⁽²⁾ | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) | 200.0000000000% | | | | | |
| 35 | 1M-2C | \$174,503,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-J4 | \$174,503,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1-X4 | \$349,006,000 ⁽²⁾ | ___% ⁽⁴⁾ | BB-sf / BBB- (sf) | 200.0000000000% | | | | | |
| 36 | 1E-F5 | \$349,006,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-K1 | \$349,006,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1A-I1 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | | | | | |

| Combination | Class of Exchangeable or RCR Note | Maximum Original Balance / Notional Amount (\$) | Class Coupon (%) | Expected Ratings (Fitch/KBRA) | Exchange Proportions (%) ⁽¹⁾ | Class of RCR Note | Maximum Original Balance / Notional Amount (\$) | Exchange Proportions (%) ⁽¹⁾ | Class Coupon (%) | Expected Ratings (Fitch/KBRA) |
|-------------|-----------------------------------|---|---------------------|-------------------------------|---|-------------------|---|---|------------------|-------------------------------|
| 37 | 1E-F5 | \$349,006,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-K2 | \$349,006,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1A-I2 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | | \$523,509,000 ⁽⁷⁾ | 100.0000000000% | ⁽⁸⁾ | |
| 38 | 1E-F5 | \$349,006,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-K3 | \$349,006,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1A-I3 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | | \$523,509,000 ⁽²⁾ | 100.0000000000% | ⁽⁹⁾ | |
| 39 | 1E-F5 | \$349,006,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1-K4 | \$349,006,000 ⁽⁵⁾ | 100.0000000000% | ⁽⁶⁾ | Bsf / BB (sf) |
| | 1A-I4 | \$174,503,000 ⁽²⁾ | ___% ⁽³⁾ | BB+sf / BBB (sf) | 50.0000000000% | | | | | |
| 40 | 1M-2 | \$523,509,000 | 1mL + ___% | Bsf / BB (sf) | 100.0000000000% | 1M-2Y | \$523,509,000 ⁽⁷⁾ | 100.0000000000% | ⁽⁸⁾ | Bsf / BB (sf) |
| | | | | | | 1M-2X | \$523,509,000 ⁽²⁾ | 100.0000000000% | ⁽⁹⁾ | Bsf / BB (sf) |
| 41 | 1B-1 | \$206,648,000 | 1mL + ___% | NR / NR | 100.0000000000% | 1B-1Y | \$206,648,000 ⁽⁷⁾ | 100.0000000000% | ⁽⁸⁾ | NR / NR |
| | | | | | | 1B-1X | \$206,648,000 ⁽²⁾ | 100.0000000000% | ⁽⁹⁾ | NR / NR |

- ⁽¹⁾ Exchange proportions are constant proportions of the original Class Principal Balances or Class Notional Amounts, as applicable, of the Class or Classes of Exchangeable or RCR Notes being exchanged. For any combinations that include both a Class of Notes with a Class Notional Amount and a Class of Notes with a Class Principal Balance, the exchange proportion shown relates to the aggregate original Class Principal Balance of the Class or Classes of Exchangeable or RCR Notes being received in such exchange. In accordance with the exchange proportions, Holders of Exchangeable Notes may exchange those Notes for RCR Notes, and vice versa. In addition, Holders of certain Classes of RCR Notes may exchange those Notes for other Classes of RCR Notes, and vice versa.
- ⁽²⁾ This Class is an interest only class with a Class Notional Amount as of any Payment Date equal to a specified percentage of the outstanding Class Principal Balance of the related Class of Exchangeable or RCR Note or Notes.
- ⁽³⁾ The interest payment on each of these Classes of Interest Only RCR Notes for a Payment Date represents a portion of the interest payment on the Class of Exchangeable Notes included in the related Combination for that Payment Date. For any Payment Date for which One-Month LIBOR is less than the applicable value set forth below (the "Negative LIBOR Trigger"), the interest payment on the specified Class of Interest Only RCR Notes will be calculated as the lesser of (x) the amount calculated based on the Class Coupon set forth above for that Class and (y) the excess of (i) the interest amount payable on the related Class of Exchangeable Notes for that Payment Date over (ii) the interest amount payable on the Class of floating rate RCR Notes included in the same Combination for that Payment Date.

| Class of Interest Only RCR Notes | Negative LIBOR Trigger |
|----------------------------------|------------------------|
| Class 1A-I1 Notes | ___% |
| Class 1A-I2 Notes | ___% |
| Class 1A-I3 Notes | ___% |
| Class 1A-I4 Notes | ___% |
| Class 1B-I1 Notes..... | ___% |
| Class 1B-I2 Notes..... | ___% |
| Class 1B-I3 Notes..... | ___% |
| Class 1B-I4 Notes..... | ___% |
| Class 1C-I1 Notes..... | ___% |
| Class 1C-I2 Notes..... | ___% |
| Class 1C-I3 Notes..... | ___% |
| Class 1C-I4 Notes..... | ___% |

- (4) The interest payment on each of these Classes of Interest Only RCR Notes for a Payment Date represents a portion of the interest payments on the Classes of RCR Notes included in the related Combination for that Payment Date. For any Payment Date for which One-Month LIBOR is less than the applicable Negative LIBOR Trigger set forth below, the interest payment on the specified Class of Interest Only RCR Notes will be calculated as the lesser of (x) the amount calculated based on the Class Coupon set forth above for that Class and (y) the aggregate of the interest amounts payable on the Classes of RCR Notes included in the same Combination that were exchanged for the specified Class of Interest Only RCR Notes for that Payment Date.

| <u>Class of Interest Only RCR Notes</u> | <u>Negative LIBOR Trigger</u> |
|---|-----------------------------------|
| Class 1-X1 Notes | - ___% |
| Class 1-X2 Notes | - ___% |
| Class 1-X3 Notes | - ___% |
| Class 1-X4 Notes | - ___% |
| Class 1-Y1 Notes | - ___% |
| Class 1-Y2 Notes | - ___% |
| Class 1-Y3 Notes | - ___% |
| Class 1-Y4 Notes | - ___% |

- (5) This Class has a Class Principal Balance as of any Payment Date equal to a specified percentage of the outstanding Class Principal Balance of the related Class of Exchangeable or RCR Notes that has a Class Principal Balance; provided, however that if the Class Principal Balance of the related Class of Exchangeable or RCR Notes that has a Class Principal Balance has been reduced to zero and the Class Notional Amount of the related Class of Exchangeable or RCR Notes with a Class Notional Amount is greater than zero, then this Class will no longer have a Class Principal Balance.
- (6) The interest payment on each of these Classes of RCR Notes for a Payment Date represents the sum of the interest payments on the Classes of Exchangeable and RCR Notes included in the related Combination for that Payment Date. The Class Coupon for each of these Classes of RCR Notes with respect to any Payment Date will be a fraction, expressed as a per annum rate, equal to (i) the aggregate interest amount payable on such Payment Date in respect of the Classes of Notes included in the applicable Combination and exchanged for such Class of RCR Notes, divided by (ii) the Class Principal Balance of such Class of RCR Notes immediately prior to such Payment Date, multiplied by (iii) a fraction, the numerator of which is 360 and the denominator of which is the actual number of days in the related Note Accrual Period; provided, that on any Payment Date following the reduction of the Class Principal Balance of such Class of RCR Notes to zero, the interest entitlement of such Class of RCR Notes will be equal to the interest accrued on the remaining Class of Interest Only RCR Notes included in the applicable Combination that was exchanged for such Class of RCR Notes.
- (7) This Class has an outstanding Class Principal Amount as of any Payment Date equal to the outstanding Class Principal Balance of the related Class of Exchangeable Notes or RCR Notes.
- (8) The interest payment on this Class of RCR Notes for a Payment Date represents the portion of such interest that is received in respect of the REMIC regular interest component of the related Class of Exchangeable Notes or RCR Notes.
- (9) The interest payment on this Class of Interest Only RCR Notes for a Payment Date represents the portion of such interest attributable to a notional principal contract and does not constitute interest in respect of the REMIC regular interest component of the related Class of Exchangeable Notes or RCR Notes.

Exchanges

Any exchange of Classes within a Combination is permitted, subject to the following constraints:

- The Classes must be exchanged in the applicable "exchange proportions" shown above. As described below, these are based on the original Class Principal Balances (or original Class Notional Amounts, if applicable) of the Exchangeable or RCR Notes, as applicable.
- The aggregate Class Principal Balance (rounded to whole dollars) of the Notes received in the exchange, immediately after the exchange, must equal that of the Notes surrendered for exchange immediately before the exchange (for this purpose, the Class Notional Amount of any Interest Only RCR Note always equals \$0).
- The aggregate "Annual Interest Amount" (rounded to whole dollars) of the Notes received in the exchange must equal that of the Notes surrendered for exchange. The "**Annual Interest Amount**" for any Note equals its outstanding Class Principal Balance or Class Notional Amount multiplied by its Class Coupon. The Annual Interest Amount for the Classes received and the Classes surrendered must be equal at all levels of LIBOR.

The "exchange proportions" are based on the original, rather than on the outstanding, Class Principal Balance or Class Notional Amount of the Classes.

