

# \$1,285,522,992 Government National Mortgage Association

# GINNIE MAE®

# Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2019-001

#### The Securities

The Trust will issue the Classes of Securities listed on the front cover of this offering circular supplement.

### The Ginnie Mae Guaranty

Ginnie Mae will guarantee the timely payment of principal and interest on the securities. The Ginnie Mae Guaranty is backed by the full faith and credit of the United States of America.

#### The Trust and its Assets

The Trust will own (1) Ginnie Mae Certificates and (2) certain previously issued certificates.

The securities may not be suitable investments for you. You should consider carefully the risks of investing in them.

See "Risk Factors" beginning on page S-14 which highlights some of these risks.

The Sponsor and the Co-Sponsor will offer the securities from time to time in negotiated transactions at varying prices. We expect the closing date to be January 30, 2019.

You should read the Base Offering Circular as well as this Supplement.

The securities are exempt from registration under the Securities Act of 1933 and are "exempted securities" under the Securities Exchange Act of 1934.

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 1						
CY	\$ 2,530,309	4.00%	PAC/AD	FIX	38381BUS1	January 2049
EA(1)	97,431,287	4.00	PAC/AD	FIX	38381BUT9	April 2048
<u>EY</u> (1)	4,253,844	4.00	PAC/AD	FIX	38381BUU6	October 2048
EZ	15,000,000	4.00	SUP	FIX/Z	38381BUV4	January 2049
IL IP	1,333,333 2,222,222	4.50 4.50	NTL(SEQ) NTL(PAC I)	FIX/IO FIX/IO	38381BUW2 38381BUX0	October 2045 November 2048
LA	25,000,000	3.50	SEQ	FIX	38381BUY8	October 2045
LB	40,000,000	3.35	SEO	FIX	38381BUZ5	October 2045
LF	131,696,237	(5)	PT	FLT	38381BVA9	January 2049
LS	41,454,508	(5)	NTL(PT)	INV/IO	38381BVB7	January 2049
LV(1)	4,236,369	3.50	SEQ/AD	FIX FIX/Z	38381BVC5	April 2030
LZ(1)	8,822,850 100,000,000	3.50 3.40	SEQ PAC I	FIX/Z FIX	38381BVD3 38381BVE1	January 2049 November 2048
PY	1,516,975	3.50	PAC I	FIX	38381BVF8	January 2049
SA	60,437,869	(5)	NTL(PT)	INV/IO	38381BVG6	January 2049
SM	29,803,860	(5)	NTL(PT)	INV/IO	38381BVH4	January 2049
UA	11,441,000	3.50	SUP/AD	FIX	38381BVJ0	January 2049
UD UE	5,015,000 1,450,000	3.50 3.00	PAC II SUP/AD	FIX FIX	38381BVK7 38381BVL5	January 2049
UG	1,450,000	4.00	SUP/AD SUP/AD	FIX	38381BVL3 38381BVM3	January 2049 January 2049
UZ	2,765	3.50	SUP	FIX/Z	38381BVN1	January 2049
VL(1)	4,849,798	3.50	SEQ/AD	FIX	38381BVP6	May 2039
Security Group 2						
AF	50,000,000	(5)	PT	FLT	38381BVQ4	January 2049
<u>AS</u>	50,000,000	(5)	NTL(PT)	INV/IO	38381BVR2	January 2049
Security Group 3 IO	21,661,746	4.50	NTL(SC/PT)	FIX/IO	38381BVS0	November 2048
Security Group 4	4 000		D. G.		***************************************	
CZ	1,000 6,400,000	3.00 (5)	PAC II SEQ	FIX/Z FLT	38381BVT8 38381BVU5	January 2049 September 2030
FC(1)	25,600,000	(5)	SEQ	FLT	38381BVV3	January 2049
FD(1)	9,000,000	(5)	SEQ	FLT	38381BVW1	March 2031
FE(1)	36,000,000	(5)	SEQ	FLT	38381BVX9	January 2049
KB(1)	5,549,000	3.50	PAC II/AD	FIX	38381BVY7	January 2049
KC	3,219,000	3.00	PAC II/AD	FIX	38381BVZ4	January 2049
KZ	3,000 42,385,000	3.75 3.50	SUP PAC I	FIX/Z FIX	38381BWA8 38381BWB6	January 2049 July 2047
ND(1)	5,503,000	3.50	PAC I	FIX	38381BWC4	October 2048
NE(1)	1,393,000	3.50	PAC I	FIX	38381BWD2	January 2049
NF	6,131,041	(5)	SUP/AD	FLT/DLY	38381BWE0	January 2049
NG(1)	31,371,000	3.50	PAC I	FIX	38381BWF7	September 2047
NK(1)	3,776,000 722,000	3.50 3.50	PAC I PAC I	FIX FIX	38381BWG5 38381BWH3	November 2048 January 2049
NS	3,678,625	(5)	SUP/AD	INV/DLY	38381BWJ9	January 2049
SB	6,400,000	(5)	NTL(SEQ)	INV/IO	38381BWK6	September 2030
SC(1)	25,600,000	(5)	NTL(SEQ)	INV/IO	38381BWL4	January 2049
SD	9,000,000	(5)	NTL(SEQ)	INV/IO	38381BWM2	March 2031
SE(1)	36,000,000 3,580,000	(5) 3.50	NTL(SEQ) SUP/AD	INV/IO FIX	38381BWN0 38381BWP5	January 2049 January 2049
UC	1,685,334	3.00	SUP/AD SUP/AD	FIX	38381BWQ3	January 2049 January 2049
ZC	1,000	3.00	SUP	FIX/Z	38381BWR1	January 2049
ZK(1)	1,000	3.50	PAC II	FIX/Z	38381BWS9	January 2049
ZU(1)	1,000	3.50	SUP	FIX/Z	38381BWT7	January 2049
Security Group 5	50,000,000	2.50	DACIAD	EIV	20201037174	Navambar 2047
BC	50,000,000 6,250,000	3.50 4.00	PAC/AD NTL(PAC/AD)	FIX FIX/IO	38381BWU4 38381BWV2	November 2047 November 2047
BL	5,423,078	4.00	PAC/AD	FIX	38381BWW0	January 2049
BZ	11,789,668	4.00	SUP	FIX/Z	38381BWX8	January 2049
Security Group 6						
A	20,000,000	4.50	PAC/AD	FIX	38381BWY6	December 2048
AZ	3,025,800 38,000	4.50 4.50	SUP PAC/AD	FIX/Z FIX/Z	38381BWZ3 38381BXA7	January 2049 January 2049
EAL X	36,000	T.JU	IACIAD	11A/L	JOJOIDAA/	January 2049

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# Citigroup

# **Roberts & Ryan Investments**

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 7						
MA(1)	\$ 50,407,000	4.00%	SEQ	FIX	38381BXB5	September 2044
MW(1)	6,263,000	4.00	SEQ	FIX	38381BXC3	April 2046
VA(1)	2,987,000	4.00	SEQ/AD	FIX	38381BXD1	March 2030
VB(1)	3,661,000	4.00	SEQ/AD	FIX	38381BXE9	May 2039
Z(1)	5,336,012	4.00	SÈQ	FIX/Z	38381BXF6	January 2049
Security Group 8						
KE	45,000,000	3.35	SEQ	FIX	38381BXG4	July 2045
KF	117,940,666	(5)	PT	FLT	38381BXH2	January 2049
KG(1)	5,678,000	3.00	SCH/AD	FIX	38381BXJ8	January 2049
KH(1)	5,678,000	4.00	SCH/AD	FIX	38381BXK5	January 2049
KI	1,500,000	4.50	NTL(SEO)	FIX/IO	38381BXL3	July 2045
KL(1)	2,972,667	3.00	SUP/AD	FIX	38381BXM1	January 2049
KM(1)	2,972,667	4.00	SUP/AD	FIX	38381BXN9	January 2049
KT	20,000,000	3.50	PT	FIX	38381BXP4	January 2049
KV(1)	4,363,000	3.50	SEQ/AD	FIX	38381BXO2	April 2030
MZ`	1,000	3.50	SCH	FIX/Z	38381BXR0	January 2049
PA	135,000,000	4.00	PAC/AD	FIX	38381BXS8	May 2048
PB	8,423,000	4.00	PAC/AD	FIX	38381BXT6	January 2049
PD	50,000,000	3.50	PAC	FIX	38381BXU3	July 2047
PE	8,062,000	3.50	PAC	FIX	38381BXV1	January 2049
PZ(1)	9,079,000	3.50	SEO	FIX/Z	38381BXW9	January 2049
SG(1)	51,015,999	(5)	NTL(PT)	INV/IO	38381BXX7	January 2049
SH(1)	20,666,667	(5)	NTL(PT)	INV/IO	38381BXY5	January 2049
SJ(1)	46,258,000	(5)	NTL(PT)	INV/IO	38381BXZ2	January 2049
ZM	1,000	3.50	SUP	FIX/Z	38381BYA6	January 2049
ZP	20,725,000	4.00	SUP	FIX/Z	38381BYB4	January 2049
Residuals						
R2	0	0.00	NPR	NPR	38381BYC2	January 2049
R3	ŏ	0.00	NPR	NPR	38381BYD0	November 2048
RR	Ĭ	0.00	NPR	NPR	38381BYE8	January 2049

- (1) These Securities may be exchanged for MX Securities described in Schedule I to this Supplement.
- (2) Subject to increase as described under "Increase in Size" in this Supplement. The amount shown for each Notional Class (indicated by "NTL" under Principal Type) is its original Class Notional Balance and does not represent principal that will be paid.
- (3) As defined under "Class Types" in Appendix I to the Base Offering Circular. The Class Notional Balance of each Notional Class will be reduced as shown under "Terms Sheet Notional Classes" in this Supplement.
- $(4) \quad See \ ``Yield, Maturity and Prepayment Considerations -- Final \ Distribution \ Date" \ in this \ Supplement.$
- (5) See "Terms Sheet Interest Rates" in this Supplement.

#### **AVAILABLE INFORMATION**

You should purchase the securities only if you have read and understood the following documents:

- this Offering Circular Supplement (this "Supplement"),
- the Base Offering Circular and
- in the case of the Group 3 securities, each disclosure document relating to the Underlying Certificates (the "Underlying Certificate Disclosure Documents").

The Base Offering Circular and the Underlying Certificate Disclosure Documents are available on Ginnie Mae's website located at http://www.ginniemae.gov.

If you do not have access to the internet, call BNY Mellon, which will act as information agent for the Trust, at (800) 234-GNMA, to order copies of the Base Offering Circular. In addition, you can obtain copies of any other document listed above by contacting BNY Mellon at the telephone number listed above.

Please consult the standard abbreviations of Class Types included in the Base Offering Circular as Appendix I and the glossary included in the Base Offering Circular as Appendix II for definitions of capitalized terms.

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#### **TERMS SHEET**

This terms sheet contains selected information for quick reference only. You should read this Supplement, particularly "Risk Factors," and each of the other documents listed under "Available Information."

**Sponsor:** Citigroup Global Markets Inc.

**Co-Sponsor:** Roberts & Ryan Investments, Inc.

Trustee: U.S. Bank National Association

**Tax Administrator:** The Trustee **Closing Date:** January 30, 2019

Distribution Date: The 20th day of each month or, if the 20th day is not a Business Day, the first

Business Day thereafter, commencing in February 2019.

#### **Trust Assets:**

Trust Asset Group or Subgroup <sup>(2)</sup>	Trust Asset Type	Certificate Rate	Original Term To Maturity (in years)
1A	Ginnie Mae II	4.5%	30
1B	Ginnie Mae II	4.5%	30
1C	Ginnie Mae II	4.5%	30
2	Ginnie Mae II	4.5%	30
3	Underlying Certificates	(1)	(1)
4A	Ginnie Mae II	4.5%	30
4B	Ginnie Mae II	5.0%	30
5	Ginnie Mae II	4.0%	30
6	Ginnie Mae II	4.5%	30
7	Ginnie Mae II	4.0%	30
8A	Ginnie Mae II	4.5%	30
8B	Ginnie Mae II	4.5%	30
8C	Ginnie Mae II	4.5%	30
8D	Ginnie Mae II	4.5%	30
8E	Ginnie Mae II	4.5%	30
8F	Ginnie Mae II	4.5%	30
8G	Ginnie Mae II	4.5%	30
8H	Ginnie Mae II	4.5%	30

<sup>(1)</sup> Certain information regarding the Underlying Certificates is set forth in Exhibit A to this Supplement.

**Security Groups:** This series of Securities consists of multiple Security Groups (each, a "Group"), as shown on the front cover of this Supplement and on Schedule I to this Supplement. Payments on each

<sup>&</sup>lt;sup>(2)</sup> The Group 1, 4 and 8 Trust Assets consist of subgroups, Subgroups 1A, 1B, 1C, 4A, 4B, 8A, 8B, 8C, 8D, 8E, 8F, 8G and 8H (each, a "Subgroup").

Group will be based solely on payments on the Trust Asset Group with the same numerical designation.

Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets<sup>(1)</sup>:

Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate <sup>(2)</sup>
Subgroup 1A Trust Assets	257	2	/ 02 <b>7</b> 0/
\$181,313,609	357	2	4.937%
<b>Subgroup 1B Trust Assets</b> \$124,363,525	356	2	4.959%
<b>Subgroup 1C Trust Assets</b> \$149,019,300	358	1	4.985%
<b>Group 2 Trust Assets</b> \$50,000,000 <sup>(3)</sup>	355	4	4.974%
Subgroup 4A Trust Assets \$96,000,000	359	1	5.000%
Subgroup 4B Trust Assets \$90,000,000	359	1	5.400%
<b>Group 5 Trust Assets</b> \$67,212,746 <sup>(3)</sup>	357	2	4.471%
<b>Group 6 Trust Assets</b> \$23,063,800 <sup>(3)</sup>	358	1	4.900%
<b>Group 7 Trust Assets</b> \$68,654,012 <sup>(3)</sup>	355	3	4.371%
<b>Subgroup 8A Trust Assets</b> \$70,000,000	357	2	4.940%
<b>Subgroup 8B Trust Assets</b> \$75,185,000	357	2	4.940%
<b>Subgroup 8C Trust Assets</b> \$60,000,000	357	2	4.940%
<b>Subgroup 8D Trust Assets</b> \$113,048,000	359	1	4.918%
<b>Subgroup 8E Trust Assets</b> \$30,000,000	357	2	4.900%
<b>Subgroup 8F Trust Assets</b> \$40,000,000	357	2	4.900%
<b>Subgroup 8G Trust Assets</b> \$20,000,000	357	2	4.900%
<b>Subgroup 8H Trust Assets</b> \$27,663,000	357	2	4.900%
(1) As of January 1, 2019.			

- (2) The Mortgage Loans underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.
- (3) More than 10% of the Mortgage Loans underlying the Group 2, 5, 6 and 7 Trust Assets may be higher balance Mortgage Loans. *See "Risk Factors" in this Supplement.*

The actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets will differ from the weighted averages shown above, perhaps significantly. See "The Trust Assets — The Mortgage Loans" in this Supplement.

**Characteristics of the Mortgage Loans Underlying the Group 3 Trust Assets:** See Exhibit A to this Supplement for certain information regarding the characteristics of the Mortgage Loans included in the Underlying Trusts.

**Issuance of Securities:** The Securities, other than the Residual Securities, will initially be issued in book-entry form through the book-entry system of the U.S. Federal Reserve Banks (the "Fedwire Book-Entry System"). The Residual Securities will be issued in fully registered, certificated form. *See "Description of the Securities — Form of Securities" in this Supplement.* 

**Modification and Exchange:** If you own exchangeable Securities you will be able, upon notice and payment of an exchange fee, to exchange them for a proportionate interest in the related Securities shown on Schedule I to this Supplement. See "Description of the Securities — Modification and Exchange" in this Supplement.

**Increased Minimum Denomination Classes:** Each Class that constitutes an Interest Only or Inverse Floating Rate Class. *See "Description of the Securities — Form of Securities" in this Supplement.* 

**Interest Rates:** The Interest Rates for the Fixed Rate Classes are shown on the front cover of this Supplement or on Schedule I to this Supplement.

The Floating Rate and Inverse Floating Rate Classes will bear interest at per annum rates based on one-month LIBOR (hereinafter referred to as "LIBOR") as follows:

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	LIBOR for Minimum Interest Rate
AF	LIBOR + 0.73%	3.24550000%	0.73%	4.50000000%	0	0.00%
AS	3.77% — LIBOR	1.25450000%	0.00%	3.77000000%	0	3.77%
FB	LIBOR + 0.45%	2.96550000%	0.45%	6.500000000%	O	0.00%
FC	LIBOR + 0.45%	2.96550000%	0.45%	6.50000000%	0	0.00%
FD	LIBOR + 0.45%	2.96550000%	0.45%	6.50000000%	0	0.00%
FE	LIBOR + 0.45%	2.96550000%	0.45%	6.500000000%	0	0.00%
FM	LIBOR + 0.45%	2.96550000%	0.45%	6.500000000%	0	0.00%
FN	LIBOR + 0.45%	2.96550000%	0.45%	6.500000000%	0	0.00%
KF	LIBOR + 0.45%	2.96419000%	0.45%	6.500000000%	0	0.00%
LF	LIBOR + 0.45%	2.78675000%	0.45%	6.500000000%	0	0.00%
LS	6.05% — LIBOR	3.71325000%	0.00%	6.05000000%	0	6.05%
NF	LIBOR + 1.00%	3.51550000%	1.00%	6.00000000%	19	0.00%
NS	8.33333333% - (LIBOR × 1.66666667)	4.14083332%	0.00%	8.33333333%	19	5.00%
SA	6.05% — LIBOR	3.71325000%	0.00%	6.05000000%	0	6.05%
SB	6.05% — LIBOR	3.53450000%	0.00%	6.05000000%	0	6.05%
SC	6.05% — LIBOR	3.53450000%	0.00%	6.05000000%	0	6.05%
SD	6.05% — LIBOR	3.53450000%	0.00%	6.05000000%	0	6.05%
SE	6.05% – LIBOR	3.53450000%	0.00%	6.05000000%	0	6.05%
SG	6.05% — LIBOR	3.53581000%	0.00%	6.05000000%	0	6.05%
SH	6.05% — LIBOR	3.53581000%	0.00%	6.05000000%	0	6.05%
SJ	6.05% — LIBOR	3.53581000%	0.00%	6.05000000%	0	6.05%
SK	6.05% — LIBOR	3.53450000%	0.00%	6.05000000%	0	6.05%
SL	6.05% - LIBOR	3.53581000%	0.00%	6.05000000%	0	6.05%
SM	6.05% - LIBOR	3.71325000%	0.00%	6.05000000%	0	6.05%
SN	6.05% — LIBOR	3.53581000%	0.00%	6.05000000%	0	6.05%

- (1) LIBOR will be established on the basis of the ICE LIBOR method, as described under "Description of the Securities Interest Distributions Floating Rate and Inverse Floating Rate Classes" in this Supplement.
- (2) The initial Interest Rate will be in effect during the first Accrual Period; the Interest Rate will adjust monthly thereafter.