Procedures and Fees

The Exchangeable Notes may be exchanged, in whole or in part, for RCR Notes, and vice versa, at any time on or after the Initial Exchange Date; *provided*, that no such exchange will occur on any Payment Date or Record Date. The procedures for exchanges and the obligations of Fannie Mae and the Exchange Administrator are described in the Indenture. See "*The Agreements — The Indenture.*"

Notice

Any Holder wishing to exchange Notes must notify the Exchange Administrator by email at ctsspgexchanges@wellsfargo.com no later than two Business Days before the proposed exchange date. The exchange date with respect to any exchange can be any Business Day on or after the Initial Exchange Date other than a Record Date or a Payment Date. A notice becomes irrevocable two Business Days before the respective exchange date.

Fee

In connection with each exchange, the Holder must pay the Exchange Administrator a fee equal to \$5,000 for each exchange request and such fee must be received by the Exchange Administrator no later than one Business Day prior to the exchange date or such exchange will not be effected. In addition, any Holder wishing to effect such an exchange must pay any other expenses related to such exchange, including any fees charged by DTC.

Payment

The Indenture Trustee will make the first distribution on any Exchangeable Note or RCR Note received by a Holder in an exchange transaction on the Payment Date related to the next Record Date following the exchange.

Closing Date Combinations

Notwithstanding the foregoing, an investor that would otherwise become a Holder of Class 1M-2 or Class 1B-1 Notes on the Closing Date may specify, no later than 2:00 P.M. (New York City time) on the third Business Day prior to the Closing Date, any permissible combination of proportionate interests in other related RCR Notes or Exchangeable Notes for receipt by such investor on the Closing Date, in which case any exchange procedures and fees otherwise applicable to such exchange will be waived.

Appendix A
The Reference Pool as of the Cut-off Date of November 30, 2019

| <i>Product Type of the Mortgage Loans</i> | | | | | | | |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Product Type | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| Fixed Rate | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>Unpaid Principal Balances as of the Origination Date</i> | | | | | | | |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Range of Unpaid Principal Balance (\$) | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| 0.01 - 25,000.00 | 23 | 469,112 | * | 4.778 | 737 | 76.80 | 77.57 |
| 25,000.01 - 50,000.00 | 494 | 20,561,210 | 0.07 | 4.960 | 742 | 75.28 | 75.49 |
| 50,000.01 - 75,000.00 | 1,699 | 108,916,742 | 0.38 | 4.757 | 740 | 75.66 | 75.92 |
| 75,000.01 - 100,000.00 | 3,569 | 319,264,364 | 1.10 | 4.625 | 743 | 74.83 | 75.01 |
| 100,000.01 - 125,000.00 | 5,505 | 622,720,888 | 2.15 | 4.577 | 743 | 75.21 | 75.44 |
| 125,000.01 - 150,000.00 | 6,867 | 941,350,686 | 3.25 | 4.513 | 744 | 75.11 | 75.31 |
| 150,000.01 - 200,000.00 | 15,092 | 2,641,426,432 | 9.11 | 4.404 | 746 | 75.26 | 75.40 |
| 200,000.01 - 250,000.00 | 16,310 | 3,654,318,471 | 12.60 | 4.316 | 748 | 75.63 | 75.78 |
| 250,000.01 - 300,000.00 | 15,554 | 4,238,473,742 | 14.61 | 4.271 | 750 | 75.83 | 75.99 |
| 300,000.01 - 350,000.00 | 11,651 | 3,744,327,337 | 12.91 | 4.231 | 751 | 75.84 | 76.02 |
| 350,000.01 - 400,000.00 | 9,376 | 3,478,916,124 | 11.99 | 4.199 | 752 | 75.79 | 75.96 |
| 400,000.01 - 450,000.00 | 7,400 | 3,123,522,970 | 10.77 | 4.178 | 753 | 75.63 | 76.01 |
| 450,000.01 - 500,000.00 | 7,027 | 3,288,735,634 | 11.34 | 4.201 | 751 | 74.71 | 76.26 |
| 500,000.01 - 550,000.00 | 1,376 | 718,365,212 | 2.48 | 4.279 | 753 | 75.09 | 75.52 |
| 550,000.01 - 600,000.00 | 1,219 | 695,149,600 | 2.40 | 4.297 | 752 | 74.77 | 75.32 |
| 600,000.01 - 650,000.00 | 854 | 529,195,750 | 1.82 | 4.269 | 753 | 74.87 | 75.38 |
| 650,000.01 - 700,000.00 | 717 | 478,892,786 | 1.65 | 4.282 | 751 | 74.80 | 75.98 |
| 700,000.01 - 750,000.00 | 479 | 342,187,702 | 1.18 | 4.291 | 752 | 73.83 | 76.32 |
| 750,000.01 - 800,000.00 | 11 | 8,474,143 | 0.03 | 4.713 | 756 | 73.40 | 73.40 |
| 800,000.01 - 850,000.00 | 10 | 8,241,972 | 0.03 | 4.888 | 748 | 71.10 | 71.10 |
| 850,000.01 - 900,000.00 | 16 | 14,012,634 | 0.05 | 4.718 | 758 | 74.06 | 74.06 |
| 900,000.01 or greater | 25 | 25,827,343 | 0.09 | 4.819 | 742 | 71.49 | 71.49 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Average (\$) | 278,612.80 | | | | | | |

* Indicates a number that is greater than 0.000% but less than 0.005%.

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

Unpaid Principal Balances as of the Cut-off Date

| Range of Unpaid Principal Balance (\$) | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| 0.01 - 25,000.00 | 70 | 1,208,943 | * | 4.566 | 765 | 76.75 | 77.05 |
| 25,000.01 - 50,000.00 | 571 | 23,526,579 | 0.08 | 4.868 | 748 | 75.41 | 75.59 |
| 50,000.01 - 75,000.00 | 1,815 | 116,368,089 | 0.40 | 4.733 | 742 | 75.70 | 75.94 |
| 75,000.01 - 100,000.00 | 3,713 | 333,381,772 | 1.15 | 4.614 | 744 | 74.88 | 75.06 |
| 100,000.01 - 125,000.00 | 5,627 | 639,640,667 | 2.21 | 4.568 | 744 | 75.28 | 75.50 |
| 125,000.01 - 150,000.00 | 6,897 | 951,673,232 | 3.28 | 4.510 | 744 | 75.09 | 75.28 |
| 150,000.01 - 200,000.00 | 15,180 | 2,673,175,672 | 9.22 | 4.401 | 746 | 75.29 | 75.43 |
| 200,000.01 - 250,000.00 | 16,399 | 3,702,588,869 | 12.77 | 4.315 | 748 | 75.63 | 75.78 |
| 250,000.01 - 300,000.00 | 15,421 | 4,237,617,168 | 14.61 | 4.270 | 750 | 75.83 | 75.99 |
| 300,000.01 - 350,000.00 | 11,664 | 3,782,512,164 | 13.04 | 4.229 | 751 | 75.86 | 76.04 |
| 350,000.01 - 400,000.00 | 9,168 | 3,434,440,586 | 11.84 | 4.198 | 752 | 75.73 | 75.91 |
| 400,000.01 - 450,000.00 | 7,484 | 3,186,892,927 | 10.99 | 4.178 | 753 | 75.65 | 76.05 |
| 450,000.01 - 500,000.00 | 6,628 | 3,130,023,427 | 10.79 | 4.205 | 750 | 74.65 | 76.24 |
| 500,000.01 - 550,000.00 | 1,417 | 743,942,000 | 2.57 | 4.283 | 753 | 75.18 | 75.66 |
| 550,000.01 - 600,000.00 | 1,164 | 669,466,693 | 2.31 | 4.294 | 752 | 74.75 | 75.25 |
| 600,000.01 - 650,000.00 | 858 | 535,507,616 | 1.85 | 4.271 | 753 | 74.86 | 75.38 |
| 650,000.01 - 700,000.00 | 687 | 462,362,731 | 1.59 | 4.282 | 750 | 74.84 | 76.09 |
| 700,000.01 - 750,000.00 | 450 | 323,214,653 | 1.11 | 4.295 | 751 | 73.62 | 76.13 |
| 750,000.01 - 800,000.00 | 12 | 9,305,002 | 0.03 | 4.644 | 763 | 73.10 | 73.10 |
| 800,000.01 - 850,000.00 | 9 | 7,510,983 | 0.03 | 4.955 | 740 | 70.76 | 70.76 |
| 850,000.01 - 900,000.00 | 17 | 14,952,091 | 0.05 | 4.735 | 756 | 73.92 | 73.92 |
| 900,000.01 or greater | 23 | 24,038,991 | 0.08 | 4.810 | 743 | 71.67 | 71.67 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Average (\$) | 275,503.46 | | | | | | |

* Indicates a number that is greater than 0.000% but less than 0.005%.

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

Gross Mortgage Rates of the Mortgage Loans as of the Cut-off Date

| Range of Gross Mortgage Rates (%) | Number of Mortgage Loans | Unpaid Principal Balance (\$) ⁽¹⁾ | Unpaid Principal Balance (%) ⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|--|---------------------------------|---|--|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| 2.751 - 3.000 | 5 | 1,600,817 | 0.01 | 2.990 | 771 | 74.54 | 74.54 |
| 3.001 - 3.250 | 158 | 50,062,931 | 0.17 | 3.239 | 772 | 73.95 | 74.15 |
| 3.251 - 3.500 | 2,182 | 710,086,081 | 2.45 | 3.469 | 771 | 74.13 | 74.35 |
| 3.501 - 3.750 | 7,091 | 2,179,254,981 | 7.51 | 3.701 | 771 | 74.73 | 74.90 |
| 3.751 - 4.000 | 28,203 | 8,591,091,602 | 29.62 | 3.952 | 765 | 75.15 | 75.42 |
| 4.001 - 4.250 | 18,276 | 5,099,363,796 | 17.58 | 4.185 | 759 | 75.85 | 76.17 |
| 4.251 - 4.500 | 23,524 | 6,408,856,097 | 22.10 | 4.434 | 744 | 75.87 | 76.42 |
| 4.501 - 4.750 | 8,400 | 2,052,426,068 | 7.08 | 4.664 | 729 | 75.46 | 76.18 |
| 4.751 - 5.000 | 9,259 | 2,167,227,605 | 7.47 | 4.922 | 716 | 75.36 | 75.95 |
| 5.001 - 5.250 | 3,260 | 709,710,391 | 2.45 | 5.185 | 711 | 75.58 | 76.09 |
| 5.251 - 5.500 | 2,495 | 537,473,939 | 1.85 | 5.430 | 709 | 75.60 | 76.09 |
| 5.501 - 5.750 | 1,208 | 260,487,729 | 0.90 | 5.677 | 701 | 75.81 | 76.94 |
| 5.751 - 6.000 | 903 | 174,062,844 | 0.60 | 5.911 | 686 | 75.90 | 76.85 |
| 6.001 - 6.250 | 185 | 36,676,147 | 0.13 | 6.163 | 675 | 76.50 | 77.19 |
| 6.251 - 6.500 | 96 | 19,873,066 | 0.07 | 6.417 | 677 | 77.22 | 77.85 |
| 6.501 - 6.750 | 29 | 5,096,760 | 0.02 | 6.641 | 653 | 77.14 | 77.14 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average (%) | 4.280 | | | | | | |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

Seasoning of the Mortgage Loans as of the Cut-off Date

| Seasoning (months) | Number of Mortgage Loans | Unpaid Principal Balance (\$) ⁽¹⁾ | Unpaid Principal Balance (%) ⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|----------------------------------|--------------------------|--|---|------------------------|----------------------------|-----------------------------|------------------------------|
| 2 | 12,344 | 3,469,148,518 | 11.96 | 4.068 | 753 | 75.31 | 75.65 |
| 3 | 37,079 | 10,226,538,570 | 35.26 | 4.157 | 751 | 75.23 | 75.63 |
| 4 | 37,767 | 10,289,883,103 | 35.48 | 4.361 | 749 | 75.55 | 75.95 |
| 5 | 15,293 | 4,280,837,217 | 14.76 | 4.474 | 748 | 75.80 | 76.31 |
| 6 | 1,897 | 527,814,455 | 1.82 | 4.612 | 742 | 75.48 | 76.11 |
| 7 | 385 | 93,383,349 | 0.32 | 4.962 | 735 | 74.96 | 75.36 |
| 8 | 160 | 36,969,859 | 0.13 | 4.893 | 740 | 75.01 | 75.45 |
| 9 | 104 | 21,816,475 | 0.08 | 5.188 | 725 | 75.78 | 76.30 |
| 10 | 71 | 13,822,587 | 0.05 | 5.238 | 748 | 75.76 | 75.76 |
| 11 | 66 | 14,586,544 | 0.05 | 5.173 | 747 | 75.26 | 76.48 |
| 12 | 46 | 11,971,326 | 0.04 | 5.071 | 748 | 74.84 | 75.62 |
| 13 | 33 | 7,705,962 | 0.03 | 4.908 | 760 | 75.82 | 76.66 |
| 14 | 20 | 5,427,745 | 0.02 | 4.975 | 739 | 76.01 | 77.15 |
| 15 | 3 | 1,032,614 | * | 4.621 | 759 | 73.91 | 73.91 |
| 16 | 4 | 1,430,915 | * | 4.873 | 727 | 75.56 | 75.56 |
| 17 | 2 | 981,616 | * | 4.263 | 741 | 70.04 | 70.04 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average (months) | 3.63 | | | | | | |

* Indicates a number that is greater than 0.000% but less than 0.005%.

Original Loan-to-Value Ratio of the Mortgage Loans at Origination

| Range of Original LTV (%) | Number of Mortgage Loans | Unpaid Principal Balance (\$) ⁽¹⁾ | Unpaid Principal Balance (%) ⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|-----------------------------|--------------------------|--|---|------------------------|----------------------------|-----------------------------|------------------------------|
| 60.01 - 65.00 | 7,931 | 2,125,957,029 | 7.33 | 4.212 | 749 | 63.40 | 64.33 |
| 65.01 - 70.00 | 15,349 | 4,329,939,579 | 14.93 | 4.259 | 742 | 68.62 | 69.30 |
| 70.01 - 75.00 | 24,954 | 6,879,039,675 | 23.72 | 4.309 | 753 | 74.05 | 74.56 |
| 75.01 - 80.00 | 57,040 | 15,668,414,572 | 54.02 | 4.282 | 751 | 79.58 | 79.80 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average (%) | 75.44 | | | | | | |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

Combined Loan-to-Value Ratio of the Mortgage Loans at Origination

| Range of Combined LTV (%) | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|----------------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| 60.01 - 65.00 | 7,643 | 2,013,536,353 | 6.94 | 4.208 | 750 | 63.40 | 63.40 |
| 65.01 - 70.00 | 14,893 | 4,155,560,013 | 14.33 | 4.252 | 743 | 68.60 | 68.62 |
| 70.01 - 75.00 | 24,357 | 6,649,766,174 | 22.93 | 4.304 | 753 | 74.00 | 74.05 |
| 75.01 - 80.00 | 56,542 | 15,503,003,594 | 53.45 | 4.277 | 751 | 79.48 | 79.57 |
| 80.01 - 85.00 | 333 | 119,049,472 | 0.41 | 4.388 | 740 | 73.60 | 83.76 |
| 85.01 - 90.00 | 993 | 387,506,990 | 1.34 | 4.477 | 742 | 74.81 | 89.46 |
| 90.01 - 95.00 | 460 | 162,822,599 | 0.56 | 4.587 | 742 | 75.92 | 94.58 |
| 95.01 - 97.00 | 53 | 12,105,658 | 0.04 | 4.480 | 731 | 79.11 | 96.91 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average (%) | 75.86 | | | | | | |

Credit Scores of the Mortgage Loans at Origination

| Credit Scores at Origination | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|-------------------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| 620 | 78 | 20,520,502 | 0.07 | 5.018 | 620 | 74.58 | 74.80 |
| 621 - 640 | 1,781 | 426,480,734 | 1.47 | 4.963 | 631 | 74.39 | 74.67 |
| 641 - 660 | 2,896 | 707,454,659 | 2.44 | 4.886 | 651 | 74.89 | 75.15 |
| 661 - 680 | 4,680 | 1,148,057,667 | 3.96 | 4.769 | 671 | 74.51 | 74.89 |
| 681 - 700 | 7,914 | 2,091,288,660 | 7.21 | 4.553 | 691 | 74.95 | 75.57 |
| 701 - 720 | 10,527 | 2,876,861,343 | 9.92 | 4.435 | 711 | 75.62 | 76.19 |
| 721 - 740 | 12,167 | 3,397,053,817 | 11.71 | 4.295 | 730 | 75.60 | 76.25 |
| 741 - 760 | 15,207 | 4,294,887,512 | 14.81 | 4.196 | 751 | 75.66 | 76.09 |
| 761 - 780 | 18,470 | 5,275,374,809 | 18.19 | 4.156 | 771 | 75.53 | 75.94 |
| 781 - 800 | 20,360 | 5,802,576,810 | 20.01 | 4.126 | 790 | 75.56 | 75.82 |
| 801 - 820 | 11,047 | 2,927,832,825 | 10.09 | 4.125 | 807 | 75.42 | 75.58 |
| 821 - 840 | 147 | 34,961,518 | 0.12 | 4.134 | 823 | 74.87 | 74.87 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average | 750 | | | | | | |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

Debt-to-Income Ratio of the Mortgage Loans at Origination*

| Range of Debt-to-Income Ratios (%) | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| 0 - 20 | 7,864 | 1,979,387,007 | 6.82 | 4.162 | 769 | 75.28 | 75.45 |
| 21 - 25 | 9,902 | 2,597,359,803 | 8.96 | 4.165 | 763 | 75.47 | 75.69 |
| 26 - 30 | 13,735 | 3,684,022,103 | 12.70 | 4.206 | 758 | 75.54 | 75.86 |
| 31 - 35 | 16,118 | 4,433,554,756 | 15.29 | 4.253 | 752 | 75.56 | 75.97 |
| 36 - 40 | 18,322 | 5,086,376,748 | 17.54 | 4.297 | 747 | 75.49 | 76.03 |
| 41 - 45 | 21,952 | 6,169,713,703 | 21.27 | 4.362 | 741 | 75.32 | 75.92 |
| 46 - 50 | 17,381 | 5,052,936,734 | 17.42 | 4.345 | 741 | 75.43 | 75.74 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average (%) | 36 | | | | | | |

* Debt-to-Income Ratios are shown rounded to the nearest integer.