**Allocation of Principal:** On each Distribution Date for a Security Group, the following distributions will be made to the related Securities:

### **SECURITY GROUP 1**

The Subgroup 1A Principal Distribution Amount, the Subgroup 1B Principal Distribution Amount, the Subgroup 1C Principal Distribution Amount, the EZ Accrual Amount, the LZ Accrual Amount and the UZ Accrual Amount will be allocated as follows:

- The LZ Accrual Amount, sequentially, to LV, VL and LZ, in that order, until retired
- The UZ Accrual Amount in the following order of priority:
  - 1. Concurrently, to UA, UE and UG, pro rata, until retired
  - 2. To UZ, until retired

- 33.3333329656% of the Subgroup 1A Principal Distribution Amount, 33.3333330653% of the Subgroup 1B Principal Distribution Amount and 20% of the Subgroup 1C Principal Distribution Amount to LF, until retired
- The remainder of the Subgroup 1A Principal Distribution Amount in the following order of priority:
  - 1. Sequentially, to PC and PY, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To UD, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 3. Concurrently, to UA, UE and UG, pro rata, until retired
  - 4. To UZ, until retired
  - 5. To UD, without regard to its Scheduled Principal Balance, until retired
  - 6. Sequentially, to PC and PY, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired
- The remainder of the Subgroup 1B Principal Distribution Amount in the following order of priority:
  - 1. Concurrently, to LA and LB, pro rata, until retired
  - 2. Sequentially, LV, VL and LZ, in that order, until retired
- The remainder of the Subgroup 1C Principal Distribution Amount and the EZ Accrual Amount in the following order of priority:
  - 1. Sequentially, to EA, EY and CY, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To EZ, until retired
  - 3. Sequentially, to EA, EY and CY, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 2**

The Group 2 Principal Distribution Amount, to AF, until retired

# **SECURITY GROUP 4**

The Subgroup 4A Principal Distribution Amount, the Subgroup 4B Principal Distribution Amount, the CZ Accrual Amount, the KZ Accrual Amount, the ZC Accrual Amount, the ZK Accrual Amount and the ZU Accrual Amount will be allocated as follows:

- The CZ Accrual Amount, sequentially, to KC and CZ, in that order, until retired
- The KZ Accrual Amount in the following order of priority:
  - 1. Concurrently, to NF and NS, pro rata, until retired
  - 2. To KZ, until retired
- The ZC Accrual Amount, sequentially, to UC and ZC, in that order, until retired
- The ZK Accrual Amount, sequentially, to KB and ZK, in that order, until retired

- The ZU Accrual Amount, sequentially, to UB and ZU, in that order, until retired
- The Subgroup 4A Principal Distribution Amount, concurrently, as follows:
  - 1. 33.333333333%, sequentially, to FB and FC, in that order, until retired
  - 2. 66.666666667% in the following order of priority:
  - a. Sequentially, to NA, ND and NE, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
    - b. Concurrently, as follows:
      - i. 66.666621374% in the following order of priority:
        - A. Concurrently, to NF and NS, pro rata, until retired
        - B. To KZ, until retired
      - ii. 33.333378626% in the following order of priority:
    - A. Sequentially, to KC and CZ, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
      - B. Sequentially, to UC and ZC, in that order, until retired
    - C. Sequentially, to KC and CZ, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired
  - c. Sequentially, to NA, ND and NE, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired
- The Subgroup 4B Principal Distribution Amount, concurrently, as follows:
  - 1. 50%, sequentially, to FD and FE, in that order, until retired
  - 2. 50% in the following order of priority:
  - a. Sequentially, to NG, NK and NL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - b. Sequentially, to KB and ZK, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
    - c. Sequentially, to UB and ZU, in that order, until retired
  - d. Sequentially, to KB and ZK, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired
  - e. Sequentially, to NG, NK and NL, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

# **SECURITY GROUP 5**

The Group 5 Principal Distribution Amount and the BZ Accrual Amount will be allocated in the following order of priority:

- 1. Sequentially, to BC and BL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To BZ, until retired

3. Sequentially, to BC and BL, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 6**

The Group 6 Principal Distribution Amount, the AZ Accrual Amount and the ZA Accrual Amount will be allocated as follows:

- The ZA Accrual Amount, sequentially, to A and ZA, in that order, until retired
- The Group 6 Principal Distribution Amount and the AZ Accrual Amount in the following order of priority:
- 1. Sequentially, to A and ZA, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To AZ, until retired
- 3. Sequentially, to A and ZA, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 7**

The Group 7 Principal Distribution Amount and the Z Accrual Amount will be allocated as follows:

- The Z Accrual Amount, sequentially, to VA, VB and Z, in that order, until retired
- The Group 7 Principal Distribution Amount, sequentially, to MA, MW, VA, VB and Z, in that order, until retired

#### **SECURITY GROUP 8**

The Subgroup 8A Principal Distribution Amount, the Subgroup 8B Principal Distribution Amount, the Subgroup 8C Principal Distribution Amount, the Subgroup 8D Principal Distribution Amount, the Subgroup 8E Principal Distribution Amount, the Subgroup 8G Principal Distribution Amount, the Subgroup 8G Principal Distribution Amount, the Subgroup 8H Principal Distribution Amount, the MZ Accrual Amount, the PZ Accrual Amount, the ZM Accrual Amount and the ZP Accrual Amount will be allocated as follows:

- The MZ Accrual Amount in the following order of priority:
  - Concurrently, to KG and KH, pro rata, until retired
  - To MZ, until retired
- The PZ Accrual Amount, sequentially, to KV and PZ, in that order, until retired
- The ZM Accrual Amount in the following order of priority:
  - · Concurrently, KL and KM, pro rata, until retired
  - To ZM, until retired
- 20% of the Subgroup 8A Principal Distribution Amount, 20% of the Subgroup 8B Principal Distribution Amount, 20% of the Subgroup 8C Principal Distribution Amount, 33.3333327436% of the Subgroup 8D Principal Distribution Amount, 33.33333333% of the Subgroup 8E Principal Distribution Amount, 33.3333325% of the Subgroup 8F Principal Distribution Amount, 33.333335% of the Subgroup 8G Principal Distribution Amount and 33.33333333% of the Subgroup 8H Principal Distribution Amount to KF, until retired

- The remainder of the Subgroup 8A Principal Distribution Amount, the remainder of the Subgroup 8B Principal Distribution Amount, the remainder of the Subgroup 8C Principal Distribution Amount and the ZP Accrual Amount in the following order of priority:
- 1. Sequentially, to PA and PB, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To ZP, until retired
- 3. Sequentially, to PA and PB, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired
- The remainder of the Subgroup 8D Principal Distribution Amount in the following order of priority:
- 1. Sequentially, to PD and PE, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
- 2. To KG, KH and MZ, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date in the following order of priority:
  - a. Concurrently, to KG and KH, pro rata, until retired
  - b. To MZ, until retired
  - 3. Concurrently, to KL and KM, pro rata, until retired
  - 4. To ZM, until retired
- 5. To KG, KH and MZ, in the same manner and priority as step 2, but without regard to their Aggregate Scheduled Principal Balance for that Distribution Date, until retired
- 6. Sequentially, to PD and PE, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired
- The remainder of the Subgroup 8E Principal Distribution Amount to KT, until retired
- The remainder of the Subgroup 8F Principal Distribution Amount, the remainder of the Subgroup 8G Principal Distribution Amount and the remainder of the Subgroup 8H Principal Distribution Amount, sequentially, to KE, KV and PZ, in that order, until retired

**Scheduled Principal Balances:** The Scheduled Principal Balances or Aggregate Scheduled Principal Balances for the Classes listed below are included in Schedule II to this Supplement. They were calculated using among other things the following Structuring Ranges:

	Structuring Ranges
PAC Classes	
A and ZA (in the aggregate)	180% PSA through 300% PSA
BC and BL (in the aggregate)	150% PSA through 300% PSA
CY, EA and EY (in the aggregate)	150% PSA through 250% PSA
PA and PB (in the aggregate)	150% PSA through 250% PSA
PD and PE (in the aggregate)	150% PSA through 300% PSA
PAC I Classes	
NA, ND and NE (in the aggregate)	150% PSA through 300% PSA
NG, NK and NL (in the aggregate)	165% PSA through 300% PSA
PC and PY (in the aggregate)	150% PSA through 245% PSA
PAC II Classes	
CZ and KC (in the aggregate)	240% PSA through 300% PSA
KB and ZK (in the aggregate)	240% PSA through 300% PSA
UD	173% PSA through 245% PSA
Scheduled Classes	
KG, KH and MZ (in the aggregate)	240% PSA through 300% PSA

**Accrual Classes:** Interest will accrue on each Accrual Class identified on the front cover of this Supplement at the per annum rate set forth on that page. However, no interest will be distributed to the Accrual Classes as interest. Interest so accrued on each Accrual Class on each Distribution Date will constitute an Accrual Amount, which will be added to the Class Principal Balance of that Class on each Distribution Date and will be distributable as principal as set forth in this Terms Sheet under "Allocation of Principal."

**Notional Classes:** The Notional Classes will not receive distributions of principal but have Class Notional Balances for convenience in describing their entitlements to interest. The Class Notional Balance of each Notional Class represents the percentage indicated below of, and reduces to that extent with, the Class Principal Balances or the outstanding principal or notional balance of the related Trust Asset Group, Subgroup or Subgroups indicated:

Class	Original Class Notional Balance	Represents Approximately
AS	\$50,000,000	100% of AF (PT Class)
ВІ	6,250,000	12.5% of BC (PAC/AD Class)
IC	22,596,695	22.22222222% of EA and EY (in the aggregate) (PAC/AD Classes)
IE	21,651,397	22.222222222% of EA (PAC/AD Class)
$\mathrm{IL} \ldots \ldots$	1,333,333	3.33333333333% of LB (SEQ Class)
IO	21,661,746	100% of Group 3 Trust Assets
IP	2,222,222	2.2222222222% of PC (PAC I Class)
KI	1,500,000	3.3333333333% of KE (SEQ Class)
LS	41,454,508	33.3333330653% of the Subgroup 1B Trust Assets
SA	60,437,869	33.333329656% of the Subgroup 1A Trust Assets
SB	6,400,000	100% of FB (SEQ Class)
SC	25,600,000	100% of FC (SEQ Class)
$SD \dots$	9,000,000	100% of FD (SEQ Class)
SE	36,000,000	100% of FE (SEQ Class)
SG	\$37,682,666	33.3333327436% of the Subgroup 8D Trust Assets
	13,333,333	33.3333325% of the Subgroup 8F Trust Assets
	\$51,015,999	
SH	\$14,000,000	20% of the Subgroup 8A Trust Assets
	6,666,667	33.33335% of the Subgroup 8G Trust Assets
	\$20,666,667	
SJ	\$27,037,000	20% of the Subgroup 8B and 8C Trust Assets (in the aggregate)
OJ	19,221,000	33.33333333333 % of the Subgroup 8E and 8H Trust Assets (in the aggregate)
	\$46,258,000	55,5555555555
SK	\$61,600,000	100% of FC and FE (in the aggregate) (SEQ Classes)
SL	\$14,000,000	20% of the Subgroup 8A Trust Assets
	37,682,666	33.3333327436% of the Subgroup 8D Trust Assets
	13,333,333	33.3333325% of the Subgroup 8F Trust Assets
	6,666,667	33.33335% of the Subgroup 8G Trust Assets
	\$71,682,666	
SM	\$29,803,860	20% of the Subgroup 1C Trust Assets
SN	\$41,037,000	20% of the Subgroup 8A, 8B and 8C Trust Assets (in the aggregate)
011	19,221,000	33.333333333333 % of the Subgroup 8E and 8H Trust Assets (in the aggregate)
	6,666,667	33.33335% of the Subgroup 8G Trust Assets
	\$66,924,667	
	= -,,,,,,,,	

<b>Tax Status:</b> Single REMIC Series as to the Group 2 Trust Assets (the "Group 2 REMIC"), Single REMIC Series as to the Group 3 Trust Assets (the "Group 3 REMIC") and Double REMIC Series as to the Group 1, 4, 5, 6, 7 and 8 Trust Assets. Separate REMIC elections will be made as to the Group 2 REMIC, as to the Group 3 REMIC and as to the Issuing REMIC and the Pooling REMIC with respect to the Group 1, 4, 5, 6, 7 and 8 Trust Assets (the "Group 1, 4, 5, 6, 7 and 8 Issuing REMIC" and the "Group 1, 4, 5, 6, 7 and 8 Pooling REMIC," respectively). See "Certain United States Federal Income Tax Consequences" in this Supplement and in the Base Offering Circular.
<b>Regular and Residual Classes:</b> Classes RR, R2 and R3 are Residual Classes. Class RR represents the Residual Interest of the Group 1, 4, 5, 6, 7 and 8 Issuing and Pooling REMICs. Class R2 represents the Residual Interest of the Group 2 REMIC. Class R3 represents the Residual Interest of the Group 3 REMIC. All other Classes of REMIC Securities are Regular Classes.

#### **RISK FACTORS**

You should purchase securities only if you understand and are able to bear the associated risks. The risks applicable to your investment depend on the principal and interest type of your securities. This section highlights certain of these risks.

The rate of principal payments on the underlying mortgage loans will affect the rate of principal payments on your securities. The rate at which you will receive principal payments will depend largely on the rate of principal payments, including prepayments, on the mortgage loans underlying the related trust assets. Any historical data regarding mortgage loan prepayment rates may not be indicative of the rate of future prepayments on the underlying mortgage loans, and no assurances can be given about the rates at which the underlying mortgage loans will prepay. We expect the rate of principal payments on the underlying mortgage loans to vary. Borrowers generally may prepay their mortgage loans at any time without penalty.

The terms of the mortgage loans may be modified to permit, among other things, a partial release of security, which releases a portion of the mortgaged property from the lien securing the related mortgage loan. Partial releases of security may reduce the value of the remaining security and also allow the related borrower to sell the released property and generate proceeds that may be used to prepay the related mortgage loan in whole or in part.

In addition to voluntary prepayments, mortgage loans can be prepaid as a result of governmental mortgage insurance claim payments, loss mitigation arrangements, repurchases or liquidations of defaulted mortgage loans. Although under certain circumstances Ginnie Mae issuers have the option to repurchase defaulted mortgage loans from the related pool underlying a Ginnie Mae MBS certificate, they are not obligated to do so. Defaulted mortgage loans that remain in pools backing Ginnie Mae MBS certificates may be subject to governmental mortgage insurance claim payments, loss mitigation arrangements or foreclosure, which could have the same effect as voluntary prepayments on the cash flow available to pay the securities.

A catastrophic weather event or other natural disaster may affect the rate of principal payments, including prepayments, on the underlying mortgage loans. Any such event may damage the related mortgaged properties that secure the mortgage loans and may lead to a general economic downturn in the affected regions, including job losses and declines in real estate values. A general economic downturn may increase the rate of defaults on the mortgage loans in such areas resulting in prepayments on the related securities due to governmental mortgage insurance claim payments, loss mitigation arrangements, repurchases or liquidations of defaulted mortgage loans. Insurance payments on damaged or destroyed homes may also lead to prepayments on the underlying mortgage loans. Further, in connection with presidentially declared major disasters, Ginnie Mae may authorize optional special assistance to issuers, including expanded buyout authority which allows issuers, upon receiving written approval from Ginnie Mae, to repurchase eligible loans from the related pool underlying a Ginnie Mae MBS certificate, even if such loans are not delinquent or do not otherwise meet the standard conditions for removal or repurchase.

No assurances can be given as to the timing or frequency of any governmental mortgage insurance claim payments, issuer repurchases, loss mitigation arrangements or foreclosure proceedings with respect to defaulted mortgage loans and the resulting effect on the timing or rate of principal payments on your securities.

Rates of principal payments can reduce your yield. The yield on your securities probably will be lower than you expect if:

• you bought your securities at a premium (interest only securities, for example) and principal payments are faster than you expected, or

 you bought your securities at a discount and principal payments are slower than you expected.

In addition, if your securities are interest only securities or securities purchased at a significant premium, you could lose money on your investment if prepayments occur at a rapid rate.

Under certain circumstances, a Ginnie Mae issuer has the right to repurchase a defaulted mortgage loan from the related pool of mortgage loans underlying a particular Ginnie Mae MBS certificate, the effect of which would be comparable to a prepayment of such mortgage loan. At its option and without Ginnie Mae's prior consent, a Ginnie Mae issuer may repurchase any mortgage loan at an amount equal to par less any amounts previously advanced by such issuer in connection with its responsibilities as servicer of such mortgage loan to the extent that (i) in the case of a mortgage loan included in a pool of mortgage loans underlying a Ginnie Mae MBS certificate issued on or before December 1, 2002, such mortgage loan has been delinquent for four consecutive months, and at least one delinquent payment remains uncured or (ii) in the case of a mortgage loan included in a pool of mortgage loans underlying a Ginnie Mae MBS certificate issued on or after January 1, 2003, no payment has been made on such mortgage loan for three consecutive months. Any such repurchase will result in prepayment of the principal balance or reduction in the notional balance of the securities ultimately backed by such mortgage loan. No assurances can be given as to the timing or frequency of any such repurchases.

The level of LIBOR will affect the yields on the floating rate and inverse floating rate securities. If LIBOR performs differently from what you expect, the yield on your securities may be lower than you expect. Lower levels of LIBOR will generally reduce the yield on floating rate securities; higher levels of LIBOR will generally reduce the yield on inverse floating rate securities. You should bear in mind that the timing of changes in the level of LIBOR may

affect your yield: generally, the earlier a change, the greater the effect on your yield. It is doubtful that LIBOR will remain constant.