Occupancy Status of the Mortgage Loans as of the Cut-off Date

| Occupancy Status | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|-------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Owner-Occupied | 90,820 | 25,834,765,416 | 89.08 | 4.238 | 749 | 75.50 | 75.96 |
| Investment Property | 8,907 | 1,756,383,294 | 6.06 | 4.950 | 759 | 73.79 | 73.80 |
| Second Home | 5,547 | 1,412,202,145 | 4.87 | 4.207 | 766 | 76.42 | 76.60 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

Loan Purpose of the Mortgage Loans

| Loan Purpose | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|-----------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Purchase | 54,726 | 14,414,843,852 | 49.70 | 4.247 | 756 | 76.99 | 77.50 |
| No Cash-Out Refinance | 23,897 | 7,573,833,965 | 26.11 | 4.109 | 752 | 74.15 | 74.73 |
| Cash-Out Refinance | 26,651 | 7,014,673,038 | 24.19 | 4.533 | 735 | 73.66 | 73.70 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

| <i>Property Type of the Mortgage Loans as of the Cut-off Date</i> | | | | | | | |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Property Type | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| 1-4 Family Dwelling Unit | 63,838 | 17,466,233,186 | 60.22 | 4.294 | 748 | 75.23 | 75.58 |
| PUD | 30,012 | 8,748,521,518 | 30.16 | 4.243 | 752 | 75.92 | 76.49 |
| Condo | 10,166 | 2,543,547,765 | 8.77 | 4.294 | 759 | 75.17 | 75.50 |
| Manufactured Housing | 820 | 137,199,588 | 0.47 | 4.630 | 741 | 76.59 | 76.66 |
| Co-op | 438 | 107,848,798 | 0.37 | 4.217 | 764 | 75.93 | 75.94 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

Geographic Concentration of the Mortgage Loans

| State or Territory | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|---------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| California | 15,931 | 6,190,340,474 | 21.34 | 4.276 | 746 | 74.08 | 74.52 |
| Texas | 7,523 | 1,867,330,630 | 6.44 | 4.370 | 746 | 76.26 | 77.10 |
| Colorado | 4,919 | 1,605,742,878 | 5.54 | 4.250 | 754 | 74.97 | 75.41 |
| Florida | 6,832 | 1,574,638,518 | 5.43 | 4.393 | 746 | 76.17 | 76.62 |
| Washington | 4,328 | 1,454,803,012 | 5.02 | 4.281 | 751 | 75.11 | 75.41 |
| Arizona | 4,139 | 1,029,477,202 | 3.55 | 4.324 | 750 | 75.52 | 75.86 |
| New York | 3,024 | 975,505,048 | 3.36 | 4.290 | 747 | 75.29 | 75.37 |
| Massachusetts | 2,548 | 857,520,618 | 2.96 | 4.240 | 750 | 75.14 | 75.28 |
| Illinois | 3,651 | 847,905,601 | 2.92 | 4.269 | 756 | 76.18 | 76.40 |
| New Jersey | 2,472 | 758,447,008 | 2.62 | 4.268 | 749 | 75.71 | 75.91 |
| Michigan | 3,555 | 739,594,847 | 2.55 | 4.296 | 753 | 76.21 | 76.42 |
| North Carolina | 3,067 | 729,614,580 | 2.52 | 4.241 | 755 | 76.15 | 76.55 |
| Georgia | 2,915 | 713,599,971 | 2.46 | 4.297 | 749 | 76.10 | 76.73 |
| Utah | 2,467 | 712,319,587 | 2.46 | 4.179 | 752 | 75.29 | 75.54 |
| Virginia | 2,247 | 667,106,275 | 2.30 | 4.231 | 756 | 75.83 | 76.50 |
| Oregon | 2,110 | 631,893,839 | 2.18 | 4.288 | 752 | 75.18 | 75.66 |
| Pennsylvania | 2,680 | 614,784,138 | 2.12 | 4.232 | 755 | 76.69 | 77.12 |
| Wisconsin | 2,518 | 551,752,750 | 1.90 | 4.151 | 760 | 76.04 | 76.39 |
| Minnesota | 2,277 | 548,060,359 | 1.89 | 4.210 | 755 | 76.44 | 76.95 |
| Nevada | 1,792 | 478,578,324 | 1.65 | 4.398 | 743 | 75.49 | 75.78 |
| Ohio | 2,517 | 465,591,985 | 1.61 | 4.289 | 753 | 76.52 | 76.81 |
| Tennessee | 1,966 | 454,062,850 | 1.57 | 4.337 | 750 | 75.91 | 76.39 |
| Missouri | 2,080 | 424,954,394 | 1.47 | 4.254 | 755 | 76.36 | 76.84 |
| Maryland | 1,350 | 386,697,279 | 1.33 | 4.232 | 752 | 75.40 | 76.14 |
| Indiana | 1,940 | 373,002,704 | 1.29 | 4.277 | 754 | 76.47 | 76.75 |
| South Carolina | 1,636 | 361,698,246 | 1.25 | 4.289 | 753 | 76.12 | 76.45 |
| Idaho | 1,080 | 270,891,151 | 0.93 | 4.298 | 745 | 75.49 | 75.80 |
| Alabama | 988 | 212,903,666 | 0.73 | 4.275 | 753 | 76.29 | 76.67 |
| Louisiana | 876 | 199,927,483 | 0.69 | 4.250 | 751 | 75.88 | 76.09 |
| Connecticut | 786 | 197,398,604 | 0.68 | 4.297 | 751 | 76.74 | 77.14 |
| Iowa | 972 | 197,131,940 | 0.68 | 3.971 | 759 | 76.19 | 76.85 |
| Hawaii | 406 | 190,427,437 | 0.66 | 4.134 | 753 | 74.63 | 75.43 |
| Kentucky | 894 | 184,042,686 | 0.63 | 4.289 | 752 | 76.45 | 76.80 |
| Oklahoma | 805 | 163,676,143 | 0.56 | 4.282 | 757 | 76.37 | 76.95 |
| Nebraska | 723 | 142,861,548 | 0.49 | 4.212 | 760 | 76.41 | 76.73 |
| Montana | 494 | 127,651,765 | 0.44 | 4.302 | 751 | 75.69 | 75.93 |
| New Hampshire | 482 | 127,209,500 | 0.44 | 4.253 | 750 | 76.13 | 76.35 |
| Kansas | 561 | 123,204,620 | 0.42 | 4.246 | 755 | 76.64 | 76.78 |
| New Mexico | 478 | 104,621,654 | 0.36 | 4.349 | 753 | 75.90 | 76.25 |
| Rhode Island | 358 | 97,020,581 | 0.33 | 4.260 | 747 | 76.08 | 76.24 |
| Maine | 346 | 81,924,326 | 0.28 | 4.250 | 755 | 75.45 | 75.54 |
| Arkansas | 429 | 80,521,576 | 0.28 | 4.359 | 745 | 76.31 | 76.93 |
| Delaware | 312 | 78,074,230 | 0.27 | 4.268 | 756 | 75.52 | 75.98 |
| Mississippi | 396 | 75,640,646 | 0.26 | 4.377 | 747 | 76.46 | 76.67 |
| District of Columbia | 152 | 62,674,270 | 0.22 | 4.218 | 756 | 74.49 | 75.51 |
| South Dakota | 247 | 50,647,374 | 0.17 | 4.166 | 749 | 75.75 | 76.11 |
| Wyoming | 198 | 47,252,934 | 0.16 | 4.181 | 748 | 75.79 | 75.94 |
| North Dakota | 177 | 42,706,764 | 0.15 | 4.151 | 761 | 76.01 | 76.35 |
| Alaska | 146 | 40,957,851 | 0.14 | 4.364 | 754 | 75.92 | 75.92 |
| Vermont | 148 | 32,678,222 | 0.11 | 4.226 | 753 | 76.34 | 76.57 |
| West Virginia | 173 | 31,393,282 | 0.11 | 4.327 | 751 | 77.33 | 77.40 |
| Puerto Rico | 155 | 23,211,808 | 0.08 | 4.439 | 744 | 75.32 | 75.32 |
| Virgin Islands | 5 | 1,143,162 | * | 5.163 | 728 | 78.17 | 78.17 |
| Guam | 3 | 532,514 | * | 5.226 | 773 | 76.23 | 76.23 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

*Indicates a number that is greater than 0.000% but less than 0.005%.