An investment in the securities is subject to significant reinvestment risk. The rate of principal payments on your securities is uncertain. You may be unable to reinvest the payments on your securities at the same returns provided by the securities. Lower prevailing interest rates may result in an unexpected return of principal. In that interest rate climate, higher yielding reinvestment opportunities may be limited. Conversely, higher prevailing interest rates may result in slower returns of principal, and you may not be able to take advantage of higher yielding investment opportunities. The final payment on your security may occur much earlier than the final distribution date.

Support securities will be more sensitive to rates of principal payments than other securities. If principal prepayments result in principal distributions on any distribution date equal to or less than the amount needed to produce scheduled payments on the PAC and scheduled classes, the related support classes will not receive any principal distribution on that date (other than from any applicable accrual amount). If prepayments result in principal distributions on any distribution date greater than the amount needed to produce scheduled payments on the related PAC and scheduled classes for that distribution date, this excess will be distributed to the related support classes.

The rate of payments on the underlying certificates will directly affect the rate of payments on the group 3 securities. The underlying certificates will be sensitive in varying degrees to:

- the rate of payments of principal (including prepayments) of the related mortgage loans, and
- the priorities for the distribution of principal among the classes of the related underlying series.

As described in the related underlying certificate disclosure documents, the reductions in notional

balances of certain of the underlying certificates included in trust asset group 3 on any payment date are calculated, directly or indirectly, on the basis of schedules; no assurance can be given that the underlying certificates will adhere to their schedules. Further, prepayments on the related mortgage loans may have occurred at rates faster or slower than those initially assumed.

This supplement contains no information as to whether the related classes with which the notional underlying certificates reduce have adhered to any applicable principal balance schedules or whether the underlying certificates otherwise have performed as originally anticipated. Additional information as to the underlying certificates may be obtained by performing an analysis of current principal factors of the underlying certificates in light of applicable information contained in the related underlying certificate disclosure documents.

Up to 10% of the mortgage loans underlying the group 1, 3, 4 and 8 trust assets and up to 100% of the mortgage loans underlying the group 2, 5, 6 and 7 trust assets may be bigher balance mortgage loans. Subject to special pooling parameters set forth in the Ginnie Mae Mortgage-Backed Securities Guide, qualifying federally-insured or guaranteed mortgage loans that exceed certain balance thresholds established by Ginnie Mae ("higher balance mortgage loans") may be included in Ginnie Mae guaranteed pools. There are no historical performance data regarding the prepayment rates for higher balance mortgage loans. If the higher balance mortgage loans prepay faster or slower than expected, the weighted average lives and yields of the related securities are likely to be affected, perhaps significantly. Furthermore, higher balance mortgage loans tend to be concentrated in certain geographic areas, which may experience relatively higher rates of defaults in the event of adverse economic conditions. No assurances can be given about the prepayment experience or performance of the higher balance mortgage loans.

Changes to, or elimination of, LIBOR could adversely affect your investment in the securities. On July 27, 2017, the U.K.-based

Financial Conduct Authority (the announced its intention to cease sustaining LIBOR after 2021. The FCA indicated that it does not intend to sustain LIBOR through using its influence or legal powers beyond that date. It is possible that the ICE Benchmark Administration ("IBA") and the reference banks could continue to produce LIBOR on the current basis after 2021, if they are willing and able to do so, but it cannot be assured that LIBOR will survive in its current form, or at all. In the event IBA ceases to set or publish a rate for LIBOR, the Trustee shall propose a new index for approval by Ginnie Mae based upon comparable information and methodology. The Trustee shall propose an alternative index only if it receives an opinion of counsel that the selection of such alternative index will not cause the related Trust REMIC or REMICs to lose their classification as REMICs for United States federal income tax purposes. The effect of the FCA's decision not to sustain LIBOR, or, if changes are ultimately made to LIBOR, the effect of those changes, cannot be predicted. In addition, it cannot be predicted what alternative index would be chosen should this occur. If LIBOR in its current form does not survive or if an alternative index is chosen, the market value and/or liquidity of securities with distributions or interest rates based on LIBOR could be adversely affected.

The securities may not be a suitable investment for you. The securities, especially the group 3 securities and, in particular, the support, interest only, inverse floating rate, accrual and residual classes, are not suitable investments for all investors.

In addition, although the sponsor intends to make a market for the purchase and sale of the securities after their initial issuance, it has no obligation to do so. There is no assurance that a secondary market will develop, that any secondary market will continue, or that the price at which you can sell an investment in any class will enable you to realize a desired yield on that investment.

You will bear the market risks of your investment. The market values of the classes are likely to fluctuate. These fluctuations may be significant and could result in significant losses to you.

The secondary markets for mortgage-related securities have experienced periods of illiquidity and can be expected to do so in the future. Illiquidity can have a severely adverse effect on the prices of classes that are especially sensitive to prepayment or interest rate risk or that have been structured to meet the investment requirements of limited categories of investors.

The residual securities may experience significant adverse tax timing consequences. Accordingly, you are urged to consult tax advisors and to consider the after-tax effect of ownership of a residual security and the suitability of the residual securities to your investment objectives. See "Certain United States Federal Income Tax Consequences" in this supplement and in the base offering circular.

You are encouraged to consult advisors regarding the financial, legal, tax and other aspects of an investment in the securities. You should not purchase the securities of any class unless you understand and are able to bear the prepayment, yield, liquidity and market risks associated with that class.

The actual characteristics of the underlying mortgage loans will affect the weighted average lives and yields of your securities. The yield and decrement tables in this supplement are based on assumed characteristics which are likely to be different from the actual characteristics. As a result, the yields on your securities could be lower than you expected, even if the mortgage loans prepay at the constant prepayment rates set forth in the applicable table.

It is highly unlikely that the underlying mortgage loans will prepay at any of the prepayment rates assumed in this supplement, or at any constant prepayment rate.

#### THE TRUST ASSETS

#### General

The Sponsor intends to acquire the Trust Assets in privately negotiated transactions prior to the Closing Date and to sell them to the Trust according to the terms of a Trust Agreement between the Sponsor and the Trustee. The Sponsor will make certain representations and warranties with respect to the Trust Assets. All Trust Assets, regardless of whether the assets consist of Trust MBS or the Underlying Certificates, will evidence, directly or indirectly, Ginnie Mae Certificates.

# The Trust MBS (Groups 1, 2, 4, 5, 6, 7 and 8)

The Trust MBS are either:

- 1. Ginnie Mae II MBS Certificates guaranteed by Ginnie Mae, or
- 2. Ginnie Mae Platinum Certificates backed by Ginnie Mae II MBS Certificates and guaranteed by Ginnie Mae.

Each Mortgage Loan underlying a Ginnie Mae II MBS Certificate issued prior to July 1, 2003 bears interest at a Mortgage Rate 0.50% to 1.50% per annum greater than the related Certificate Rate. Each Mortgage Loan underlying a Ginnie Mae II MBS Certificate issued on or after July 1, 2003 bears interest at a Mortgage Rate 0.25% to 0.75% per annum greater than the related Certificate Rate. Ginnie Mae receives a fee (the "Ginnie Mae Certificate Guaranty Fee") for its guaranty of each Ginnie Mae II MBS Certificate of 0.06% per annum of the outstanding principal balance of each related Mortgage Loan. The difference between (a) the Mortgage Rate and (b) the sum of the Certificate Rate and the rate of the Ginnie Mae Certificate Guaranty Fee is used to pay the related servicers of the Mortgage Loans a monthly servicing fee.

# The Underlying Certificates (Group 3)

The Group 3 Trust Assets are Underlying Certificates that represent beneficial ownership interests in one or more separate trusts, the assets of which evidence direct or indirect beneficial ownership interests in certain Ginnie Mae Certificates. Each Underlying Certificate constitutes all or a portion of a class of a separate Series of certificates described in the related Underlying Certificate Disclosure Document. Each Underlying Certificate Disclosure Document may be obtained from the Information Agent as described under "Available Information" in this Supplement, except in the case of Ginnie Mae 2019-001 Class KI, for which this supplement is the Underlying Certificate Disclosure Document. Investors are cautioned that material changes in facts and circumstances may have occurred since the date of each Underlying Certificate Disclosure Document, including changes in prepayment rates, prevailing interest rates and other economic factors, which may limit the usefulness of, and be directly contrary to the assumptions used in preparing the information included in, the offering document. See "Underlying Certificates" in the Base Offering Circular.

Each Underlying Certificate provides for monthly distributions and is further described in the table contained in Exhibit A to this Supplement. The table also sets forth information regarding approximate weighted average remaining terms to maturity, loan ages and mortgage rates of the Mortgage Loans underlying the related Ginnie Mae Certificates.

# The Mortgage Loans

The Mortgage Loans underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans underlying the Underlying Certificates are expected to have, on a weighted average basis, the characteristics set forth in Exhibit A to this Supplement. The Mortgage Loans will consist of first lien, single-family, fixed rate, residential mortgage loans that are insured or guaranteed by the Federal Housing Administration, the United States Department of Veterans Affairs, Rural Development (formerly the Rural Housing Service) or the United States Department of Housing and Urban Development ("HUD"). See "The Ginnie Mae Certificates — General" in the Base Offering Circular.

Specific information regarding the characteristics of the Mortgage Loans underlying the Trust MBS is not available. For purposes of this Supplement, certain assumptions have been made regarding the remaining terms to maturity, loan ages and Mortgage Rates of the Mortgage Loans underlying the Trust MBS. However, the actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans will differ from the characteristics assumed, perhaps significantly. This will be the case even if the weighted average characteristics of the Mortgage Loans are the same as the assumed characteristics. Small differences in the characteristics of the Mortgage Loans can have a significant effect on the Weighted Average Lives and yields of the Securities. See "Risk Factors" and "Yield, Maturity and Prepayment Considerations" in this Supplement.

# The Trustee Fee

The Sponsor will contribute certain Ginnie Mae Certificates in respect of the Trustee Fee. On each Distribution Date, the Trustee will retain all principal and interest distributions received on such Ginnie Mae Certificates in payment of the Trustee Fee.

#### **GINNIE MAE GUARANTY**

The Government National Mortgage Association ("Ginnie Mae"), a wholly-owned corporate instrumentality of the United States of America within HUD, guarantees the timely payment of principal

and interest on the Securities. The General Counsel of HUD has provided an opinion to the effect that Ginnie Mae has the authority to guarantee multiclass securities and that Ginnie Mae guaranties will constitute general obligations of the United States, for which the full faith and credit of the United States is pledged. See "Ginnie Mae Guaranty" in the Base Offering Circular.

#### **DESCRIPTION OF THE SECURITIES**

#### General

The description of the Securities contained in this Supplement is not complete and is subject to, and is qualified in its entirety by reference to, all of the provisions of the Trust Agreement. See "Description of the Securities" in the Base Offering Circular.

#### Form of Securities

Each Class of Securities other than the Residual Securities initially will be issued and maintained, and may be transferred only on the Fedwire Book-Entry System. Beneficial Owners of Book-Entry Securities will ordinarily hold these Securities through one or more financial intermediaries, such as banks, brokerage firms and securities clearing organizations that are eligible to maintain book-entry accounts on the Fedwire Book-Entry System. By request accompanied by the payment of a transfer fee of \$25,000 per Certificated Security to be issued, a Beneficial Owner may receive a Regular Security in certificated form

The Residual Securities will not be issued in book-entry form but will be issued in fully registered, certificated form and may be transferred or exchanged, subject to the transfer restrictions applicable to Residual Securities set forth in the Trust Agreement, at the Corporate Trust Office of the Trustee. See "Description of the Securities — Forms of Securities; Book-Entry Procedures" in the Base Offering Circular.

Each Regular and MX Class (other than the Increased Minimum Denomination Classes) will be issued in minimum dollar denominations of initial principal balance of \$1,000 and integral multiples of \$1 in excess of \$1,000. The Increased Minimum Denomination Classes will be issued in minimum denominations that equal \$100,000 in initial principal or notional balance.

## **Distributions**

Distributions on the Securities will be made on each Distribution Date as specified under "Terms Sheet — Distribution Date" in this Supplement. On each Distribution Date for a Security, or in the case of the Certificated Securities, on the first Business Day after the related Distribution Date, the Distribution Amount will be distributed to the Holders of record as of the related Record Date. Beneficial Owners of Book-Entry Securities will receive distributions through credits to accounts maintained for their benefit on the books and records of the appropriate financial intermediaries. Holders of Certificated Securities will receive distributions by check or, subject to the restrictions set forth in the Base Offering Circular, by wire transfer. See "Description of the Securities — Distributions" and "— Method of Distributions" in the Base Offering Circular.

# **Interest Distributions**

The Interest Distribution Amount will be distributed on each Distribution Date to the Holders of all Classes of Securities entitled to distributions of interest.

• Interest will be calculated on the basis of a 360-day year consisting of twelve 30-day months.

- Interest distributable (or accrued in the case of an Accrual Class) on any Class for any Distribution Date will consist of 30 days' interest on its Class Principal Balance (or Class Notional Balance) as of the related Record Date.
- Investors can calculate the amount of interest to be distributed (or accrued in the case of an Accrual Class) on each Class of Securities for any Distribution Date by using the Class Factors published in the preceding month. See "— Class Factors" below.

# Categories of Classes

For purposes of interest distributions, the Classes will be categorized as shown under "Interest Type" on the front cover of this Supplement and on Schedule I to this Supplement. The abbreviations used in this Supplement to describe the interest entitlements of the Classes are explained under "Class Types" in Appendix I to the Base Offering Circular.

#### Accrual Periods

The Accrual Period for each Regular and MX Class is set forth in the table below:

Class	Accrual Period
Fixed Rate and Delay Classes	The calendar month preceding the related Distribution Date
Floating Rate and Inverse	From the 20th day of the month preceding the month of the related
Floating Rate Classes other	Distribution Date through the 19th day of the month of that
than Delay Classes	Distribution Date

#### Fixed Rate Classes

Each Fixed Rate Class will bear interest at the per annum Interest Rate shown on the front cover of this Supplement or on Schedule I to this Supplement.

# Floating Rate and Inverse Floating Rate Classes

The Floating Rate and Inverse Floating Rate Classes will bear interest as shown under "Terms Sheet — Interest Rates" in this Supplement. The Interest Rates for the Floating Rate and Inverse Floating Rate Classes will be based on LIBOR. The Trustee or its agent will determine LIBOR on the basis of the ICE LIBOR method, as described under "Description of the Securities — Interest Rate Indices — Determination of LIBOR — ICE LIBOR" in the Base Offering Circular.

We can provide no assurance that LIBOR for a Distribution Date accurately represents the offered rate at which one-month U.S. dollar deposits are being quoted to prime banks in the London interbank market, nor that the procedures for calculating LIBOR on the basis of the ICE LIBOR method for one-month U.S. dollar deposits will not change. Any change in LIBOR values resulting from any change in reporting or in the determination of LIBOR may cause LIBOR to fluctuate disproportionately to changes in other market lending rates.

The Trustee's determination of LIBOR and its calculation of the Interest Rates will be final except in the case of clear error. Investors can obtain LIBOR levels and Interest Rates for the current and preceding Accrual Periods from Ginnie Mae's Multiclass Securities e-Access located on Ginnie Mae's website ("e-Access") or by calling the Information Agent at (800) 234-GNMA.

#### Accrual Classes

Each of Classes AZ, BZ, CZ, EZ, KZ, LZ, MZ, PZ, UZ, Z, ZA, ZC, ZK, ZM, ZP and ZU is an Accrual Class. Interest will accrue on the Accrual Classes and be distributed as described under "Terms Sheet — Accrual Classes" in this Supplement.

# **Principal Distributions**

The Principal Distribution Amount for each Group or Subgroup, as applicable, and each Accrual Amount will be distributed to the Holders entitled thereto as described under "Terms Sheet — Allocation of Principal" in this Supplement. Investors can calculate the amount of principal to be distributed with respect to any Distribution Date by using the Class Factors published in the preceding and current months. See "— Class Factors" below.

#### Categories of Classes

For purposes of principal distributions, the Classes will be categorized as shown under "Principal Type" on the front cover of this Supplement and on Schedule I to this Supplement. The abbreviations used in this Supplement to describe the principal entitlements of the Classes are explained under "Class Types" in Appendix I to the Base Offering Circular.

#### Notional Classes

The Notional Classes will not receive principal distributions. For convenience in describing interest distributions, the Notional Classes will have the original Class Notional Balances shown on the front cover of this Supplement and on Schedule I to this Supplement. The Class Notional Balances will be reduced as shown under "Terms Sheet — Notional Classes" in this Supplement.

#### **Residual Securities**

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Group 1, 4, 5, 6, 7 and 8 Issuing REMIC and the beneficial ownership of the Residual Interest in the Group 1, 4, 5, 6, 7 and 8 Pooling REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class R2 Securities will represent the beneficial ownership of the Residual Interest in the Group 2 REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class R3 Securities will represent the beneficial ownership of the Residual Interest in the Group 3 REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class RR, R2 and R3 Securities have no Class Principal Balance and do not accrue interest. The Class RR, R2 and R3 Securities have no Class Principal Balance and do not accrue interest. The Class RR, R2 and R3 Securities will be entitled to receive the proceeds of the disposition of any assets remaining in the related Trust REMICs after the Class Principal Balance or Class Notional Balance of each Class of Regular Securities in the related Security Group or Groups has been reduced to zero. However, any remaining proceeds are not likely to be significant. The Residual Securities may not be transferred to a Plan Investor, a Non-U.S. Person or a Disqualified Organization.

#### **Class Factors**

The Trustee will calculate and make available for each Class of Securities, no later than the day preceding the Distribution Date, the factor (carried out to eight decimal places) that when multiplied by the Original Class Principal Balance (or original Class Notional Balance) of that Class, determines the Class Principal Balance (or Class Notional Balance) after giving effect to the distribution of principal to

be made on the Securities (and any addition to the Class Principal Balance of an Accrual Class) or any reduction of Class Notional Balance on that Distribution Date (each, a "Class Factor").