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

| <i>Geographic Concentration of the Mortgage Loans (Top 10 Metropolitan Statistical Areas ("MSA"))*</i> | | | | | | | |
|--|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Top 10 MSAs | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| Los Angeles-Long Beach-Anaheim, CA | 4,688 | 2,087,615,519 | 7.20 | 4.270 | 746 | 73.75 | 74.10 |
| Non-Metro | 8,628 | 1,805,859,307 | 6.23 | 4.298 | 751 | 75.88 | 76.15 |
| New York-Newark-Jersey City, NY-NJ-PA | 4,017 | 1,419,778,955 | 4.90 | 4.284 | 747 | 75.19 | 75.33 |
| Denver-Aurora-Lakewood, CO | 2,916 | 999,692,345 | 3.45 | 4.246 | 753 | 74.85 | 75.32 |
| Seattle-Tacoma-Bellevue, WA | 2,299 | 891,652,150 | 3.07 | 4.254 | 751 | 74.86 | 75.18 |
| Phoenix-Mesa-Chandler, AZ | 3,259 | 838,141,867 | 2.89 | 4.308 | 749 | 75.52 | 75.86 |
| Riverside-San Bernardino-Ontario, CA | 2,571 | 816,609,657 | 2.82 | 4.296 | 739 | 74.70 | 75.15 |
| Chicago-Naperville-Elgin, IL-IN-WI | 2,940 | 747,885,672 | 2.58 | 4.302 | 756 | 76.02 | 76.19 |
| Dallas-Fort Worth-Arlington, TX | 2,724 | 713,240,584 | 2.46 | 4.367 | 744 | 76.25 | 77.05 |
| Boston-Cambridge-Newton, MA-NH | 1,825 | 660,469,626 | 2.28 | 4.247 | 750 | 75.06 | 75.18 |
| Other | 69,407 | 18,022,405,173 | 62.14 | 4.277 | 751 | 75.67 | 76.13 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

* Definitions of Metropolitan Statistical Areas (MSA) are updated periodically by the United States Office of Management and Budget. Fannie Mae seeks to update its loan level disclosure from time to time to reflect corresponding changes.

| <i>Geographic Concentration of the Mortgage Loans (Top 10 Zip Codes)</i> | | | | | | | |
|--|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Top 10 Zip Codes | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| 80134 | 155 | 58,915,194 | 0.20 | 4.161 | 754 | 75.31 | 75.72 |
| 80016 | 109 | 45,497,057 | 0.16 | 4.200 | 754 | 74.84 | 75.49 |
| 92336 | 105 | 37,259,165 | 0.13 | 4.269 | 734 | 75.17 | 75.55 |
| 85383 | 104 | 32,916,752 | 0.11 | 4.240 | 751 | 76.60 | 77.13 |
| 95747 | 84 | 31,911,613 | 0.11 | 4.130 | 757 | 74.20 | 74.58 |
| 94513 | 68 | 31,095,258 | 0.11 | 4.314 | 734 | 73.58 | 73.96 |
| 85142 | 103 | 30,774,624 | 0.11 | 4.312 | 753 | 75.88 | 75.88 |
| 32163 | 122 | 30,422,460 | 0.10 | 4.168 | 769 | 76.53 | 76.53 |
| 95630 | 75 | 30,334,434 | 0.10 | 4.174 | 753 | 74.72 | 74.72 |
| 80015 | 93 | 29,676,633 | 0.10 | 4.277 | 745 | 74.86 | 75.14 |
| Other | 104,256 | 28,644,547,663 | 98.76 | 4.281 | 750 | 75.45 | 75.86 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

| <i>Original Term to Maturity of the Mortgage Loans</i> | | | | | | | |
|--|---------------------------------|---|--|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Original Term to Maturity (months) | Number of Mortgage Loans | Unpaid Principal Balance (\$) ⁽¹⁾ | Unpaid Principal Balance (%) ⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| 241 - 259 | 8 | 1,387,549 | * | 4.375 | 730 | 68.96 | 68.96 |
| 260 - 279 | 50 | 13,151,709 | 0.05 | 4.144 | 749 | 72.88 | 72.88 |
| 280 - 299 | 30 | 7,696,905 | 0.03 | 4.149 | 746 | 73.83 | 74.27 |
| 300 - 319 | 897 | 235,401,312 | 0.81 | 4.193 | 750 | 73.63 | 73.80 |
| 320 - 339 | 240 | 66,167,362 | 0.23 | 4.118 | 751 | 73.78 | 74.04 |
| 340 - 359 | 172 | 53,639,791 | 0.18 | 4.088 | 760 | 75.21 | 75.36 |
| 360 | 103,877 | 28,625,906,226 | 98.70 | 4.281 | 750 | 75.47 | 75.88 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average (months) | 359 | | | | | | |

*Indicates a number that is greater than 0.000% but less than 0.005%.

| <i>Remaining Term to Maturity of the Mortgage Loans as of the Cut-off Date</i> | | | | | | | |
|--|---------------------------------|---|--|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Remaining Term to Maturity (months) | Number of Mortgage Loans | Unpaid Principal Balance (\$) ⁽¹⁾ | Unpaid Principal Balance (%) ⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| 236 - 240 | 2 | 331,240 | * | 4.238 | 757 | 74.19 | 74.19 |
| 241 - 250 | 6 | 1,056,309 | * | 4.418 | 722 | 67.32 | 67.32 |
| 251 - 260 | 10 | 2,249,542 | 0.01 | 4.127 | 760 | 73.99 | 73.99 |
| 261 - 270 | 6 | 1,787,738 | 0.01 | 3.932 | 765 | 75.74 | 75.74 |
| 271 - 280 | 34 | 9,114,429 | 0.03 | 4.190 | 743 | 72.04 | 72.04 |
| 281 - 290 | 27 | 7,083,307 | 0.02 | 4.177 | 745 | 73.56 | 74.04 |
| 291 - 300 | 841 | 220,793,466 | 0.76 | 4.199 | 750 | 73.63 | 73.80 |
| 301 - 357 | 92,207 | 25,350,819,992 | 87.41 | 4.309 | 750 | 75.48 | 75.90 |
| 358 or greater | 12,141 | 3,410,114,831 | 11.76 | 4.070 | 753 | 75.34 | 75.68 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Weighted Average (months) | 356 | | | | | | |

* Indicates a number that is greater than 0.000% but less than 0.005%.

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

| <i>Seller of the Mortgage Loans</i> | | | | | | | |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Seller | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| Wells Fargo Bank, N.A. | 16,134 | 4,444,049,221 | 15.32 | 4.361 | 749 | 76.21 | 76.67 |
| Quicken Loans Inc. | 10,062 | 2,858,486,026 | 9.86 | 4.321 | 741 | 74.37 | 74.58 |
| United Shore Financial Services, LLC d/b/a United | 6,280 | 2,080,705,398 | 7.17 | 4.146 | 756 | 74.77 | 75.01 |
| JPMorgan Chase Bank, N.A. | 3,866 | 1,145,930,196 | 3.95 | 4.267 | 760 | 74.34 | 74.73 |
| Fairway Independent Mortgage Corporation | 2,574 | 742,444,664 | 2.56 | 4.377 | 746 | 75.94 | 76.85 |
| Home Point Financial Corporation | 1,969 | 645,644,967 | 2.23 | 4.183 | 759 | 75.83 | 76.15 |
| Caliber Home Loans, Inc. | 1,951 | 611,347,463 | 2.11 | 4.242 | 754 | 73.81 | 74.36 |
| AmeriHome Mortgage Company, LLC | 1,961 | 511,174,669 | 1.76 | 4.282 | 757 | 75.61 | 76.05 |
| Movement Mortgage, LLC | 1,854 | 469,412,415 | 1.62 | 4.296 | 752 | 76.03 | 76.61 |
| Truist Bank (formerly SunTrust Bank) | 1,559 | 462,520,417 | 1.59 | 4.191 | 758 | 75.33 | 75.86 |
| Other | 57,064 | 15,031,635,419 | 51.83 | 4.271 | 750 | 75.60 | 76.03 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>Servicers of the Mortgage Loans as of the Cut-off Date</i> | | | | | | | |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Servicer | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| Wells Fargo Bank, N.A. | 16,134 | 4,444,049,221 | 15.32 | 4.361 | 749 | 76.21 | 76.67 |
| Quicken Loans Inc. | 10,062 | 2,858,486,026 | 9.86 | 4.321 | 741 | 74.37 | 74.58 |
| United Shore Financial Services, LLC d/b/a United | 4,844 | 1,597,747,621 | 5.51 | 4.227 | 752 | 74.81 | 75.07 |
| New Residential Mortgage LLC | 4,723 | 1,446,358,768 | 4.99 | 4.374 | 747 | 75.63 | 76.42 |
| JPMorgan Chase Bank, N.A. | 3,866 | 1,145,930,196 | 3.95 | 4.267 | 760 | 74.34 | 74.73 |
| CMC Funding, Inc. | 3,533 | 1,006,624,229 | 3.47 | 4.241 | 749 | 75.36 | 75.80 |
| Home Point Financial Corporation | 1,969 | 645,644,967 | 2.23 | 4.183 | 759 | 75.83 | 76.15 |
| Matrix Financial Services Corporation | 2,573 | 625,525,226 | 2.16 | 4.288 | 749 | 75.79 | 76.06 |
| Caliber Home Loans, Inc. | 1,951 | 611,347,463 | 2.11 | 4.242 | 754 | 73.81 | 74.36 |
| AmeriHome Mortgage Company, LLC | 1,961 | 511,174,669 | 1.76 | 4.282 | 757 | 75.61 | 76.05 |
| Other | 53,658 | 14,110,462,469 | 48.65 | 4.252 | 751 | 75.60 | 76.02 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

| <i>Origination Channel of the Mortgage Loans</i> | | | | | | | |
|--|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Origination Channel | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| Retail | 63,161 | 16,421,306,073 | 56.62 | 4.281 | 750 | 75.42 | 75.75 |
| Correspondent | 27,964 | 7,858,628,382 | 27.10 | 4.331 | 749 | 75.84 | 76.44 |
| Broker | 14,149 | 4,723,416,400 | 16.29 | 4.192 | 752 | 74.89 | 75.25 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>Mortgage Loans with Subordinate Financing at Origination</i> | | | | | | | |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Mortgage Loans with Subordinate Financing at Origination | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| No | 102,816 | 28,087,959,084 | 96.84 | 4.276 | 750 | 75.51 | 75.51 |
| Yes | 2,458 | 915,391,771 | 3.16 | 4.415 | 741 | 73.36 | 86.40 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>First Payment Date of the Mortgage Loans</i> | | | | | | | |
|---|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| First Payment Date | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| July 2018 | 2 | 981,616 | * | 4.263 | 741 | 70.04 | 70.04 |
| August 2018 | 4 | 1,430,915 | * | 4.873 | 727 | 75.56 | 75.56 |
| September 2018 | 3 | 1,032,614 | * | 4.621 | 759 | 73.91 | 73.91 |
| October 2018 | 20 | 5,427,745 | 0.02 | 4.975 | 739 | 76.01 | 77.15 |
| November 2018 | 33 | 7,705,962 | 0.03 | 4.908 | 760 | 75.82 | 76.66 |
| December 2018 | 46 | 11,971,326 | 0.04 | 5.071 | 748 | 74.84 | 75.62 |
| January 2019 | 66 | 14,586,544 | 0.05 | 5.173 | 747 | 75.26 | 76.48 |
| February 2019 | 71 | 13,822,587 | 0.05 | 5.238 | 748 | 75.76 | 75.76 |
| March 2019 | 104 | 21,816,475 | 0.08 | 5.188 | 725 | 75.78 | 76.30 |
| April 2019 | 160 | 36,969,859 | 0.13 | 4.893 | 740 | 75.01 | 75.45 |
| May 2019 | 385 | 93,383,349 | 0.32 | 4.962 | 735 | 74.96 | 75.36 |
| June 2019 | 1,897 | 527,814,455 | 1.82 | 4.612 | 742 | 75.48 | 76.11 |
| July 2019 | 15,293 | 4,280,837,217 | 14.76 | 4.474 | 748 | 75.80 | 76.31 |
| August 2019 | 37,767 | 10,289,883,103 | 35.48 | 4.361 | 749 | 75.55 | 75.95 |
| September 2019 | 37,079 | 10,226,538,570 | 35.26 | 4.157 | 751 | 75.23 | 75.63 |
| October 2019 | 12,344 | 3,469,148,518 | 11.96 | 4.068 | 753 | 75.31 | 75.65 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

* Indicates a number that is greater than 0.000% but less than 0.005%.

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

| <i>Maturity Date of the Mortgage Loans</i> | | | | | | | |
|--|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Maturity Date (year) | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| 2039 | 3 | 455,778 | * | 4.651 | 727 | 72.50 | 72.50 |
| 2040 | 5 | 931,771 | * | 4.240 | 732 | 67.23 | 67.23 |
| 2041 | 15 | 3,742,727 | 0.01 | 4.093 | 760 | 74.90 | 74.90 |
| 2042 | 35 | 9,408,982 | 0.03 | 4.164 | 745 | 72.07 | 72.07 |
| 2043 | 27 | 7,083,307 | 0.02 | 4.177 | 745 | 73.56 | 74.04 |
| 2044 | 841 | 220,793,466 | 0.76 | 4.199 | 750 | 73.63 | 73.80 |
| 2045 | 58 | 15,085,827 | 0.05 | 4.082 | 755 | 73.69 | 74.01 |
| 2046 | 167 | 42,789,941 | 0.15 | 4.137 | 750 | 73.38 | 73.74 |
| 2047 | 75 | 23,841,686 | 0.08 | 4.082 | 754 | 74.49 | 74.59 |
| 2048 | 329 | 91,970,133 | 0.32 | 4.537 | 754 | 75.23 | 75.75 |
| 2049 | 103,719 | 28,587,247,236 | 98.57 | 4.280 | 750 | 75.47 | 75.88 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

* Indicates a number that is greater than 0.000% but less than 0.005%.

| <i>First Time Homebuyer</i> | | | | | | | |
|-----------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| First Time Homebuyer | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| No | 88,971 | 24,764,544,730 | 85.39 | 4.292 | 750 | 75.08 | 75.46 |
| Yes | 16,303 | 4,238,806,125 | 14.61 | 4.211 | 748 | 77.57 | 78.18 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>Number of Borrowers</i> | | | | | | | | |
|----------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|--|
| Number of Borrowers | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) | |
| 1 | 55,475 | 14,297,299,682 | 49.30 | 4.298 | 751 | 75.37 | 75.75 | |
| 2 or more | 49,799 | 14,706,051,173 | 50.70 | 4.262 | 749 | 75.51 | 75.96 | |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 | |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

| <i>Number of Units</i> | | | | | | | |
|------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Number of Units | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| 1 | 102,953 | 28,312,620,327 | 97.62 | 4.267 | 750 | 75.50 | 75.92 |
| 2 | 1,609 | 445,002,284 | 1.53 | 4.756 | 747 | 73.71 | 73.73 |
| 3 | 371 | 129,680,412 | 0.45 | 4.957 | 746 | 72.63 | 72.63 |
| 4 | 341 | 116,047,831 | 0.40 | 4.941 | 755 | 72.48 | 72.48 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>Mortgage Insurance Coverage</i> | | | | | | | |
|------------------------------------|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Mortgage Insurance Coverage | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| None | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>Delinquency Status of the Mortgage Loans as of the Cut-off Date</i> | | | | | | | |
|--|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Delinquency Status | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| Current | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

| <i>Historical Delinquency of the Mortgage Loans Since Acquisition as of the Cut-off Date</i> | | | | | | | |
|--|---------------------------------|--|---|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Delinquency Status Since Acquisition | Number of Mortgage Loans | Unpaid Principal Balance (\$)⁽¹⁾ | Unpaid Principal Balance (%)⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
| Never Delinquent | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

HomeReady Indicator

| HomeReady Indicator | Number of Mortgage Loans | Unpaid Principal Balance (\$) ⁽¹⁾ | Unpaid Principal Balance (%) ⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|----------------------------|---------------------------------|---|--|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| No | 101,543 | 28,233,365,285 | 97.35 | 4.280 | 751 | 75.40 | 75.81 |
| Yes | 3,731 | 769,985,570 | 2.65 | 4.264 | 725 | 77.07 | 77.59 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

Property Inspection Waiver

| Property Inspection Waiver | Number of Mortgage Loans | Unpaid Principal Balance (\$) ⁽¹⁾ | Unpaid Principal Balance (%) ⁽¹⁾ | W.A. Mortgage Rate (%) | W.A. Original Credit Score | W.A. Original LTV Ratio (%) | W.A. Original CLTV Ratio (%) |
|-----------------------------------|---------------------------------|---|--|-------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| No | 85,737 | 22,634,311,543 | 78.04 | 4.338 | 748 | 75.77 | 76.25 |
| Yes | 19,537 | 6,369,039,312 | 21.96 | 4.072 | 756 | 74.30 | 74.46 |
| Total: | 105,274 | 29,003,350,855 | 100.00 | 4.280 | 750 | 75.44 | 75.86 |

⁽¹⁾ Amounts may not add up to the totals shown due to rounding.