- The Class Factor for any Class of Securities for each month following the issuance of the Securities will reflect its remaining Class Principal Balance (or Class Notional Balance) after giving effect to any principal distribution (or addition to principal) to be made or any reduction of Class Notional Balance on the Distribution Date occurring in that month.
- The Class Factor for each Class for the month of issuance is 1.00000000.
- The Class Factors for the MX Classes and the Classes of REMIC Securities that are exchangeable for the MX Classes will be calculated assuming that the maximum possible amount of each Class is outstanding at all times, regardless of any exchanges that may occur.
- Based on the Class Factors published in the preceding and current months (and Interest Rates), investors in any Class (other than an Accrual Class) can calculate the amount of principal and interest to be distributed to that Class and investors in an Accrual Class can calculate the total amount of principal to be distributed to (or interest to be added to the Class Principal Balance of) that Class on the Distribution Date in the current month.
- Investors may obtain current Class Factors on e-Access.

See "Description of the Securities — Distributions" in the Base Offering Circular.

#### **Termination**

The Trustee, at its option, may purchase or cause the sale of the Trust Assets and thereby terminate the Trust on any Distribution Date on which the aggregate of the Class Principal Balances of the Securities is less than 1% of the aggregate Original Class Principal Balances of the Securities. On any Distribution Date upon the Trustee's determination that the REMIC status of any Trust REMIC has been lost or that a substantial risk exists that this status will be lost for the then current taxable year, the Trustee will terminate such Trust REMIC and any related Trust REMIC and retire the related Securities. For these purposes, the Trust REMICs and the Securities with corresponding numerical designations are related as follows:

21.10

Trust REMICS	Related Securities
Group 1, 4, 5, 6, 7 and 8 Issuing and Pooling REMICs	Group 1, 4, 5, 6, 7 and 8 Securities
Group 2 REMIC	Group 2 Securities
Group 3 REMIC	Group 3 Securities

Upon any termination of the Trust (or one or more related Trust REMICs), the Holder of any related outstanding Security (other than a Residual or Notional Class Security) will be entitled to receive that Holder's allocable share of the Class Principal Balance of that Class plus any accrued and unpaid interest thereon at the applicable Interest Rate, and any Holder of any related outstanding Notional Class Security will be entitled to receive that Holder's allocable share of any accrued and unpaid interest thereon at the applicable Interest Rate. The Residual Holders will be entitled to their pro rata share of any assets remaining in the related Trust REMICs after payment in full of the amounts described in the foregoing sentence. However, any remaining assets are not likely to be significant.

With respect to each of Security Groups 2 and 3, a Holder of all of the outstanding Regular Securities of any such Security Group and the related Class of Residual Securities shall have the right to purchase the related Trust Assets upon three Business Days' notice (the "Notice Period"). The purchase shall be for cash in an amount equal to (A)(i) the aggregate remaining principal balance of the assets of

such Security Group, but in no event less than the aggregate outstanding principal amount of the Securities of such Security Group, plus (ii) accrued interest on the Securities of such Security Group, less (B) amounts on deposit in the related Trust REMIC, for distribution on the Securities of such Security Group, plus (C) a \$5,000 termination fee payable to the Trustee in connection with each Security Group to be terminated. After the Notice Period, and upon such purchase, the Trustee will terminate the related Trust REMIC. Upon such termination, the Trustee will distribute the cash proceeds of the sale of the related Trust Assets to the Holder of the related Securities (which distribution may be offset against amounts due on the sale of such assets), will cancel the Securities of the related Security Group and cause the removal from the Book-Entry Depository Account of all Classes of the related Security Group, will cancel the related Class of Residual Securities, and will credit the remaining Trust Assets in the related Security Group to the account of the surrendering Holder. Notwithstanding anything to the contrary contained herein, no such termination will be allowed unless the Trustee and Ginnie Mae are provided, at no cost to either the Trustee or Ginnie Mae, an Opinion of Counsel, acceptable to the Trustee and Ginnie Mae, to the effect that such termination constitutes a "qualified liquidation" under the REMIC Provisions, including Section 860F(a)(4) of the Code, and such termination will not result in a disqualification of any Trust REMIC that is not terminated at such time or the imposition of any "prohibited transactions" or "contributions" tax under the REMIC Provisions on any Trust REMIC that is not terminated at such time.

# **Modification and Exchange**

All or a portion of the Classes of REMIC Securities specified on the front cover may be exchanged for a proportionate interest in the related MX Class or Classes shown on Schedule I to this Supplement. Similarly, all or a portion of the related MX Class or Classes may be exchanged for proportionate interests in the related Class or Classes of REMIC Securities and, in the case of Combinations 1 and 2, other related MX Classes. This process may occur repeatedly.

Each exchange may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered.

In the case of Combinations 1 and 2, the related REMIC Securities may be exchanged for proportionate interests in various subcombinations of MX Classes. Similarly, all or a portion of these MX Classes may be exchanged for proportionate interests in the related REMIC Securities or in other subcombinations of the related MX Classes. Each subcombination may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered. See the example under "Description of the Securities — Modification and Exchange" in the Base Offering Circular.

A Beneficial Owner proposing to effect an exchange must notify the Trustee through the Beneficial Owner's Book-Entry Depository participant. This notice must be received by the Trustee not later than two Business Days before the proposed exchange date. The exchange date can be any Business Day other than the last Business Day of the month. The notice must contain the outstanding principal or notional balances of the Securities to be included in the exchange and the proposed exchange date. The notice is required to be delivered to the Trustee by email to USBGNMATeam@USBank.com or in writing at its Corporate Trust Office at U.S. Bank National Association, One Federal Street, 3rd Floor, Boston, MA 02110, Attention: Ginnie Mae REMIC Program Agency Group 2019-001. The Trustee may be contacted by telephone at (617) 603-6451 and by fax at (617) 603-6644.

A fee will be payable to the Trustee in connection with each exchange equal to  $\frac{1}{32}$  of 1% of the outstanding principal balance (or notional balance) of the Securities surrendered for exchange (but not less than \$2,000 or more than \$25,000); provided, however, that no fee will be payable in respect of an

interest only security unless all securities involved in the exchange are interest only securities. The fee must be paid concurrently with the exchange.

The first distribution on a REMIC Security or an MX Security received in an exchange will be made on the Distribution Date in the month following the month of the exchange. The distribution will be made to the Holder of record as of the Record Date in the month of exchange.

See "Description of the Securities — Modification and Exchange" in the Base Offering Circular.

#### YIELD, MATURITY AND PREPAYMENT CONSIDERATIONS

#### General

The prepayment experience of the Mortgage Loans will affect the Weighted Average Lives of and the yields realized by investors in the related Securities.

- The Mortgage Loans do not contain "due-on-sale" provisions, and any Mortgage Loan may be prepaid in full or in part at any time without penalty.
- The rate of payments (including prepayments and payments in respect of liquidations) on the Mortgage Loans is dependent on a variety of economic, geographic, social and other factors, including prevailing market interest rates and general economic factors.

The rate of prepayments with respect to single-family mortgage loans has fluctuated significantly in recent years. Although there is no assurance that prepayment patterns for the Mortgage Loans will conform to patterns for more traditional types of conventional fixed rate mortgage loans, generally:

- if mortgage interest rates fall materially below the Mortgage Rates on any of the Mortgage Loans (giving consideration to the cost of refinancing), the rate of prepayment of those Mortgage Loans would be expected to increase; and
- if mortgage interest rates rise materially above the Mortgage Rates on any of the Mortgage Loans, the rate of prepayment of those Mortgage Loans would be expected to decrease.

In addition, following any Mortgage Loan default and the subsequent liquidation of the underlying Mortgaged Property, the principal balance of the Mortgage Loan will be distributed through a combination of liquidation proceeds, advances from the related Ginnie Mae Issuer and, to the extent necessary, proceeds of Ginnie Mae's guaranty of the Ginnie Mae Certificates. As a result, defaults experienced on the Mortgage Loans will accelerate the distribution of principal of the Securities.

The terms of the Mortgage Loans may be modified to permit, among other things, a partial release of security, which releases a portion of the mortgaged property from the lien securing the related Mortgage Loan. Partial releases of security may allow the related borrower to sell the released property and generate proceeds that may be used to prepay the related Mortgage Loan in whole or in part.

Under certain circumstances, the Trustee has the option to purchase the Trust Assets, thereby effecting early retirement of the Securities. *See "Description of the Securities — Termination" in this Supplement.* 

Investors in the Group 3 Securities are urged to review the discussion under "Risk Factors — *The rate of payments on the underlying certificates will directly affect the rate of payments on the group 3 securities*" in this Supplement.

#### **Accretion Directed Classes**

Classes A, BC, BL, CY, EA, EY, KB, KC, KG, KH, KL, KM, KV, LV, NF, NS, PA, PB, UA, UB, UC, UE, UG, VA, VB, VL and ZA are Accretion Directed Classes. The related Accrual Amounts will be applied to making principal distributions on those Classes as described in this Supplement. Class BI is a Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of the related Accretion Directed Class shown under "Terms Sheet — Notional Classes" in this Supplement.

Each of the Accretion Directed Classes has the AD designation in the suffix position, rather than the prefix position, in its class principal type because it does not have principal payment stability through the applicable pricing prepayment assumption. Classes KV, LV, VA, VB, VL will have principal payment stability only through the prepayment rate shown in the table below. The remaining Accretion Directed Classes are not listed in the table below because, although they are entitled to receive payments from the related Accrual Amounts, they do not have principal payment stability through any prepayment rate significantly higher than 0% PSA, except within any applicable Effective Range.

The Accretion Directed Classes are entitled to principal payments in an amount equal to interest accrued on the related Accrual Classes. With respect to the Classes listed in the table below, the Weighted Average Life of each such Class cannot exceed its Weighted Average Life as shown in the following table under any prepayment scenario, even a scenario where there are no prepayments.

- Moreover, based on the Modeling Assumptions, if the related Mortgage Loans prepay at any
  constant rate at or below the rate for an Accretion Directed Class shown in the table below, the
  Class Principal Balance of such Class would be reduced to zero on, but not before, its Final Distribution Date, and the Weighted Average Life of such Class would equal its maximum Weighted
  Average Life shown in the table below.
- However, the Weighted Average Lives of Classes KV, LV, VA, VB, VL, will be reduced, and may be reduced significantly, at prepayment speeds higher than the constant rates shown in the table below. See "Yield, Maturity and Prepayment Considerations Decrement Tables" in this Supplement.

#### **Accretion Directed Classes**

Class	Maximum Weighted Average Life (in years) <sup>(1)</sup>	Final Distribution Date	Prepayment Rate at or below
KV	6.0	April 2030	189% PSA
LV	6.0	April 2030	198% PSA
VA	6.0	March 2030	227% PSA
VB	16.0	May 2039	82% PSA
VL	16.0	May 2039	68% PSA

<sup>(1)</sup> The maximum Weighted Average Life for each Class shown in this table is based on the Modeling Assumptions and the assumption that the related Mortgage Loans prepay at any constant rate at or below the rate shown in the table for such Class.

The Mortgage Loans will have characteristics that differ from those of the Modeling Assumptions. Therefore, even if the related Mortgage Loans prepay at a rate at or somewhat below the "at or below" rate shown for Class KV, LV, VA, VB or VL, the Class Principal Balance of such Class could be reduced to zero before its Final Distribution Date, and its Weighted Average Life could be shortened.

# Securities that Receive Principal on the Basis of Schedules

As described in this Supplement, each PAC and Scheduled Class will receive principal payments in accordance with a schedule calculated on the basis of, among other things, a Structuring Range. See "Terms Sheet — Scheduled Principal Balances." However, whether any such Class will adhere to its schedule and receive "Scheduled Payments" on a Distribution Date will largely depend on the level of prepayments experienced by the related Mortgage Loans.

Each PAC and Scheduled Class exhibits an Effective Range of constant prepayment rates at which such Class will receive Scheduled Payments. That range may differ from the Structuring Range used to create the related principal balance schedule. Based on the Modeling Assumptions, the *initial* Effective Ranges for the PAC and Scheduled Classes are as follows:

	Initial Effective Ranges
PAC Classes	
A and ZA (in the aggregate)	180% PSA through 300% PSA
BC and BL (in the aggregate)	150% PSA through 300% PSA
CY, EA and EY (in the aggregate)	150% PSA through 250% PSA
PA and PB (in the aggregate)	150% PSA through 250% PSA
PD and PE (in the aggregate)	150% PSA through 300% PSA
PAC I Classes	
NA, ND and NE (in the aggregate)	150% PSA through 300% PSA
NG, NK and NL (in the aggregate)	165% PSA through 300% PSA
PC and PY (in the aggregate)	150% PSA through 245% PSA
PAC II Classes	
CZ and KC (in the aggregate)	240% PSA through 300% PSA
KB and ZK (in the aggregate)	240% PSA through 300% PSA
UD	173% PSA through 248% PSA
Scheduled Classes	
KG, KH and MZ (in the aggregate)	240% PSA through 300% PSA

- The principal payment stability of the PAC Classes will be supported by the related Scheduled and Support Class or Classes.
- The principal payment stability of the PAC I Classes will be supported by the related PAC II and Support Classes.
- The principal payment stability of the PAC II Classes will be supported in part by the related Support Classes.
- The principal payment stability of the Scheduled Classes will be supported by the related Support Classes.

If all of the Classes supporting a given Class are retired before the Class being supported is retired, the outstanding Class will no longer have an Effective Range and will become more sensitive to prepayments on the related Mortgage Loans.

There is no assurance that the related Mortgage Loans will have the characteristics assumed in the Modeling Assumptions, which were used to determine the initial Effective Ranges. If the initial Effective Ranges were calculated using the actual characteristics of the related Mortgage Loans, the initial Effective Ranges could differ from those shown in the above table. Therefore, even if the Mortgage Loans were to prepay at a constant rate within the initial Effective Range shown for any Class in the above table, that Class could fail to receive Scheduled Payments.

Moreover, the related Mortgage Loans will not prepay at any *constant* rate. Non-constant prepayment rates can cause any PAC or Scheduled Class not to receive Scheduled Payments, even if prepayment rates remain within the initial Effective Range for that Class. Further, the Effective Range for any PAC or Scheduled Class can narrow, shift over time or cease to exist depending on the actual characteristics of the related Mortgage Loans.

If the related Mortgage Loans prepay at rates that are generally below the Effective Range for any PAC or Scheduled Class, the amount available to pay principal on the Securities may be insufficient to produce Scheduled Payments on such related PAC or Scheduled Class, and its Weighted Average Life may be extended, perhaps significantly.

If the related Mortgage Loans prepay at rates that are generally above the Effective Range for any PAC or Scheduled Class, its supporting Class or Classes may be retired earlier than that PAC or Scheduled Class, and its Weighted Average Life may be shortened, perhaps significantly.

# **Assumability**

Each Mortgage Loan may be assumed, subject to HUD review and approval, upon the sale of the related Mortgaged Property. See "Yield, Maturity and Prepayment Considerations — Assumability of Government Loans" in the Base Offering Circular.

#### **Final Distribution Date**

The Final Distribution Date for each Class, which is set forth on the front cover of this Supplement or on Schedule I to this Supplement, is the latest date on which the related Class Principal Balance or Class Notional Balance will be reduced to zero.

- The actual retirement of any Class may occur earlier than its Final Distribution Date.
- According to the terms of the Ginnie Mae Guaranty, Ginnie Mae will guarantee payment in full of the Class Principal Balance of each Class of Securities no later than its Final Distribution Date.

# **Modeling Assumptions**

Unless otherwise indicated, the tables that follow have been prepared on the basis of the characteristics of the Underlying Certificates, the priorities of distributions on the Underlying Certificates and the following assumptions (the "Modeling Assumptions"), among others:

- 1. The Mortgage Loans underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets" in the Terms Sheet, except in the case of information set forth under the 0% PSA Prepayment Assumption Rate, for which each Mortgage Loan underlying a Group 1, 2, 4, 5, 6, 7 or 8 Trust Asset is assumed to have an original and a remaining term to maturity of 360 months and a Mortgage Rate of 1.50% per annum higher than the related Certificate Rate.
- 2. The Mortgage Loans prepay at the constant percentages of PSA (described below) shown in the related table.
- 3. Distributions on the Securities are always received on the 20th day of the month, whether or not a Business Day, commencing in February 2019.
  - 4. A termination of the Trust, any Trust REMIC or the Underlying Trusts does not occur.
  - 5. The Closing Date for the Securities is January 30, 2019.
- 6. No expenses or fees are paid by the Trust other than the Trustee Fee, which is paid as described under "The Trust Assets The Trustee Fee" in this Supplement.

- 7. Distributions on the Underlying Certificates are made as described in the related Underlying Certificate Disclosure Documents.
  - 8. Each Class is held from the Closing Date and is not exchanged in whole or in part.

When reading the tables and the related text, investors should bear in mind that the Modeling Assumptions, like any other stated assumptions, are unlikely to be entirely consistent with actual experience.

- For example, most of the Mortgage Loans will not have the characteristics assumed, many Distribution Dates will occur on a Business Day after the 20th day of the month, and the Trustee may cause a termination of the Trust as described under "Description of the Securities Termination" in this Supplement.
- In addition, distributions on the Securities are based on Certificate Factors and Calculated Certificate Factors, as applicable, which may not reflect actual receipts on the Trust Assets.

See "Description of the Securities — Distributions" in the Base Offering Circular.

#### **Decrement Tables**

Prepayments of mortgage loans are commonly measured by a prepayment standard or model. The model used in this Supplement, Prepayment Speed Assumption ("PSA"), is the standard prepayment assumption model of The Securities Industry and Financial Markets Association. PSA represents an assumed rate of prepayment each month relative to the then outstanding principal balance of the Mortgage Loans to which the model is applied. See "Yield, Maturity and Prepayment Considerations — Standard Prepayment Assumption Models" in the Base Offering Circular.

The decrement tables set forth below are based on the assumption that the Mortgage Loans prepay at the indicated percentages of PSA (the "PSA Prepayment Assumption Rates"). As used in the tables, each of the PSA Prepayment Assumption Rates reflects a percentage of the 100% PSA assumed prepayment rate. The Mortgage Loans will not prepay at any of the PSA Prepayment Assumption Rates, and the timing of changes in the rate of prepayments actually experienced on the Mortgage Loans will not follow the pattern described for the PSA assumption.