Appendix B

Diligence Provider's Data Integrity Reviews Discrepancies

| Record Type | Loan File Data | Diligence Provider Data | In Reference Pool | Diligence Review Period |
|---------------------------------|-----------------------|--------------------------------|--------------------------|--------------------------------|
| DTI (Back) | 34.74% | 24.47% | No | Q4 2018 |
| DTI (Back) | 42.63% | 37.39% | No | Q4 2018 |
| DTI (Back) | 25.47% | 27.87% | No | Q4 2018 |
| DTI (Back) | 43.65% | 41.33% | No | Q4 2018 |
| DTI (Back) | 36.44% | 39.59% | No | Q4 2018 |
| DTI (Back) | 43.83% | 39.62% | No | Q4 2018 |
| DTI (Back) | 44.24% | 46.79% | No | Q4 2018 |
| DTI (Back) | 38.37% | 35.01% | No | Q4 2018 |
| DTI (Back) | 15.24% | 36.26% | No | Q4 2018 |
| DTI (Back) | 28.88% | 23.42% | No | Q4 2018 |
| DTI (Back) | 41.53% | 39.20% | No | Q4 2018 |
| DTI (Back) | 25.40% | 22.06% | No | Q4 2018 |
| DTI (Back) | 38.06% | 40.14% | No | Q4 2018 |
| DTI (Back) | 49.86% | 45.85% | No | Q4 2018 |
| DTI (Back) | 42.61% | 35.83% | No | Q4 2018 |
| DTI (Back) | 45.98% | 41.10% | No | Q4 2018 |
| DTI (Back) | 25.40% | 41.79% | No | Q4 2018 |
| DTI (Back) | 45.23% | 49.15% | No | Q4 2018 |
| DTI (Back) | 37.28% | 39.35% | No | Q4 2018 |
| DTI (Back) | 42.04% | 44.29% | No | Q4 2018 |
| DTI (Back) | 33.65% | 30.71% | No | Q4 2018 |
| DTI (Back) | 41.30% | 43.63% | No | Q4 2018 |
| DTI (Back) | 43.41% | 48.80% | No | Q4 2018 |
| DTI (Back) | 36.59% | 45.62% | No | Q4 2018 |
| DTI (Back) | 48.25% | 46.05% | No | Q4 2018 |
| DTI (Back) | 49.85% | 39.29% | No | Q4 2018 |
| DTI (Back) | 30.32% | 40.86% | No | Q4 2018 |
| Loan Purpose | Purchase | Refinance | No | Q4 2018 |
| Loan Purpose | Purchase | Refinance | No | Q4 2018 |
| MI Coverage | 0.30% | 25.00% | No | Q4 2018 |
| Occupancy Status | Second Home | Investment | No | Q4 2018 |
| Occupancy Status | Second Home | Investment | No | Q4 2018 |
| Occupancy Status | Second Home | Investment | No | Q4 2018 |
| Original Combined Loan to Value | 92.00% | 90.00% | No | Q4 2018 |
| Original Combined Loan to Value | 71.00% | 73.48% | No | Q4 2018 |
| Original Loan to Value | 70.00% | 61.65% | No | Q4 2018 |
| Original Loan to Value | 92.00% | 90.00% | No | Q4 2018 |
| Original Loan to Value | 71.00% | 73.48% | No | Q4 2018 |
| Property Type | Single Family | PUD | No | Q4 2018 |
| Property Type | Single Family | PUD | No | Q4 2018 |
| Representative Credit Score | 736 | 733 | No | Q4 2018 |
| Representative Credit Score | 764 | 765 | No | Q4 2018 |
| Representative Credit Score | 732 | 733 | No | Q4 2018 |
| DTI (Back) | 44.14% | 39.65% | No | Q1 2019 |
| DTI (Back) | 36.60% | 48.00% | No | Q1 2019 |
| DTI (Back) | 38.08% | 40.97% | No | Q1 2019 |
| DTI (Back) | 20.78% | 33.27% | No | Q1 2019 |
| DTI (Back) | 48.52% | 45.08% | No | Q1 2019 |

| Record Type | Loan File Data | Diligence Provider Data | In Reference Pool | Diligence Review Period |
|------------------------|-----------------------|--------------------------------|--------------------------|--------------------------------|
| DTI (Back) | 49.60% | 53.07% | No | Q1 2019 |
| DTI (Back) | 25.13% | 31.98% | No | Q1 2019 |
| DTI (Back) | 47.44% | 66.62% | No | Q1 2019 |
| DTI (Back) | 38.89% | 43.20% | No | Q1 2019 |
| DTI (Back) | 36.04% | 38.98% | No | Q1 2019 |
| DTI (Back) | 44.74% | 69.16% | No | Q1 2019 |
| DTI (Back) | 35.32% | 38.12% | No | Q1 2019 |
| DTI (Back) | 36.13% | 39.09% | No | Q1 2019 |
| DTI (Back) | 36.69% | 44.37% | No | Q1 2019 |
| DTI (Back) | 43.72% | 48.02% | No | Q1 2019 |
| DTI (Back) | 44.47% | 85.37% | No | Q1 2019 |
| DTI (Back) | 37.76% | 45.41% | No | Q1 2019 |
| Credit Score | 777 | Undetermined | No | Q1 2019 |
| First Time Homebuyer | No | Yes | No | Q1 2019 |
| First Time Homebuyer | Yes | No | No | Q1 2019 |
| First Time Homebuyer | No | Yes | No | Q1 2019 |
| First Time Homebuyer | Yes | No | No | Q1 2019 |
| First Time Homebuyer | No | Yes | No | Q1 2019 |
| First Time Homebuyer | No | Yes | No | Q1 2019 |
| First Time Homebuyer | Yes | No | No | Q1 2019 |
| Original Loan to Value | 70.00% | 67.00% | No | Q1 2019 |
| MI Coverage | 0.00% | 12.00% | No | Q1 2019 |
| Property Type | Single Family | PUD | No | Q1 2019 |
| Property Type | PUD | Manufactured Home | No | Q1 2019 |
| Property Type | PUD | Single Family | No | Q1 2019 |
| DTI (Back) | 38.56% | 47.00% | No | Q2 2019 |
| DTI (Back) | 40.02% | 45.15% | No | Q2 2019 |
| DTI (Back) | 49.96% | 28.25% | No | Q2 2019 |
| DTI (Back) | 27.49% | 45.47% | No | Q2 2019 |
| DTI (Back) | 41.95% | 44.64% | No | Q2 2019 |
| DTI (Back) | 40.47% | 44.04% | No | Q2 2019 |
| DTI (Back) | 45.42% | 49.69% | No | Q2 2019 |
| DTI (Back) | 39.87% | 43.37% | No | Q2 2019 |
| DTI (Back) | 42.72% | 38.71% | No | Q2 2019 |
| DTI (Back) | 43.87% | 38.00% | No | Q2 2019 |
| DTI (Back) | 41.82% | 54.60% | No | Q2 2019 |
| DTI (Back) | 22.94% | 29.91% | No | Q2 2019 |
| DTI (Back) | 42.35% | 45.48% | Yes | Q2 2019 |
| DTI (Back) | 42.48% | 48.00% | No | Q2 2019 |
| DTI (Back) | 18.16% | 48.63% | No | Q2 2019 |
| First Payment Date | 6/1/2019 | 5/1/2019 | No | Q2 2019 |
| First Time Homebuyer | Yes | No | No | Q2 2019 |
| First Time Homebuyer | Yes | No | No | Q2 2019 |
| First Time Homebuyer | Yes | No | No | Q2 2019 |
| First Time Homebuyer | Yes | No | No | Q2 2019 |
| First Time Homebuyer | No | Yes | No | Q2 2019 |
| First Time Homebuyer | No | Yes | No | Q2 2019 |
| First Time Homebuyer | No | Yes | No | Q2 2019 |
| First Time Homebuyer | No | Yes | No | Q2 2019 |
| First Time Homebuyer | No | Yes | No | Q2 2019 |
| First Time Homebuyer | Yes | No | No | Q2 2019 |
| First Time Homebuyer | No | Yes | Yes | Q2 2019 |
| Maturity Date | 5/1/2049 | 4/1/2049 | No | Q2 2019 |
| MI Coverage | 30.00% | 25.00% | No | Q2 2019 |
| MI Coverage | 12.00% | 25.00% | No | Q2 2019 |
| MI Coverage | 25.00% | 30.00% | No | Q2 2019 |

| Record Type | Loan File Data | Diligence Provider Data | In Reference Pool | Diligence Review Period |
|----------------------|-----------------------|--------------------------------|--------------------------|--------------------------------|
| MI Coverage | 12.00% | 25.00% | No | Q2 2019 |
| MI Coverage | 12.00% | 25.00% | No | Q2 2019 |
| MI Coverage | 25.00% | 30.00% | No | Q2 2019 |
| Property Type | PUD | Single Family | No | Q2 2019 |
| DTI (Back) | 25.00% | 47.02% | Yes | July-August 2019 |
| DTI (Back) | 27.00% | 31.87% | No | July-August 2019 |
| DTI (Back) | 41.00% | 43.87% | No | July-August 2019 |
| DTI (Back) | 47.00% | 49.50% | No | July-August 2019 |
| DTI (Back) | 32.00% | 27.13% | Yes | July-August 2019 |
| DTI (Back) | 36.00% | 32.70% | Yes | July-August 2019 |
| DTI (Back) | 29.00% | 32.28% | No | July-August 2019 |
| DTI (Back) | 42.00% | 38.00% | Yes | July-August 2019 |
| DTI (Back) | 27.00% | 40.00% | No | July-August 2019 |
| DTI (Back) | 8.00% | 10.84% | Yes | July-August 2019 |
| DTI (Back) | 17.00% | 21.98% | Yes | July-August 2019 |
| DTI (Back) | 38.00% | 67.19% | No | July-August 2019 |
| DTI (Back) | 49.00% | 109.45% | No | July-August 2019 |
| First Time Homebuyer | Yes | No | No | July-August 2019 |
| First Time Homebuyer | No | Yes | No | July-August 2019 |
| First Time Homebuyer | No | Yes | No | July-August 2019 |
| First Time Homebuyer | Yes | No | No | July-August 2019 |
| First Time Homebuyer | No | Yes | No | July-August 2019 |
| First Time Homebuyer | No | Yes | No | July-August 2019 |
| Loan Purpose | Cash-Out Refinance | Rate Term Refinance | Yes | July-August 2019 |
| MI Coverage | 12.00% | 25.00% | No | July-August 2019 |
| Property Type | Condo | Manufactured Home | No | July-August 2019 |
| Zip Code | 93637 | 93636 | Yes | July-August 2019 |