The decrement tables set forth below illustrate the percentage of the Original Class Principal Balance (or, in the case of a Notional Class, the original Class Notional Balance) that would remain outstanding following the distribution made each specified month for each Regular or MX Class, based on the assumption that the related Mortgage Loans prepay at the PSA Prepayment Assumption Rates. The percentages set forth in the following decrement tables have been rounded to the nearest whole percentage (including rounding down to zero).

The decrement tables also indicate the Weighted Average Life of each Class under each PSA Prepayment Assumption Rate. The Weighted Average Life of each Class is calculated by:

- (a) multiplying the net reduction, if any, of the Class Principal Balance (or the net reduction of the Class Notional Balance, in the case of a Notional Class) from one Distribution Date to the next Distribution Date by the number of years from the date of issuance thereof to the related Distribution Date,
- (b) summing the results, and
- (c) dividing the sum by the aggregate amount of the assumed net reductions in principal balance or notional balance, as applicable, referred to in clause (a).

The information shown for each Notional Class is for illustrative purposes only, as a Notional Class is not entitled to distributions of principal and has no Weighted Average Life. The Weighted Average Life shown for each Notional Class has been calculated on the assumption that a reduction in the Class Notional Balance thereof is a distribution of principal.

The Weighted Average Lives are likely to vary, perhaps significantly, from those set forth in the tables below due to the differences between the actual characteristics of the Mortgage Loans underlying the related Trust Assets and the Modeling Assumptions.

# Percentages of Original Class Principal (or Class Notional) Balances and Weighted Average Lives

Security Group 1 PSA Prepayment Assumption Rates

	Class	ses CA,	CB, CD and IC		G, CH		(	Class C	Y	-	Class	ses EA,	EB, EC, and IE	ED, EG	, EH			Class EY	7	
Distribution Date	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	98	95	95	95	95	100	100	100	100	100	98	95	95	95	95	100	100	100	100	100
January 2021	96	86	86	86	82	100	100	100	100	100	96	86	86	86	81	100	100	100	100	100
January 2022	94	75	75	75	56	100	100	100	100	100	93	74	74	74	54	100	100	100	100	100
January 2023	91	64	64	64	38	100	100	100	100	100	91	62	62	62	35	100	100	100	100	100
January 2024	89	54	54	54	25	100	100	100	100	100	88	52	52	52	22	100	100	100	100	100
January 2025	86	45	45	45	17	100	100	100	100	100	85	43	43	43	13	100	100	100	100	100
January 2026	83	37	37	37	11	100	100	100	100	100	82	35	35	35	7	100	100	100	100	100
January 2027	80	31	31	31	6	100	100	100	100	100	79	28	28	28	2	100	100	100	100	100
January 2028	77	25	25	25	4	100	100	100	100	100	76	22	22	22	0	100	100	100	100	85
January 2029	74	20	20	20	2	100	100	100	100	100	72	17	17	17	0	100	100	100	100	39
January 2030	70	16	16	16	0	100	100	100	100	100	69	12	12	12	0	100	100	100	100	7
January 2031	66	13	13	13	0	100	100	100	100	76	65	9	9	9	0	100	100	100	100	0
January 2032	62	10	10	10	0	100	100	100	100	51	61	6	6	6	0	100	100	100	100	0
January 2033	58	8	8	8	0	100	100	100	100	35	57	4	4	4	0	100	100	100	100	0
January 2034	54	6	6	6	0	100	100	100	100	23	52	2	2	2	0	100	100	100	100	0
January 2035	49	4	4	4	0	100	100	100	100	15	47	0	0	0	0	100	100	100	100	0
January 2036	44	3	3	3	0	100	100	100	100	10	42	0	0	0	0	100	71	71	71	0
January 2037	39	2	2	2	0	100	100	100	100	7	37	0	0	0	0	100	45	45	45	0
January 2038	34	1	1	1	0	100	100	100	100	4	31	0	0	0	0	100	24	24	24	0
January 2039	28	0	0	0	0	100	100	100	100	3	25	0	0	0	0	100	6	6	6	0
January 2040	22	0	0	0	0	100	86	86	86	2	19	0	0	0	0	100	0	0	0	0
January 2041	15	0	0	0	0	100	67	67	67	1	12	0	0	0	0	100	0	0	0	0
January 2042	9 1	0	0	0	0	100 100	50	50 37	50 37	0	2	0	0	0	0	100	0	0	0	0
January 2043	0	0	0	0	0	27	37 27	27	27	0	0	0	0	0	0	35 0	0	0	0	0
January 2044 January 2045	0	0	0	0	0	19	19	19	19	0	0	0	0	0	0	0	0	0	0	0
January 2046	0	0	0	0	0	12	12	12	12	0	0	0	0	0	0	0	0	0	0	0
January 2047	0	0	0	0	0	7	7	7	7	0	0	0	0	0	0	0	0	0	0	0
January 2048	0	0	0	0	0	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average	J	J	0	U	J	U	J	0	0	J	U	J	J	U	J	U	U	U	U	v
Life (years)	14.7	6.5	6.5	6.5	3.9	25.1	23.6	23.6	23.6	13.8	14.3	6.0	6.0	6.0	3.6	23.9	17.9	17.9	17.9	9.8

PSA Prepayment Assumption Rates

								PS	A Prepa	ayment .	Assumpt	ion Rat	es							
		(	Class EZ	Z			Classes	IL, LA	and LB			Class	es IP ar	nd PC			(	Class LI	ī	
Distribution Date	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	104	104	97	92	63	98	95	94	93	87	99	95	95	95	95	99	96	95	94	90
January 2021	108	108	84	68	0	97	85	81	79	62	97	86	86	86	84	97	89	86	83	71
January 2022	113	113	68	39	0	95	74	66	61	35	95	75	75	75	57	96	80	74	70	49
January 2023	117	117	56	18	0	93	63	53	47	15	93	65	65	65	39	95	71	63	58	34
January 2024	122	122	50	6	0	91	53	41	34	2	92	56	56	56	26	93	63	54	49	23
January 2025	127	127	47	1	0	89	44	31	24	0	90	47	47	47	18	91	56	46	40	16
January 2026	132	132	47	0	0	87	36	23	15	0	87	40	40	39	12	90	50	40	34	11
January 2027	138	133	47	0	0	84	29	15	8	0	85	33	33	32	7	88	45	34	28	7
January 2028	143	131	45	0	0	82	23	9	2	0	83	27	27	26	5	86	39	29	23	5
January 2029	149	126	43	0	0	79	17	3	0	0	80	22	22	21	3	84	35	24	19	3
January 2030	155	120	40	0	0	76	12	0	0	0	78	18	18	17	1	81	31	21	16	2
January 2031	161	113	36	0	0	73	7	0	0	0	75	15	15	14	0	79	27	17	13	2
January 2032	168	105	33	0	0	70	3	0	0	0	72	12	12	11	0	77	24	15	11	1
January 2033	175	97	30	0	0	67	0	0	0	0	68	9	9	9	0	74	21	12	9	1
January 2034	182	89	27	0	0	63	0	0	0	0	65	7	7	7	0	71	18	10	7	0
January 2035	189	80	23	0	0	59	0	0	0	0	61	6	6	5	0	68	16	9	6	0
January 2036	197	72	20	0	0	55	0	0	0	0	57	4	4	4	0	65	14	7	5	0
January 2037	205	64	18	0	0	51	0	0	0	0	53	3	3	3	0	61	12	6	4	0
January 2038	214	56	15	0	0	46	0	0	0	0	49	2	2	2	0	58	10	5	3	0
January 2039	222	49	13	0	0	41	0	0	0	0	44	1	1	1	0	54	8	4	2	0
January 2040	231	42	11	0	0	36	0	0	0	0	39	1	1	1	0	50	7	3	2	0
January 2041	241	35	9	0	0	31	0	0	0	0	34	0	0	0	0	46	6	2	1	0
January 2042	251	29	7	0	0	25	0	0	0	0	29	0	0	0	0	41	5	2	1	0
January 2043	261	24	6	0	0	19	0	0	0	0	23	0	0	0	0	36	4	1	1	0
January 2044	242	19	4	0	0	12	0	0	0	0	17	0	0	0	0	31	3	1	1	0
January 2045	200	14	3	0	0	5	0	0	0	0	10	0	0	0	0	26	2	1	0	0
January 2046	155	10	2	0	0	0	0	0	0	0	3	0	0	0	0	20	1	1	0	0
January 2047	106	6	1	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0
January 2048	55	3	1	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	27.4	18.2	9.3	2.7	1.1	16.8	5.9	4.7	4.1	2.5	17.3	6.8	6.8	6.7	4.0	19.3	8.8	7.1	6.3	3.7

Security Group 1 PSA Prepayment Assumption Rates

		(	Class LS	6			(	Class LV	7			(	Class LY	7			(	Class LZ	:	_
Distribution Date	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	99	96	95	94	90	93	93	93	93	93	100	100	100	100	100	104	104	104	104	104
January 2021	97	89	85	83	70	85	85	85	85	85	100	100	100	100	100	107	107	107	107	107
January 2022	96	79	73	70	49	77	77	77	77	77	100	100	100	100	100	111	111	111	111	111
January 2023	95	71	63	58	33	69	69	69	69	69	100	100	100	100	100	115	115	115	115	115
January 2024	93	63	54	48	23	60	60	60	60	60	100	100	100	100	100	119	119	119	119	119
January 2025	91	56	46	40	16	51	51	51	51	0	100	100	100	100	73	123	123	123	123	123
January 2026	90	50	39	33	11	42	42	42	42	0	100	100	100	100	50	128	128	128	128	101
January 2027	88	44	34	28	7	33	33	33	33	0	100	100	100	100	34	132	132	132	132	69
January 2028	86	39	29	23	5	23	23	23	23	0	100	100	100	100	23	137	137	137	137	47
January 2029	84	35	24	19	3	13	13	13	0	0	100	100	100	88	16	142	142	142	142	32
January 2030	81	31	21	16	2	2	2	0	0	0	100	100	95	72	11	147	147	147	147	22
January 2031	79	27	17	13	2	0	0	0	0	0	100	100	81	59	7	152	152	152	121	15
January 2032	77	24	15	11	1	0	0	0	0	0	100	100	68	49	5	158	158	138	99	10
January 2033	74	21	12	9	1	0	0	0	0	0	100	96	57	40	3	163	163	116	81	7
January 2034	71	18	10	7	0	0	0	0	0	0	100	83	48	32	2	169	169	97	66	4
January 2035	68	16	9	6	0	0	0	0	0	0	100	72	40	26	1	175	147	80	53	3
January 2036	65	13	7	5	0	0	0	0	0	0	100	62	33	21	1	181	127	67	43	2
January 2037	61	12	6	4	0	0	0	0	0	0	100	53	27	17	1	188	108	55	34	1
January 2038	58	10	5	3	0	0	0	0	0	0	100	45	22	13	0	194	92	45	27	1
January 2039	54	8	4	2	0	0	0	0	0	0	100	38	18	11	0	201	78	36	21	1
January 2040	50	7	3	2	0	0	0	0	0	0	100	32	14	8	0	203	65	29	17	0
January 2041	46	6	2	1	0	0	0	0	0	0	100	26	11	6	0	203	54	23	13	0
January 2042	41	5	2	1	0	0	0	0	0	0	100	21	9	5	0	203	43	18	10	0
January 2043	36	4	1	1	0	0	0	0	0	0	100	17	7	4	0	203	34	14	7	0
January 2044	31	3	1	1	0	0	0	0	0	0	100	13	5	3	0	203	26	10	5	0
January 2045	26	2	1	0	0	0	0	0	0	0	100	10	3	2	0	203	19	7	4	0
January 2046	20	1	0	0	0	0	0	0	0	0	91	6	2	1	0	185	13	5	2	0
January 2047	14	1	0	0	0	0	0	0	0	0	63	4	1	1	0	127	8	3	1	0
January 2048	7	0	0	0	0	0	0	0	0	0	32	1	0	0	0	65	3	1	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	19.3	8.8	7.1	6.3	3.7	6.0	6.0	6.0	5.8	4.3	28.4	19.3	15.9	14.1	7.8	28.4	20.3	17.3	15.6	9.0

PSA Prepayment Assumption Rates	PSA I	A Prepayment	Assumption	Rates
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								Fe	A FICE	ayment 2	assumpt	ion Kai	cs							
		(	Class P	Y			(	Class SA	1			(	Class SM	1		•	Classes	UA, UE	and UC	j.
Distribution Date	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	100	100	100	99	96	95	94	90	99	96	95	95	91	100	100	95	89	53
January 2021	100	100	100	100	100	97	89	85	83	70	97	89	86	84	72	100	100	83	65	0
January 2022	100	100	100	100	100	96	79	73	70	49	96	80	74	71	50	100	100	70	38	0
January 2023	100	100	100	100	100	95	71	63	58	33	95	71	64	59	34	100	100	60	19	0
January 2024	100	100	100	100	100	93	63	54	48	23	93	64	55	49	24	100	100	53	6	0
January 2025	100	100	100	100	100	91	56	46	40	16	91	57	47	41	16	100	100	49	0	0
January 2026	100	100	100	100	100	90	50	39	34	11	90	51	40	34	11	100	100	45	0	0
January 2027	100	100	100	100	100	88	44	34	28	7	88	45	34	28	8	100	100	44	0	0
January 2028	100	100	100	100	100	86	39	29	23	5	86	40	29	23	5	100	100	42	0	0
January 2029	100	100	100	100	100	84	35	24	19	3	84	35	25	19	4	100	100	40	0	0
January 2030	100	100	100	100	100	81	31	21	16	2	81	31	21	16	2	100	100	37	0	0
January 2031	100	100	100	100	100	79	27	17	13	2	79	27	18	13	2	100	100	34	0	0
January 2032	100	100	100	100	84	77	24	15	11	1	77	24	15	11	1	100	100	31	0	0
January 2033	100	100	100	100	57	74	21	12	9	1	74	21	12	9	1	100	99	28	0	0
January 2034	100	100	100	100	38	71	18	10	7	0	71	18	10	7	0	100	90	25	0	0
January 2035	100	100	100	100	25	68	16	9	6	0	68	16	9	6	0	100	82	22	0	0
January 2036	100	100	100	100	17	65	13	7	5	0	65	14	7	5	0	100	73	19	0	0
January 2037	100	100	100	100	11	61	12	6	4	0	61	12	6	4	0	100	65	17	0	0
January 2038	100	100	100	100	7	58	10	5	3	0	58	10	5	3	0	100	57	14	0	0
January 2039	100	100	100	100	5	54	8	4	2	0	54	8	4	2	0	100	49	12	0	0
January 2040	100	100	100	100	3	50	7	3	2	0	50	7	3	2	0	100	42	10	0	0
January 2041	100	100	100	100	2	46	6	2	1	0	46	6	3	1	0	100	36	8	0	0
January 2042	100	90	90	83	1	41	5	2	1	0	41	5	2	1	0	100	30	7	0	0
January 2043	100	67	67	62	1	36	4	1	1	0	36	4	2	1	0	100	24	5	0	0
January 2044	100	48	48	44	0	31	3	1	1	0	31	3	1	1	0	100	19	4	0	0
January 2045	100	33	33	30	0	26	2	1	0	0	26	2	1	0	0	100	14	3	0	0
January 2046	100	21	21	19	0	20	1	1	0	0	20	1	1	0	0	100	10	2	0	0
January 2047	12	12	12	11	0	14	1	0	0	0	14	1	0	0	0	100	6	1	0	0
January 2048	4	4	4	4	0	7	0	0	0	0	7	0	0	0	0	58	2	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	27.7	25.3	25.3	25.1	15.0	19.3	8.8	7.1	6.3	3.7	19.3	8.9	7.2	6.4	3.7	29.1	20.5	9.1	2.7	1.0

Security Group 1 PSA Prepayment Assumption Rates

	Class UD							Class UZ	:				Class VI		
Distribution Date	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%	0%	150%	210%	250%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	91	91	91	104	104	104	104	104	100	100	100	100	100
January 2021	100	100	70	70	0	107	107	107	107	0	100	100	100	100	100
January 2022	100	100	45	45	0	111	111	111	111	0	100	100	100	100	100
January 2023	100	100	26	26	0	115	115	115	115	0	100	100	100	100	100
January 2024	100	100	12	12	0	119	119	119	119	0	100	100	100	100	100
January 2025	100	100	2	0	0	123	123	123	0	0	100	100	100	100	45
January 2026	100	100	0	0	0	128	128	128	0	0	100	100	100	100	0
January 2027	100	100	0	0	0	132	132	132	0	0	100	100	100	100	0
January 2028	100	94	0	0	0	137	137	137	0	0	100	100	100	100	0
January 2029	100	81	0	0	0	142	142	142	0	0	100	100	100	66	0
January 2030	100	64	0	0	0	147	147	147	0	0	100	100	85	0	0
January 2031	100	44	0	0	0	152	152	152	0	0	93	93	21	0	0
January 2032	100	21	0	0	0	158	158	158	0	0	83	83	0	0	0
January 2033	100	0	0	0	0	163	163	163	0	0	73	57	0	0	0
January 2034	100	0	0	0	0	169	169	169	0	0	62	1	0	0	0
January 2035	100	0	0	0	0	175	175	175	0	0	51	0	0	0	0
January 2036	100	0	0	0	0	181	181	181	0	0	40	0	0	0	0
January 2037	100	0	0	0	0	188	188	188	0	0	28	0	0	0	0
January 2038	100	0	0	0	0	194	194	194	0	0	16	0	0	0	0
January 2039	100	0	0	0	0	201	201	201	0	0	3	0	0	0	0
January 2040	100	0	0	0	0	208	208	208	0	0	0	0	0	0	0
January 2041	100	0	0	0	0	216	216	216	0	0	0	0	0	0	0
January 2042	100	0	0	0	0	223	223	223	0	0	0	0	0	0	0
January 2043	100	0	0	0	0	231	231	231	0	0	0	0	0	0	0
January 2044	100	0	0	0	0	240	240	240	0	0	0	0	0	0	0
January 2045	100	0	0	0	0	248	248	248	0	0	0	0	0	0	0
January 2046	100	0	0	0	0	257	257	257	0	0	0	0	0	0	0
January 2047	36	0	0	0	0	266	266	266	0	0	0	0	0	0	0
January 2048	0	0	0	0	0	276	276	276	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	27.9	11.6	3.0	3.0	1.6	30.0	29.7	29.7	5.9	1.6	16.0	13.9	11.6	10.3	6.0

Security Group 2 PSA Prepayment Assumption Rates

		Cla	asses AF and	AS	
Distribution Date	0%	200%	350%	500%	700%
Initial Percent	100	100	100	100	100
January 2020	99	94	91	88	84
January 2021	97	84	76	67	56
January 2022	96	73	59	46	32
January 2023	95	63	46	32	18
January 2024	93	54	35	22	10
January 2025	91	47	27	15	6
January 2026	90	40	21	10	3 2
January 2027	88	35	16	7	2
January 2028	86	30	12	5	1
January 2029	84	25	10	3	1
January 2030	81	22	7	2	0
January 2031	79	18	6	1	0
January 2032	77	16	4	1	0
January 2033	74	13	3	1	0
January 2034	71	11	2	0	0
January 2035	68	9	2	0	0
January 2036	65	8	1	0	0
January 2037	61	6	1	0	0
January 2038	58	5	1	0	0
January 2039	54	4	1	0	0
January 2040	50	3	0	0	0
January 2041	46	3 2	0	0	0
January 2042	41		0	0	0
January 2043	36	2	0	0	0
January 2044	31	1	0	0	0
January 2045	26	1	0	0	0
January 2046	20	1	0	0	0
January 2047	14	0	0	0	0
January 2048	7	0	0	0	0
January 2049	0	0	0	0	0
Weighted Average Life (years)	19.3	7.2	4.7	3.5	2.7
()>	-7.5	/	***/	5.5	

Security Group 3 PSA Prepayment Assumption Rates

			Class IO		
Distribution Date	0%	100%	200%	300%	400%
Initial Percent	100	100	100	100	100
January 2020	98	95	92	90	87
January 2021	96	88	80	72	65
January 2022	94	79	66	54	43
January 2023	92	71	54	39	27
January 2024	89	63	43	27	14
January 2025	87	56	34	17	6
January 2026	84	50	26	10	4
January 2027	81	43	19	6	2
January 2028	78	38	13	4	1
January 2029	75	32	8	3	1
January 2030	72	27	6	2	1
January 2031	69	22	4	1	0
January 2032	65	18	3	1	Õ
January 2033	61	14	2	1	Õ
January 2034	57	10	2	0	0
January 2035	53	7	1	0	0
January 2036	49	5	1	Ö	Õ
January 2037	44	4	1	0	0
January 2038	39	4	ī	Õ	Õ
January 2039	34	3	0	Ö	Õ
January 2040	29	2	0	Õ	Õ
January 2041	23	2	Õ	0	Õ
January 2042	18	1	Õ	Ö	Õ
January 2043	12	ī	Õ	Õ	Õ
January 2044	8	ī	Õ	Õ	Õ
January 2045	5	i	ŏ	ŏ	Ŏ
January 2046	3	0	Õ	Õ	Õ
January 2047	ĭ	Ö	Ö	ŏ	Ő
January 2048	0	ŏ	ŏ	ŏ	ő
January 2049	ŏ	Ö	Ö	ŏ	Ő
Weighted Average	0	· ·	V	0	· ·
Life (years)	15.7	7.9	5.1	3.8	3.0
me (jeuno)	± J./	1.7	J.1	5.0	5.0

Security Group 4
PSA Prepayment Assumption Rates

		(	Class Ca	Z			Class	es FB a	nd SB			Class	es FC a	nd SC			Classe	s FD ar	nd SD	
Distribution Date	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	103	103	103	103	103	94	81	73	70	48	100	100	100	100	100	94	82	73	71	48
January 2021	106	106	106	106	106	87	46	16	9	0	100	100	100	100	84	88	47	17	9	0
January 2022	109	109	109	109	0	80	0	0	0	0	100	100	86	83	54	82	1	0	0	0
January 2023	113	113	113	113	0	73	0	0	0	0	100	89	71	67	34	75	0	0	0	0
January 2024	116	116	116	116	0	65	0	0	0	0	100	80	58	54	21	68	0	0	0	0
January 2025	120	120	120	120	0	57	0	0	0	0	100	71	48	43	13	60	0	0	0	0
January 2026	123	123	123	123	0	48	0	0	0	0	100	63	39	35	8	52	0	0	0	0
January 2027	127	127	0	0	0	39	0	0	0	0	100	56	32	28	5	43	0	0	0	0
January 2028	131	131	0	0	0	29	0	0	0	0	100	50	26	22	3	34	0	0	0	0
January 2029	135	135	0	0	0	18	0	0	0	0	100	44	21	18	2	24	0	0	0	0
January 2030	139	139	0	0	0	7	0	0	0	0	100	39	17	14	1	13	0	0	0	0
January 2031	143	143	0	0	0	0	0	0	0	0	99	34	14	11	1	2	0	0	0	0
January 2032	148	148	0	0	0	0	0	0	0	0	96	30	11	9	0	0	0	0	0	0
January 2033	152	152	0	0	0	0	0	0	0	0	92	26	9	Ź	0	0	0	0	0	0
January 2034	157	157	0	0	0	0	0	0	0	0	89	23	7	5	0	0	0	0	0	0
January 2035	162	162	0	0	0	0	0	0	0	0	85	20	6	4	0	0	0	0	0	0
January 2036	166	166	0	0	0	0	0	0	0	0	81	17	5	3	0	0	0	0	0	0
January 2037	171	171	0	0	0	0	0	0	0	0	77	15	4	3	0	0	0	0	0	0
January 2038	177	177	0	0	0	0	0	0	0	0	72	13	3	2	0	0	0	0	0	0
January 2039	182	0	0	0	0	0	0	0	0	0	68	11	2	1	0	0	0	0	0	0
January 2040	188	0	0	0	0	0	0	0	0	0	62	9	2	1	0	0	0	0	0	0
January 2041	193	0	0	0	0	0	0	0	0	0	57	7	1	1	0	0	0	0	0	0
January 2042	199	0	0	0	0	0	0	0	0	0	51	6	1	1	0	0	0	0	0	0
January 2043	205	0	0	0	0	0	0	0	0	0	45	5	1	0	0	0	0	0	0	0
January 2044	212	0	0	0	0	0	0	0	0	0	39	4	1	0	0	0	0	0	0	0
January 2045	218	0	0	0	0	0	0	0	0	0	32	3	0	0	0	0	0	0	0	0
January 2046	225	0	0	0	0	0	0	0	0	0	25	2	0	0	0	0	0	0	0	0
January 2047	231	0	0	0	0	0	0	0	0	0	17	1	0	0	0	0	0	0	0	0
January 2048	0	Õ	Ö	Ŏ	Ŏ	Ö	Ö	Ö	Õ	Õ	9	1	Õ	Õ	Õ	Ö	Õ	Õ	Ö	Õ
January 2049	Ö	0	0	0	Ö	0	0	0	0	Õ	Ó	0	0	Õ	0	0	Õ	Õ	0	Õ
Weighted Average	-													-				-		
Life (years)	28.9	19.5	7.1	7.1	2.1	6.5	1.8	1.4	1.3	0.9	22.5	10.7	7.2	6.6	3.8	6.9	1.8	1.4	1.3	0.9

Security Group 4
PSA Prepayment Assumption Rates

		Class	es FE a	nd SE			(	Class FM	1			Classe	es FN ar	nd NP			(	Class KI	3	
Distribution Date	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	100	100	100	99	96	95	94	90	99	96	95	94	90	100	100	91	91	91
January 2021	100	100	100	100	84	97	89	83	82	67	98	89	83	82	68	100	100	69	69	0
January 2022	100	100	86	83	54	96	80	69	66	43	96	80	69	66	43	100	100	43	43	0
January 2023	100	90	71	67	34	95	72	57	53	27	95	72	57	54	27	100	100	24	24	0
January 2024	100	80	59	54	21	93	64	47	43	17	94	64	47	43	17	100	100	11	11	0
January 2025	100	72	48	43	13	91	57	38	34	11	92	57	38	35	11	100	100	3	3	0
January 2026	100	64	39	35	8	90	51	31	28	7	90	51	32	28	7	100	100	0	0	0
January 2027	100	57	32	28	5	88	45	26	22	4	89	45	26	22	4	100	100	0	0	0
January 2028	100	50	26	22	3	86	40	21	18	3	87	40	21	18	3	100	100	0	0	0
January 2029	100	45	22	18	2	84	35	17	14	2	85	36	17	14	2	100	100	0	0	0
January 2030	100	39	18	14	1	81	31	14	11	1	83	32	14	11	1	100	99	0	0	0
January 2031	100	35	14	11	1	79	27	11	9	1	80	28	11	9	1	100	88	0	0	0
January 2032	97	31	12	9	0	77	24	9	7	0	78	24	9	7	0	100	76	0	0	0
January 2033	94	27	9	7	0	74	21	7	6	0	75	21	7	6	0	100	63	0	0	0
January 2034	91	23	7	6	0	71	18	6	4	0	73	19	6	4	0	100	51	0	0	0
January 2035	87	20	6	4	0	68	16	5	3	0	70	16	5	3	0	100	39	0	0	0
January 2036	83	18	5	3	0	65	14	4	3	0	66	14	4	3	0	100	27	0	0	0
January 2037	79	15	4	3	0	61	12	3	2	0	63	12	3	2	0	100	16	0	0	0
January 2038	74	13	3	2	0	58	10	2	2	0	59	10	2	2	0	100	6	0	0	0
January 2039	70	11	2	2	0	54	9	2	1	0	56	9	2	1	0	100	0	0	0	0
January 2040	64	9	2	1	0	50	7	1	1	0	52	7	1	1	0	100	0	0	0	0
January 2041	59	8	1	1	0	46	6	1	1	0	47	6	1	1	0	100	0	0	0	0
January 2042	53	6	1	1	0	41	5	1	0	0	43	5	1	1	0	100	0	0	0	0
January 2043	47	5	1	0	0	36	4	1	0	0	38	4	1	0	0	100	0	0	0	0
January 2044	40	4	1	0	0	31	3	0	0	0	32	3	0	0	0	100	0	0	0	0
January 2045	33	3	0	0	0	26	2	0	0	0	27	2	0	0	0	100	0	0	0	0
January 2046	26	2	0	0	0	20	2	0	0	0	21	2	0	0	0	100	0	0	0	0
January 2047	18	1	0	0	0	14	1	0	0	0	14	1	0	0	0	50	0	0	0	0
January 2048	9	1	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0
January 2049	Ó	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	22.8	10.8	7.2	6.7	3.8	19.3	8.9	6.0	5.6	3.2	19.6	9.0	6.1	5.6	3.2	28.0	15.2	2.9	2.9	1.5

PSA Prepayment Assumption Rates

		(	Class K0	С			(	lass K	Z.			(	lass NA				(	lass NE	3	
Distribution Date	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	91	91	91	104	104	104	104	104	98	94	94	94	94	98	95	95	95	95
January 2021	100	100	70	70	8	108	108	108	108	108	96	84	84	84	84	97	86	86	86	86
January 2022	100	100	44	44	0	112	112	112	112	0	94	70	70	70	49	95	73	73	73	55
January 2023	100	100	25	25	0	116	116	116	116	0	92	57	57	57	25	93	62	62	62	33
January 2024	100	100	12	12	0	121	121	121	121	0	90	45	45	45	9	91	52	52	52	20
January 2025	100	100	4	4	0	125	125	125	125	0	87	35	35	35	0	89	42	42	42	11
January 2026	100	100	0	0	0	130	130	130	130	0	84	25	25	25	0	86	34	34	34	6
January 2027	100	99	0	0	0	135	135	135	1	0	82	17	17	17	0	84	27	27	27	3
January 2028	100	95	0	0	0	140	140	140	1	0	79	10	10	10	0	81	21	21	21	1
January 2029	100	88	0	0	0	145	145	145	1	0	75	5	5	5	0	78	16	16	16	0
January 2030	100	80	0	0	0	151	151	151	1	0	72	1	1	1	0	75	12	12	12	0
January 2031	100	70	0	0	0	157	157	157	1	0	68	0	0	0	0	72	9	9	9	0
January 2032	100	60	0	0	0	163	163	163	1	0	65	0	0	0	0	69	6	6	6	0
January 2033	100	50	0	0	0	169	169	169	1	0	61	0	0	0	0	65	4	4	4	0
January 2034	100	40	0	0	0	175	175	175	1	0	56	0	0	0	0	61	3	3	3	0
January 2035	100	30	0	0	0	182	182	182	1	0	52	0	0	0	0	57	2	2	2	0
January 2036	100	21	0	0	0	189	189	189	1	0	47	0	0	0	0	53	1	1	1	0
January 2037	100	12	0	0	0	196	196	196	1	0	42	0	0	0	0	48	0	0	0	0
January 2038	100	4	0	0	0	204	204	204	1	0	36	0	0	0	0	44	0	0	0	0
January 2039	100	0	0	0	0	211	211	211	1	0	31	0	0	0	0	39	0	0	0	0
January 2040	100	0	0	0	0	220	220	220	1	0	24	0	0	0	0	33	0	0	0	0
January 2041	100	0	0	0	0	228	228	228	1	0	18	0	0	0	0	27	0	0	0	0
January 2042	100	0	0	0	0	237	237	237	1	0	11	0	0	0	0	21	0	0	0	0
January 2043	100	0	0	0	0	246	246	246	1	0	4	0	0	0	0	15	0	0	0	0
January 2044	100	0	0	0	0	255	255	255	1	0	0	0	0	0	0	8	0	0	0	0
January 2045	100	0	0	0	0	265	265	265	1	0	0	0	0	0	0	0	0	0	0	0
January 2046	77	0	0	0	0	275	275	275	1	0	0	0	0	0	0	0	0	0	0	0
January 2047	37	0	0	0	0	285	285	285	1	0	0	0	0	0	0	0	0	0	0	0
January 2048	0	0	0	0	0	296	296	272	1	0	0	0	0	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average												, _								- /
Life (years)	27.7	14.0	3.0	3.0	1.6	30.0	29.9	29.4	7.3	2.1	15.1	4.9	4.9	4.9	3.1	16.3	6.0	6.0	6.0	3.6

Security Group 4
PSA Prepayment Assumption Rates

	Class NC				Class ND						(	Class NI		Classes NF and NS						
Distribution Date	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	98	95	95	95	95	100	100	100	100	100	100	100	100	100	100	100	100	92	90	71
January 2021	97	86	86	86	86	100	100	100	100	100	100	100	100	100	100	100	100	74	67	5
January 2022	95	74	74	74	56	100	100	100	100	100	100	100	100	100	100	100	100	52	40	0
January 2023	93	63	63	63	35	100	100	100	100	100	100	100	100	100	100	100	100	36	21	0
January 2024	91	53	53	53	22	100	100	100	100	100	100	100	100	100	100	100	100	25	9	0
January 2025	89	44	44	44	14	100	100	100	100	98	100	100	100	100	100	100	100	19	2	0
January 2026	87	36	36	36	9	100	100	100	100	52	100	100	100	100	100	100	100	16	0	0
January 2027	84	29	29	29	5	100	100	100	100	23	100	100	100	100	100	100	99	15	0	0
January 2028	82	23	23	23	3	100	100	100	100	5	100	100	100	100	100	100	96	14	0	0
January 2029	79	18	18	18	2	100	100	100	100	0	100	100	100	100	74	100	92	13	0	0
January 2030	76	15	15	15	1	100	100	100	100	0	100	100	100	100	46	100	87	11	0	0
January 2031	73	12	12	12	1	100	78	78	78	0	100	100	100	100	29	100	80	10	0	0
January 2032	70	9	9	9	0	100	56	56	56	0	100	100	100	100	18	100	74	9	0	0
January 2033	66	7	7	7	0	100	39	39	39	0	100	100	100	100	11	100	67	8	0	0
January 2034	62	6	6	6	0	100	25	25	25	0	100	100	100	100	7	100	61	7	0	0
January 2035	58	4	4	4	0	100	14	14	14	0	100	100	100	100	4	100	54	6	0	0
January 2036	54	3	3	3	0	100	5	5	5	0	100	100	100	100	2	100	48	5	0	0
January 2037	50	3	3	3	0	100	0	0	0	0	100	94	94	94	1	100	42	4	0	0
January 2038	45	2	2	2	0	100	0	0	0	0	100	72	72	72	1	100	37	3	0	0
January 2039	40	2	2	2	0	100	0	0	0	0	100	55	55	55	1	100	32	3	0	0
January 2040	35	1	1	1	0	100	0	0	0	0	100	42	42	42	0	100	27	2	0	0
January 2041	29	1	1	1	0	100	0	0	0	0	100	31	31	31	0	100	23	2	0	0
January 2042	23	1	1	1	0	100	0	0	0	0	100	23	23	23	0	100	19	1	0	0
January 2043	17	0	0	0	0	100	0	0	0	0	100	16	16	16	0	100	15	1	0	0
January 2044	10	0	0	0	0	68	0	0	0	0	100	11	11	11	0	100	12	1	0	0
January 2045	3	0	0	0	0	4	0	0	0	0	100	8	8	8	0	100	9	0	0	0
January 2046	0	0	0	0	0	0	0	0	0	0	5	5	5	5	0	85	6	0	0	0
January 2047	0	0	0	0	0	0	0	0	0	0	3	3	3	3	0	59	4	0	0	0
January 2048	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	30	2	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	16.6	6.4	6.4	6.4	3.8	25.3	13.7	13.7	13.7	7.3	26.4	21.1	21.1	21.1	11.5	28.3	17.4	4.8	2.8	1.3