Appendix C

**Assumed Characteristics of the Reference Obligations
(as of the Cut-off Date)**

| Assumed Reference Obligation Group Number | Unpaid Principal Balance (\$) | Remaining Term to Maturity (months) | Original Term to Maturity (months) | Current Mortgage Rate (%) |
|--|--|--|---|--|
| 1 | 133,454.13 | 356 | 360 | 2.875 |
| 2 | 1,467,362.57 | 357 | 360 | 3.000 |
| 3 | 4,371,410.59 | 357 | 360 | 3.125 |
| 4 | 45,691,520.48 | 356 | 359 | 3.249 |
| 5 | 167,861,153.31 | 356 | 358 | 3.374 |
| 6 | 542,224,927.99 | 356 | 359 | 3.499 |
| 7 | 831,468,517.93 | 356 | 359 | 3.624 |
| 8 | 1,347,786,462.90 | 356 | 359 | 3.749 |
| 9 | 3,134,136,042.15 | 356 | 359 | 3.874 |
| 10 | 5,456,955,560.21 | 356 | 359 | 3.996 |
| 11 | 2,589,611,731.03 | 356 | 359 | 4.122 |
| 12 | 2,509,752,064.94 | 356 | 359 | 4.249 |
| 13 | 3,315,436,289.50 | 356 | 359 | 4.374 |
| 14 | 3,093,419,807.79 | 356 | 359 | 4.498 |
| 15 | 1,335,566,116.98 | 355 | 359 | 4.619 |
| 16 | 716,859,951.38 | 355 | 359 | 4.749 |
| 17 | 1,311,072,153.62 | 356 | 360 | 4.875 |
| 18 | 856,155,451.32 | 355 | 359 | 4.994 |
| 19 | 363,096,584.20 | 356 | 360 | 5.124 |
| 20 | 346,613,806.36 | 356 | 360 | 5.249 |
| 21 | 297,615,407.44 | 356 | 360 | 5.374 |
| 22 | 239,858,531.89 | 356 | 360 | 5.499 |
| 23 | 147,954,537.19 | 355 | 360 | 5.623 |
| 24 | 112,533,192.07 | 355 | 360 | 5.749 |
| 25 | 121,255,598.04 | 355 | 360 | 5.874 |
| 26 | 52,807,245.51 | 355 | 360 | 5.997 |
| 27 | 25,224,041.82 | 354 | 358 | 6.125 |
| 28 | 11,452,105.67 | 355 | 360 | 6.248 |
| 29 | 13,228,322.29 | 355 | 360 | 6.375 |
| 30 | 6,644,743.69 | 355 | 360 | 6.500 |
| 31 | 4,457,792.40 | 355 | 360 | 6.625 |
| 32 | 638,967.29 | 356 | 360 | 6.750 |

Appendix D

Seller Restrictions

Canada

Each Initial Purchaser has represented, warranted and agreed that:

(a) the sale and delivery of any Notes to any purchaser who is located or resident in Canada or who is purchasing on a non-discretionary basis for a principal who is located or resident in Canada (each such purchaser or principal, a "**Canadian Purchaser**") by such Initial Purchaser shall be made so as to be exempt from the prospectus filing requirements and exempt from, or in compliance with, the dealer registration requirements of all applicable securities laws, regulations, rules, instruments, rulings and orders, including those applicable in each of the provinces and territories of Canada where any Canadian purchaser is located or resident (as defined in this section, the "**Securities Laws**");

(b) (i) the Initial Purchaser is an investment dealer as defined in section 1.1 of National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations ("**NI 31-103**"); or (ii) any sale and delivery of any Notes to a Canadian Purchaser will be made through (A) an affiliate of the relevant Initial Purchaser that is a registered investment dealer, exempt market dealer or restricted dealer; or (B) in compliance with the international dealer exemption from the dealer registration requirements, and otherwise in compliance with the representations, warranties, and agreements set out herein;

(c) each Canadian Purchaser is entitled under the Securities Laws to acquire the Notes without a prospectus qualified under the Securities Laws, and such purchaser, (A) is a "permitted client" as defined in section 1.1 of NI 31-103 and an "accredited investor" as defined in Section 73.3 of the *Securities Act* (Ontario) or National Instrument 45-106 Prospectus Exemptions ("**NI 45-106**"), is not an individual unless relying on subparagraph (j.1) of the definition of "accredited investor" in NI 45-106, and if relying on subparagraph (m) of the definition of "accredited investor" in NI 45-106, was not formed and is not being used solely to acquire the Notes as an accredited investor;

(d) it has not provided and will not provide to any Canadian Purchaser any document or other material that would constitute an offering memorandum (other than this Offering Memorandum with respect to the private placement of the Notes in Canada) within the meaning of the Securities Laws;

(e) it has not made and will not make any offers or sales of any Notes to any Canadian Purchaser that is located or resident in any province or territory of Canada other than the provinces of Alberta, British Columbia, Ontario and Quebec;

(f) it has not provided and will not provide any document or any other material that would constitute an offering memorandum within the meaning of the Securities Laws to a Canadian Purchaser outside the provinces of Alberta, British Columbia, Ontario and Quebec;

(g) it has not made and it will not make any written or oral representations to any Canadian Purchaser:

(i) that any person will resell or repurchase the Notes purchased by such Canadian Purchaser;

(ii) that the Notes will be freely tradable by the Canadian Purchaser without any restrictions or hold periods;

(iii) that any person will refund the purchase price of the Notes; or

(iv) as to the future price or value of the Notes; and

Each Canadian Purchaser acquiring Notes is hereby notified that:

(a) The Notes may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in subsection 73.3(1) of the *Securities Act* (Ontario) or NI 45-106, and are permitted clients, as defined in NI 31-103. Any resale of the Notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws;

(b) Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this Offering Memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The Canadian Purchaser should refer to any applicable provisions of the securities legislation of the Canadian Purchaser's province or territory for particulars of these rights or consult with a legal advisor; and

(c) Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the Initial Purchasers are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European Economic Area

Each Initial Purchaser represents and agrees that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available Notes to any retail investor in the European Economic Area.

For the purposes of this provision, (a) the expression "retail investor" means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU of MiFID II; (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Regulation (as defined below); (b) the expression "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe for the Notes, as the same may be varied in a Member State by any measure implementing or supplementing the Prospectus Regulation (as defined below) in that Member State; and (c) the expression "Prospectus Regulation" means Regulation (EU) 2017/1129 (as amended), and includes any relevant implementing or supplementing measure in each relevant Member State.

Japan

The Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "**FIEA**") and, accordingly, each Initial Purchaser undertakes that it will not offer or sell any Notes directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan or to others for re-offering or resale, directly or indirectly, in Japan or to any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with the FIEA and other relevant laws and regulations of Japan. As used in this paragraph, "resident of Japan" means any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Korea

The Issuer is not making any representation with respect to eligibility of any recipients of this Offering Memorandum to acquire the Notes referred to herein under the laws of Korea. The Notes offered under this Offering Memorandum have not been and will not be registered with the Financial Services Commission of Korea for public offering in Korea under the Financial Investment Service and Capital Markets Act ("**FSCMA**") and are therefore subject to certain transfer restrictions. The Notes may not be offered, sold or delivered, directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea (as defined in the Foreign Exchange Transaction Law of Korea) except pursuant to the applicable laws and regulations of Korea, including the FSCMA and the Foreign Exchange Transaction Law and the decrees and regulations thereunder.

Singapore

The Initial Purchasers have acknowledged that this Offering Memorandum has not been and will not be registered as a prospectus with the Monetary Authority of Singapore, and that the Notes are (A) capital markets products other than prescribed capital markets products (as defined in the Singapore Securities and Futures (Capital Markets Products) Regulations 2018) and (B) Specified Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products). Accordingly, each Initial Purchaser has represented, warranted and agreed that it will neither offer nor sell the Notes pursuant to an offering nor make the Notes the subject of an invitation for subscription or purchase whether directly or indirectly, and has not circulated or distributed, nor will it circulate or distribute this Offering Memorandum or any other document or material in connection with the offer or sale, or invitation for subscription or purchase of the Notes, whether directly or indirectly, to any person in Singapore other than (a) to an institutional investor (as defined in Section 4A of the SFA) under Section 274 of the SFA, (b) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA and (where applicable) Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018, or (c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person that is:

(A) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(B) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred for six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except: (1) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA; (2) where no consideration is or will be given for the transfer; (3) where the transfer is by operation of law; (4) as specified in Section 276(7) of the SFA; or (5) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Any reference to the SFA is a reference to the Securities and Futures Act, Chapter 289 of Singapore and a reference to any term as defined in the SFA or any provision in the SFA is a reference to that term as modified or amended from time to time including by such of its subsidiary legislation as may be applicable at the relevant time.

Taiwan

The Notes have not been and will not be registered with the Financial Supervisory Commission of Taiwan, the Republic of China pursuant to relevant securities laws and regulations and may not be offered or sold in Taiwan, the Republic of China through a public offering or in circumstance which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan, the Republic of China that requires a registration or approval of the Financial Supervisory Commission of Taiwan, the Republic of China. No person or entity in Taiwan, the Republic of China has been authorized to offer or sell the Notes in Taiwan, the Republic of China.

United Kingdom

Each of the Initial Purchasers has represented and agreed that (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity, within the meaning of section 21 of the United Kingdom Financial Services and Markets Act 2000, as amended (the "FSMA"), received by it in connection with the issue or sale of any Notes in circumstances in which section 21(1) of the FSMA does not apply to the Issuer and (b) it has complied and will comply with all

applicable provisions of the FSMA with respect to anything done by it in relation to the Notes in, from or otherwise involving the United Kingdom.