PSA Prepayment Assumption Rates	PSA :	A Prepayment	Assumption	Rates
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	Class NG Class NH Class NJ																			
	Class NG					Class NH							Class NK							
Distribution Date	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	98	95	95	95	95	99	95	95	95	95	99	95	95	95	95	100	100	100	100	100
January 2021	97	85	84	84	83	97	86	85	85	84	97	87	86	86	85	100	100	100	100	100
January 2022	95	72	70	70	48	95	75	73	73	53	96	75	73	73	54	100	100	100	100	100
January 2023	93	60	57	57	25	94	64	61	61	33	94	65	62	62	34	100	100	100	100	100
January 2024	91	49	45	45	10	92	54	51	51	20	92	55	52	52	21	100	100	100	100	100
January 2025	89	39	35	35	1	90	45	42	42	12	90	46	43	43	13	100	100	100	100	100
January 2026	86	30	26	26	0	88	37	34	34	7	88	39	35	35	8	100	100	100	100	61
January 2027	84	22	18	18	0	85	30	27	27	3	86	31	28	28	5	100	100	100	100	31
January 2028	81	14	11	11	0	83	24	21	21	1	83	25	22	22	3	100	100	100	100	12
January 2029	78	8	6	6	0	81	18	16	16	0	81	19	18	18	2	100	100	100	100	0
January 2030	75	2	2	2	0	78	12	12	12	0	78	14	14	14	1	100	100	100	100	0
January 2031	72	0	0	0	0	75	9	9	9	0	75	11	11	11	1	100	88	88	88	0
January 2032	68	0	0	0	0	72	7	7	7	0	72	9	9	9	0	100	66	66	66	0
January 2033	65	0	0	0	0	68	5	5	5	0	69	7	7	7	0	100	48	48	48	0
January 2034	61	0	0	0	0	65	4	4	4	0	66	6	6	6	0	100	34	34	34	0
January 2035	56	0	0	0	0	61	2	2	2	0	62	4	4	4	0	100	22	22	22	0
January 2036	52	0	0	0	0	57	1	1	1	0	58	3	3	3	0	100	13	13	13	0
January 2037	47	0	0	0	0	53	1	1	1	0	54	3	3	3	0	100	6	6	6	0
January 2038	42	0	0	0	0	48	0	0	0	0	49	2	2	2	0	100	0	0	0	0
January 2039	36	0	0	0	0	43	0	0	0	0	44	2	2	2	0	100	0	0	0	0
January 2040	31	0	0	0	0	38	0	0	0	0	39	1	1	1	0	100	0	0	0	0
January 2041	24	0	0	0	0	32	0	0	0	0	34	1	1	1	0	100	0	0	0	0
January 2042	18	0	0	0	0	26	0	0	0	0	28	1	1	1	0	100	0	0	0	0
January 2043	10	0	0	0	0	20	0	0	0	0	22	0	0	0	0	100	0	0	0	0
January 2044	3	0	0	0	0	13	0	0	0	0	15	0	0	0	0	100	0	0	0	0
January 2045	0	0	0	0	0	6	0	0	0	0	8	0	0	0	0	57	0	0	0	0
January 2046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
January 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
January 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	16.0	5.2	5.0	5.0	3.1	17.1	6.2	6.0	6.0	3.6	17.3	6.5	6.3	6.3	3.8	26.1	14.3	14.3	14.3	7.6

Security Group 4
PSA Prepayment Assumption Rates

		(	Class N	Ĺ			(	Class SI	ζ.			(	Class UI	3			(	Class UC		
Distribution Date	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	100	100	100	100	100	100	100	100	100	100	94	89	32	100	100	94	89	32
January 2021	100	100	100	100	100	100	100	100	100	84	100	100	81	63	0	100	100	81	62	0
January 2022	100	100	100	100	100	100	100	86	83	54	100	100	66	33	0	100	100	66	33	0
January 2023	100	100	100	100	100	100	90	71	67	34	100	100	56	14	0	100	100	56	14	0
January 2024	100	100	100	100	100	100	80	58	54	21	100	100	50	4	0	100	100	50	4	0
January 2025	100	100	100	100	100	100	71	48	43	13	100	100	48	0	0	100	100	48	0	0
January 2026	100	100	100	100	100	100	64	39	35	8	100	100	47	0	0	100	100	47	0	0
January 2027	100	100	100	100	100	100	56	32	28	5	100	100	45	0	0	100	100	44	0	0
January 2028	100	100	100	100	100	100	50	26	22	3	100	100	41	0	0	100	100	41	0	0
January 2029	100	100	100	100	100	100	44	21	18	2	100	100	38	0	0	100	100	37	0	0
	100	100	100	100	63	100	39	17	14	1	100	100	34	0	0	100	100	34	0	0
January 2031	100	100	100	100	39	100	35	14	11	1	100	100	30	0	0	100	100	30	0	0
January 2032	100	100	100	100	24	97	30	11	9	0	100	100	26	0	0	100	100	26	0	0
January 2033	100	100	100	100	15	93	27	9	7	0	100	100	23	0	0	100	100	22	0	0
January 2034	100	100	100	100	9	90	23	7	5	0	100	100	19	0	0	100	100	19	0	0
January 2035	100	100	100	100	6	86	20	6	4	0	100	100	16	0	0	100	100	16	0	0
January 2036	100	100	100	100	3	82	17	5	3	0	100	100	14	0	0	100	100	14	0	0
January 2037	100	100	100	100	2	78	15	4	3	0	100	100	12	0	0	100	100	11	0	0
January 2038	100	100	100	100	1	74	13	3	2	0	100	100	10	0	0	100	100	9	0	0
January 2039	100	77	77	77	1	69	11	2	2	0	100	94	8	0	0	100	92	8	0	0
January 2040	100	58	58	58	0	64	9	2	1	0	100	80	6	0	0	100	79	6	0	0
January 2041	100	43	43	43	0	58	7	1	1	0	100	68	5	0	0	100	66	5	0	0
January 2042	100	32	32	32	0	52	6	1	1	0	100	56	4	0	0	100	54	4	0	0
January 2043	100	23	23	23	0	46	5	1	0	0	100	45	3	0	0	100	44	3	0	0
January 2044	100	16	16	16	0	40	4	1	0	0	100	35	2	0	0	100	34	2	0	0
January 2045	100	11	11	11	0	33	3	0	0	0	100	26	1	0	0	100	26	1	0	0
January 2046	21	7	7	7	0	25	2	0	0	0	100	19	1	0	0	100	18	1	0	0
January 2047	4	4	4	4	0	17	1	0	0	0	100	11	1	0	0	100	11	0	0	0
January 2048	1	1	1	1	0	9	1	0	0	0	92	5	0	0	0	88	5	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	27.0	22.2	22.2	22.2	12.1	22.6	10.7	7.2	6.6	3.8	29.5	23.9	8.3	2.5	0.8	29.4	23.8	8.3	2.5	0.8

PSA	Prepayment	Assumption	Rates

						FSAI	терауш	CIII ASSU	шриоп	Rates					
			Class ZC	:				Class ZK					Class ZU	Ī	
Distribution Date	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%	0%	150%	270%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	103	103	103	103	103	104	104	104	104	104	104	104	104	104	104
January 2021	106	106	106	106	0	107	107	107	107	0	107	107	107	107	0
January 2022	109	109	109	109	0	111	111	111	111	0	111	111	111	111	0
January 2023	113	113	113	113	0	115	115	115	115	0	115	115	115	115	0
January 2024	116	116	116	116	0	119	119	119	119	0	119	119	119	119	0
January 2025	120	120	120	120	0	123	123	123	123	0	123	123	123	123	0
January 2026	123	123	123	88	0	128	128	100	100	0	128	128	128	66	0
January 2027	127	127	127	1	0	132	132	0	0	0	132	132	132	38	0
January 2028	131	131	131	1	0	137	137	0	0	0	137	137	137	38	0
January 2029	135	135	135	1	0	142	142	0	0	0	142	142	142	38	0
January 2030	139	139	139	1	0	147	147	0	0	0	147	147	147	38	0
January 2031	143	143	143	1	0	152	152	0	0	0	152	152	152	38	0
January 2032	148	148	148	1	0	158	158	0	0	0	158	158	158	38	0
January 2033	152	152	152	1	0	163	163	0	0	0	163	163	163	38	0
January 2034	157	157	157	1	0	169	169	0	0	0	169	169	169	38	0
January 2035	162	162	162	1	0	175	175	0	0	0	175	175	175	38	0
January 2036	166	166	166	1	0	181	181	0	0	0	181	181	181	38	0
January 2037	171	171	171	1	0	188	188	0	0	0	188	188	188	38	0
January 2038	177	177	177	1	0	194	194	0	0	0	194	194	194	38	0
January 2039	182	182	182	1	0	201	0	0	0	0	201	201	201	38	0
January 2040	188	188	188	1	0	208	0	0	0	0	208	208	208	38	0
January 2041	193	193	193	1	0	216	0	0	0	0	216	216	216	38	0
January 2042	199	199	199	1	0	223	0	0	0	0	223	223	223	38	0
January 2043	205	205	205	1	0	231	0	0	0	0	231	231	231	38	0
January 2044	212	212	212	1	0	240	0	0	0	0	240	240	240	38	0
January 2045	218	218	218	1	0	248	0	0	0	0	248	248	248	38	0
January 2046	225	225	225	1	0	257	0	0	0	0	257	257	257	38	0
January 2047	231	231	231	1	0	266	0	0	0	0	266	266	266	38	0
January 2048	238	238	238	1	0	0	0	0	0	0	276	276	276	38	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	30.0	29.9	29.6	7.1	1.2	28.9	19.6	7.0	7.0	2.0	30.0	29.9	29.8	13.7	1.2

Security Group 5 PSA Prepayment Assumption Rates

		Class	ses BC ar	nd BI				Class BL	,				Class BZ	:	
Distribution Date	0%	150%	250%	300%	500%	0%	150%	250%	300%	500%	0%	150%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	97	93	93	93	93	100	100	100	100	100	104	104	94	90	70
January 2021	94	82	82	82	82	100	100	100	100	100	108	108	78	63	5
January 2022	91	69	69	69	54	100	100	100	100	100	113	113	58	32	0
January 2023	88	56	56	56	34	100	100	100	100	100	117	117	45	13	0
January 2024	85	45	45	45	20	100	100	100	100	100	122	122	39	3	0
January 2025	81	34	34	34	10	100	100	100	100	100	127	127	37	0	0
January 2026	77	25	25	25	3	100	100	100	100	100	132	130	36	0	0
January 2027	73	18	18	18	0	100	100	100	100	90	138	128	34	0	0
January 2028	69	12	12	12	0	100	100	100	100	61	143	124	32	0	0
January 2029	65	7	7	7	0	100	100	100	100	42	149	118	29	0	0
January 2030	60	4	4	4	0	100	100	100	100	28	155	111	26	0	0
January 2031	56	1	1	1	0	100	100	100	100	19	161	103	23	0	0
January 2032	51	0	0	0	0	100	84	84	84	13	168	94	20	0	0
January 2033	45	0	0	0	0	100	66	66	66	9	175	85	18	0	0
January 2034	40	0	0	0	0	100	51	51	51	6	182	77	15	0	0
January 2035	34	0	0	0	0	100	40	40	40	4	189	69	13	0	0
January 2036	28	0	0	0	0	100	31	31	31	3	197	61	11	0	0
January 2037	21	0	0	0	0	100	24	24	24	2	205	53	9	0	0
January 2038	14	0	0	0	0	100	18	18	18	1	214	46	8	0	0
January 2039	7	0	0	0	0	100	14	14	14	1	222	39	6	0	0
January 2040	0	0	0	0	0	96	10	10	10	0	231	33	5	0	0
January 2041	0	0	0	0	0	22	8	8	8	0	241	28	4	0	0
January 2042	0	0	0	0	0	6	6	6	6	0	223	23	3	0	0
January 2043	0	0	0	0	0	4	4	4	4	0	196	18	2	0	0
January 2044	0	0	0	0	0	3	3	3	3	0	168	14	2	0	0
January 2045	0	0	0	0	0	2	2	2	2	0	138	11	1	0	0
January 2046	0	0	0	0	0	1	1	1	1	0	107	7	1	0	0
January 2047	0	0	0	0	0	1	1	1	1	0	73	4	0	0	0
January 2048	0	0	0	0	0	0	0	0	0	0	38	2	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	12.3	5.0	5.0	5.0	3.5	21.8	16.1	16.1	16.1	10.3	26.4	17.1	7.0	2.5	1.3

Security Group 6 PSA Prepayment Assumption Rates

			Class A					Class AZ					Class ZA		
Distribution Date	0%	180%	250%	300%	500%	0%	180%	250%	300%	500%	0%	180%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	98	94	94	94	94	105	105	97	91	68	105	105	105	105	105
January 2021	96	84	84	84	83	109	109	83	64	0	109	109	109	109	109
January 2022	93	71	71	71	58	114	114	65	32	0	114	114	114	114	114
January 2023	91	59	59	59	39	120	120	54	11	0	120	120	120	120	120
January 2024	88	49	49	49	27	125	125	50	2	0	125	125	125	125	125
January 2025	85	39	39	39	18	131	131	49	0	0	131	131	131	131	131
January 2026	82	32	32	32	13	137	132	49	0	0	137	137	137	137	137
January 2027	79	25	25	25	8	143	130	47	0	0	143	143	143	143	143
January 2028	76	20	20	20	6	150	125	43	0	0	150	150	150	150	150
January 2029	73	16	16	16	4	157	117	40	0	0	157	157	157	157	157
January 2030	69	13	13	13	2	164	109	36	Ŏ	Ŏ	164	164	164	164	164
January 2031	65	10	10	10	2	171	100	32	0	0	171	171	171	171	171
January 2032	61	8	8	8	1	179	91	28	Õ	Õ	179	179	179	179	179
January 2033	56	6	6	6	0	188	81	25	Ŏ	Ŏ	188	188	188	188	188
January 2034	52	5	5	5	0	196	72	21	0	0	196	196	196	196	196
January 2035	47	3	3	3	0	205	64	18	0	0	205	205	205	205	198
January 2036	42	3	3	3	Õ	215	56	15	Õ	Õ	215	215	215	215	132
January 2037	36	2	2	2	0	224	48	13	0	0	224	224	224	224	87
January 2038	31	1	1	1	0	235	41	11	Õ	Õ	235	235	235	235	57
January 2039	25	1	1	1	Õ	246	35	9	Õ	Õ	246	246	246	246	37
January 2040	18	1	1	1	0	257	29	7	Õ	Õ	257	257	257	257	24
January 2041	11	0	0	0	0	269	24	6	Õ	Õ	269	269	269	269	15
January 2042	4	ŏ	ŏ	ŏ	Ŏ	281	20	4	Ŏ	Ŏ	281	281	281	281	9
January 2043	0	Õ	Õ	Õ	0	273	15	3	0	Õ	207	207	207	207	6
January 2044	Õ	Õ	Ő	Ő	0	235	12	3	0	0	143	143	143	143	3
January 2045	Ŏ	Ŏ	Ŏ	Ŏ	Ő	193	9	2	Ŏ	Ŏ	94	94	94	94	2
January 2046	Õ	Ő	Ő	Ő	0	150	6	1	0	0	56	56	56	56	1
January 2047	ő	ő	ő	ő	Ő	103	4	1	Ő	Ő	28	28	28	28	0
January 2048	Ŏ	Ő	Ŏ	Ő	Ő	53	2	0	ŏ	Ŏ	-8	-8	-8	-8	ŏ
January 2049	ő	ő	ő	ő	0	0	0	ő	ő	0	0	0	0	0	0
Weighted Average		· ·	· ·	· ·	· ·	0	· ·	V	· ·	· ·	V	· ·	· ·	· ·	Ů
Life (years)	14.3	5.9	5.9	5.9	4.1	27.0	16.5	8.6	2.5	1.2	25.4	25.4	25.4	25.4	18.3

Security Group 7
PSA Prepayment Assumption Rates

			Class B	;			(	Class M.	A			(	lass MI	3			C	lass MV	V	
Distribution Date	0%	150%	258%	400%	600%	0%	150%	258%	400%	600%	0%	150%	258%	400%	600%	0%	150%	258%	400%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	100	100	100	98	94	91	87	82	98	95	92	89	84	100	100	100	100	100
January 2021	100	100	100	100	100	96	83	75	64	50	97	85	78	68	56	100	100	100	100	100
January 2022	100	100	100	100	100	94	71	56	39	18	95	74	61	46	27	100	100	100	100	100
January 2023	100	100	100	100	100	92	59	40	20	0	93	63	47	29	9	100	100	100	100	83
January 2024	100	100	100	100	90	90	49	27	5	0	91	54	35	16	0	100	100	100	100	0
January 2025	100	100	100	100	56	87	39	16	0	0	89	46	25	6	0	100	100	100	57	0
January 2026	100	100	100	96	35	85	31	7	0	0	86	38	17	0	0	100	100	100	0	0
January 2027	100	100	100	71	22	82	23	0	0	0	84	32	10	0	0	100	100	93	0	0
January 2028	100	100	100	53	14	79	16	0	0	0	82	25	5	0	0	100	100	42	0	0
January 2029	100	100	100	39	8	76	10	0	0	0	79	20	0	0	0	100	100	0	0	0
January 2030	100	100	82	28	5	73	4	0	0	0	76	15	0	0	0	100	100	0	0	0
January 2031	100	100	67	21	3	70	0	0	0	0	73	11	0	0	0	100	96	0	0	0
January 2032	100	100	54	15	2	66	0	0	0	0	70	7	0	0	0	100	60	0	0	0
January 2033	100	100	44	11	1	62	0	0	0	0	67	3	0	0	0	100	27	0	0	0
January 2034	100	99	35	8	1	58	0	0	0	0	63	0	0	0	0	100	0	0	0	0
January 2035	100	86	28	6	0	54	0	0	0	0	59	0	0	0	0	100	0	0	0	0
January 2036	100	74	23	4	0	50	0	0	0	0	55	0	0	0	0	100	0	0	0	0
January 2037	100	63	18	3	0	45	0	0	0	0	51	0	0	0	0	100	0	0	0	0
January 2038	100	53	14	2	0	40	0	0	0	0	47	0	0	0	0	100	0	0	0	0
January 2039	100	45	11	1	0	35	0	0	0	0	42	0	0	0	0	100	0	0	0	0
January 2040	100	37	9	1	0	30	0	0	0	0	37	0	0	0	0	100	0	0	0	0
January 2041	100	31	7	1	0	24	0	0	0	0	32	0	0	0	0	100	0	0	0	0
January 2042	100	25	5	0	0	18	0	0	0	0	27	0	0	0	0	100	0	0	0	0
January 2043	100	20	4	0	0	11	0	0	0	0	21	0	0	0	0	100	0	0	0	0
January 2044	100	15	3	0	0	4	0	0	0	0	15	0	0	0	0	100	0	0	0	0
January 2045	100	11	2	0	0	0	0	0	0	0	8	0	0	0	0	76	0	0	0	0
January 2046	100	7	1	0	0	0	0	0	0	0	2	0	0	0	0	15	0	0	0	0
January 2047	74	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
January 2048	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	28.7	20.2	14.6	10.1	6.9	15.7	5.3	3.6	2.7	2.0	16.9	6.2	4.2	3.0	2.3	26.4	13.3	8.9	6.1	4.3

						PSA F	repaym	ent Assu	mption	Rates					
			Class VA					Class VB	3				Class Z		
Distribution Date	0%	150%	258%	400%	600%	0%	150%	258%	400%	600%	0%	150%	258%	400%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	93	93	93	93	93	100	100	100	100	100	104	104	104	104	104
January 2021	85	85	85	85	85	100	100	100	100	100	108	108	108	108	108
January 2022	77	77	77	77	77	100	100	100	100	100	113	113	113	113	113
January 2023	69	69	69	69	69	100	100	100	100	100	117	117	117	117	117
January 2024	61	61	61	61	19	100	100	100	100	100	122	122	122	122	122
January 2025	52	52	52	52	0	100	100	100	100	0	127	127	127	127	126
January 2026	42	42	42	27	0	100	100	100	100	0	132	132	132	132	79
January 2027	33	33	33	-0	Õ	100	100	100	32	Õ	138	138	138	138	49
January 2028	23	23	23	0	0	100	100	100	0	0	143	143	143	118	30
January 2029	12	12	12	Õ	0	100	100	100	Õ	Õ	149	149	149	87	19
January 2030	1	1	0	ŏ	ŏ	100	100	42	ŏ	Ŏ	155	155	155	64	12
January 2031	0	0	Õ	Õ	0	92	92	0	Õ	Õ	161	161	150	47	7
January 2032	ŏ	ő	ŏ	ő	Ő	82	82	ő	ő	Ŏ	168	168	122	34	4
January 2033	ŏ	Ŏ	Ŏ	ŏ	Ŏ	72	72	Ŏ	ő	Ŏ	175	175	98	25	3
January 2034	Õ	0	0	Õ	0	62	60	0	Õ	Õ	182	182	79	18	2
January 2035	Õ	0	0	Õ	0	51	5	0	Õ	Õ	189	189	64	13	1
January 2036	Õ	Õ	Õ	Õ	Ŏ	40	Ó	Õ	Õ	Ŏ	197	166	51	9	1
January 2037	0	Õ	0	Õ	0	28	0	0	Õ	Õ	205	142	40	Ź	0
January 2038	0	0	0	Õ	0	16	0	0	Õ	Õ	214	120	32	5	Ö
January 2039	Ö	Õ	Õ	Õ	Õ	3	Õ	Õ	Õ	Ŏ	222	101	25	3	Ŏ
January 2040	0	0	0	0	0	0	0	0	0	0	225	84	19	2	0
January 2041	0	0	0	0	0	0	0	0	0	0	225	69	15	2	0
January 2042	Ŏ	Õ	Õ	Ŏ	Ŏ	Ŏ	Õ	Ŏ	Ŏ	Ŏ	225	56	11	1	Õ
January 2043	0	0	0	0	0	0	0	0	0	0	225	44	8	1	0
January 2044	0	0	0	0	0	0	0	0	0	0	225	33	6	0	0
January 2045	Ŏ	Õ	Õ	Ŏ	Ŏ	Õ	Ö	Ŏ	Ŏ	Ŏ	225	24	4	Ŏ	Õ
January 2046	0	0	0	0	0	0	0	0	0	0	225	16	2	0	0
January 2047	Õ	0	0	Õ	0	Õ	0	0	0	Õ	166	9	1	0	Õ
January 2048	ŏ	Ŏ	Ŏ	ŏ	Ŏ	ŏ	Ŏ	ŏ	ŏ	ŏ	85	3	0	ŏ	Ŏ
January 2049	Õ	0	0	0	0	Õ	0	0	0	Õ	Ó	0	0	0	Õ
Weighted Average	-	,	,	-	-	Ü	,	-	-	-	0	,	-	-	~
Life (years)	6.0	6.0	5.9	5.1	4.0	16.0	14.6	10.9	7.8	5.5	28.7	21.1	16.1	11.6	8.1

Security Group 8 PSA Prepayment Assumption Rates

		(	Class KI	)			Classe	es KE a	nd KI			(	lass KI	7		(	Classes	KG, KH	and KJ	i
Distribution Date	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	100	100	100	98	95	94	91	89	99	96	95	94	92	100	100	95	91	91
January 2021	100	100	100	100	100	97	85	82	75	68	97	89	86	81	76	100	100	83	70	70
January 2022	100	100	100	100	100	95	73	67	55	44	96	80	75	66	57	100	100	68	44	6
January 2023	100	100	100	100	100	93	62	54	38	25	95	71	65	53	43	100	100	57	25	0
January 2024	100	100	100	100	100	91	52	42	25	11	93	63	56	42	32	100	100	49	12	0
January 2025	100	100	100	100	100	89	43	32	14	1	91	56	48	34	24	100	100	44	4	0
January 2026	100	100	100	100	76	87	35	23	5	0	90	50	41	27	18	100	100	41	0	0
January 2027	100	100	100	94	56	84	28	16	0	0	88	45	35	22	13	100	99	38	0	0
January 2028	100	100	100	75	41	82	21	9	0	0	86	40	30	17	10	100	95	34	0	0
January 2029	100	100	100	60	31	79	15	4	0	0	84	35	26	14	7	100	88	28	0	0
January 2030	100	100	96	48	23	76	10	0	0	0	81	31	22	11	5	100	79	22	0	0
January 2031	100	100	81	38	17	73	5	0	0	0	79	27	19	9	4	100	70	15	0	0
January 2032	100	100	69	30	12	70	1	0	0	0	77	24	16	7	3	100	60	8	0	0
January 2033	100	90	58	24	9	66	0	0	0	0	74	21	14	5	2	100	50	1	0	0
January 2034	100	78	49	18	6	62	0	0	0	0	71	18	11	4	1	100	40	0	0	0
January 2035	100	68	41	14	5	58	0	0	0	0	68	16	10	3	1	100	30	0	0	0
January 2036	100	59	34	11	3	54	0	0	0	0	65	14	8	3	1	100	21	0	0	0
January 2037	100	50	28	9	2	50	0	0	0	0	61	12	7	2	1	100	12	0	0	0
January 2038	100	43	23	7	2	45	0	0	0	0	58	10	5	2	0	100	4	0	0	0
January 2039	100	36	19	5	1	40	0	0	0	0	54	8	4	1	0	100	0	0	0	0
January 2040	100	30	15	4	1	35	0	0	0	0	50	7	4	1	0	100	0	0	0	0
January 2041	100	25	12	3	1	29	0	0	0	0	46	6	3	1	0	100	0	0	0	0
January 2042	100	20	10	2	0	23	0	0	0	0	41	5	2	0	0	100	0	0	0	0
January 2043	100	16	7	1	0	17	0	0	0	0	36	4	2	0	0	100	0	0	0	0
January 2044	100	12	6	1	0	10	0	0	0	0	31	3	1	0	0	100	0	0	0	0
January 2045	100	9	4	1	0	3	0	0	0	0	26	2	1	0	0	100	0	0	0	0
January 2046	86	6	3	0	0	0	0	0	0	0	20	1	1	0	0	78	0	0	0	0
January 2047	59	4	1	0	0	0	0	0	0	0	14	1	0	0	0	37	0	0	0	0
January 2048	30	1	1	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	28.3	19.0	16.1	12.0	9.4	16.6	5.8	4.7	3.5	2.9	19.3	8.8	7.4	5.5	4.4	27.7	14.0	6.3	3.0	2.2

PSA Prepayment Assumption Rates

	C	lasses	KL, KM	and K	N		(	lass K	Γ'			C	lass KV	7			(	lass MZ	Z.	
Distribution Date	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	100	100	100	89	70	99	96	95	93	92	93	93	93	93	93	104	104	104	104	104
January 2021	100	100	100	62	1	97	89	86	81	75	85	85	85	85	85	107	107	107	107	107
January 2022	100	100	100	33	0	96	79	74	65	57	77	77	77	77	77	111	111	111	111	111
January 2023	100	100	100	14	0	95	71	64	52	42	69	69	69	69	69	115	115	115	115	0
January 2024	100	100	100	4	0	93	63	55	42	31	60	60	60	60	60	119	119	119	119	0
January 2025	100	100	100	0	0	91	56	48	34	23	51	51	51	51	51	123	123	123	123	0
January 2026	100	100	100	0	0	90	50	41	27	17	42	42	42	42	0	128	128	128	128	0
January 2027	100	100	100	0	0	88	44	35	22	13	33	33	33	15	0	132	132	132	0	0
January 2028	100	100	100	0	0	86	39	30	17	10	23	23	23	0	0	137	137	137	0	0
January 2029	100	100	100	0	0	84	35	26	14	7	13	13	13	0	0	142	142	142	0	0
January 2030	100	100	100	0	0	81	31	22	11	5	2	2	0	0	0	147	147	147	0	0
January 2031	100	100	100	0	0	79	27	19	9	4	0	0	0	0	0	152	152	152	0	0
January 2032	100	100	100	0	0	77	24	16	7	3	0	0	0	0	0	158	158	158	0	0
January 2033	100	100	100	0	0	74	21	13	5	2	0	0	0	0	0	163	163	163	0	0
January 2034	100	100	91	0	0	71	18	11	4	1	0	0	0	0	0	169	169	0	0	0
January 2035	100	100	79	0	0	68	16	9	3	1	0	0	0	0	0	175	175	0	0	0
January 2036	100	100	69	0	0	65	13	8	3	1	0	0	0	0	0	181	181	0	0	0
January 2037	100	100	59	0	0	61	12	7	2	1	0	0	0	0	0	188	188	0	0	0
January 2038	100	100	50	0	0	58	10	5	2	0	0	0	0	0	0	194	194	0	0	0
January 2039	100	92	42	0	0	54	8	4	1	0	0	0	0	0	0	201	0	0	0	0
January 2040	100	78	35	0	0	50	7	4	1	0	0	0	0	0	0	208	0	0	0	0
January 2041	100	66	28	0	0	46	6	3	1	0	0	0	0	0	0	216	0	0	0	0
January 2042	100	54	23	0	0	41	5	2	0	0	0	0	0	0	0	223	0	0	0	0
January 2043	100	44	18	0	0	36	4	2	0	0	0	0	0	0	0	231	0	0	0	0
January 2044	100	34	14	0	0	31	3	1	0	0	0	0	0	0	0	240	0	0	0	0
January 2045	100	26	10	0	0	26	2	1	0	0	0	0	0	0	0	248	0	0	0	0
January 2046	100	18	7	0	0	20	1	1	0	0	0	0	0	0	0	257	0	0	0	0
January 2047	100	11	4	0	0	14	1	0	0	0	0	0	0	0	0	266	0	0	0	0
January 2048	88	5	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	29.4	23.8	19.8	2.5	1.3	19.3	8.8	7.4	5.5	4.4	6.0	6.0	6.0	5.4	4.8	28.9	19.5	14.2	7.2	3.1

Security Group 8 PSA Prepayment Assumption Rates

		(	Class PA	1			(	Class Pl	3			(	Class PI	)			(	Class PI	3	
Distribution Date	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	98	94	94	94	94	100	100	100	100	100	98	94	94	94	94	100	100	100	100	100
January 2021	96	85	85	85	85	100	100	100	100	100	96	84	84	84	84	100	100	100	100	100
January 2022	93	73	73	73	63	100	100	100	100	100	94	70	70	70	70	100	100	100	100	100
January 2023	91	62	62	58	45	100	100	100	100	100	92	57	57	57	49	100	100	100	100	100
January 2024	88	52	52	45	32	100	100	100	100	100	90	45	45	45	32	100	100	100	100	100
January 2025	85	43	43	35	22	100	100	100	100	100	87	35	35	35	20	100	100	100	100	100
January 2026	82	34	34	27	15	100	100	100	100	100	84	25	25	25	11	100	100	100	100	100
January 2027	79	28	28	20	9	100	100	100	100	100	82	17	17	17	4	100	100	100	100	100
January 2028	76	22	22	15	5	100	100	100	100	100	79	10	10	10	0	100	100	100	100	91
January 2029	73	17	17	11	2	100	100	100	100	100	75	5	5	5	0	100	100	100	100	67
January 2030	69	13	13	7	0	100	100	100	100	100	72	1	1	1	0	100	100	100	100	50
January 2031	65	9	9	4	0	100	100	100	100	74	68	0	0	0	0	100	83	83	83	37
January 2032	61	7	7	2	0	100	100	100	100	54	65	0	0	0	0	100	65	65	65	27
January 2033	57	4	4	0	0	100	100	100	100	40	61	0	0	0	0	100	52	52	52	20
January 2034	52	2	2	0	0	100	100	100	83	29	56	0	0	0	0	100	41	41	41	14
January 2035	47	1	1	0	0	100	100	100	65	21	52	0	0	0	0	100	32	32	32	10
January 2036	42	0	0	0	0	100	89	89	50	15	47	0	0	0	0	100	25	25	25	7
January 2037	37	0	0	0	0	100	71	71	39	11	42	0	0	0	0	100	19	19	19	5
January 2038	31	0	0	0	0	100	57	57	30	8	36	0	0	0	0	100	15	15	15	4
January 2039	25	0	0	0	0	100	45	45	23	5	31	0	0	0	0	100	11	11	11	3
January 2040	19	0	0	0	0	100	35	35	17	4	25	0	0	0	0	100	8	8	8	2
January 2041	12	0	0	0	0	100	27	27	13	3	18	0	0	0	0	100	6	6	6	1
January 2042	5	0	0	0	0	100	20	20	9	2	11	0	0	0	0	100	5	5	5	1
January 2043	0	0	0	0	0	63	15	15	7	1	4	0	0	0	0	100	3	3	3	1
January 2044	0	0	0	0	0	11	11	11	5	1	0	0	0	0	0	75	2	2	2	0
January 2045	0	0	0	0	0	7	7	7	3	0	0	0	0	0	0	24	2	2	2	0
January 2046	0	0	0	0	0	5	5	5	2	0	0	0	0	0	0	1	1	1	1	0
January 2047	0	0	0	0	0	3	3	3	1	0	0	0	0	0	0	1	1	1	1	0
January 2048	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	14.4	6.0	6.0	5.3	4.2	24.4	20.4	20.4	18.0	14.2	15.2	4.9	4.9	4.9	4.1	25.5	15.2	15.2	15.2	11.9

		(	Class PZ	Z.			(	Class SC	<del>j</del>			C	class SE	[			- (	Class SJ		
Distribution Date	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	104	104	104	104	104	99	96	95	94	92	99	96	95	93	92	99	96	95	93	92
January 2021	107	107	107	107	107	97	89	86	81	76	97	89	86	81	75	97	89	86	81	75
January 2022	111	111	111	111	111	96	80	75	66	58	96	79	74	65	57	96	79	74	65	57
January 2023	115	115	115	115	115	95	71	65	53	43	95	71	64	52	42	95	71	64	52	42
January 2024	119	119	119	119	119	93	64	56	43	32	93	63	55	42	31	93	63	55	42	31
January 2025	123	123	123	123	123	91	57	48	34	24	91	56	48	34	23	91	56	48	34	23
January 2026	128	128	128	128	112	90	50	41	27	18	90	50	41	27	17	90	50	41	27	17
January 2027	132	132	132	132	83	88	45	36	22	13	88	44	35	22	13	88	44	35	22	13
January 2028	137	137	137	111	61	86	40	30	18	10	86	39	30	17	10	86	39	30	17	10
January 2029	142	142	142	89	45	84	35	26	14	7	84	35	26	14	7	84	35	26	14	7
January 2030	147	147	142	71	33	81	31	22	11	5	81	31	22	11	5	81	31	22	11	5
January 2031	148	148	121	56	25	79	27	19	9	4	79	27	19	9	4	79	27	19	9	4
January 2032	148	148	102	44	18	77	24	16	7	3	77	24	16	7	3	77	24	16	7	3
January 2033	148	133	86	35	13	74	21	14	5	2	74	21	13	5	2	74	21	13	5	2
January 2034	148	116	73	27	10	71	18	11	4	2	71	18	11	4	1	71	18	11	4	1
January 2035	148	101	61	21	7	68	16	10	3	1	68	16	9	3	1	68	16	9	3	1
January 2036	148	87	51	17	5	65	14	8	3	1	65	13	8	3	1	65	13	8	3	1
January 2037	148	74	42	13	4	61	12	7	2	1	61	12	7	2	1	61	12	7	2	1
January 2038	148	63	35	10	3	58	10	5	2	0	58	10	5	2	0	58	10	5	2	0
January 2039	148	53	28	7	2	54	8	4	1	0	54	8	4	1	0	54	8	4	1	0
January 2040	148	45	23	6	1	50	7	4	1	0	50	7	4	1	0	50	7	4	1	0
January 2041	148	37	18	4	1	46	6	3	1	0	46	6	3	1	0	46	6	3	1	0
January 2042	148	30	14	3	1	41	5	2	0	0	41	5	2	0	0	41	5	2	0	0
January 2043	148	24	11	2	0	36	4	2	0	0	36	4	2	0	0	36	4	2	0	0
January 2044	148	18	8	2	0	31	3	1	0	0	31	3	1	0	0	31	3	1	0	0
January 2045	148	13	6	1	0	26	2	1	0	0	26	2	1	0	0	26	2	1	0	0
January 2046	127	9	4	1	0	20	1	1	0	0	20	1	1	0	0	20	1	1	0	0
January 2047	87	5	2	0	0	14	1	0	0	0	14	1	0	0	0	14	1	0	0	0
January 2048	45	2	1	0	0	7	0	0	0	0	7	0	0	0	0	7	0	0	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	28.3	19.0	16.2	12.4	9.9	19.3	8.9	7.4	5.5	4.4	19.3	8.8	7.4	5.5	4.4	19.3	8.8	7.4	5.5	4.4

Security Group 8 PSA Prepayment Assumption Rates

		(	Class SI	_			(	Class SN	Ī			(	lass ZN	ſ			(	Class ZP	)	
Distribution Date	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%	0%	150%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January 2020	99	96	95	94	92	99	96	95	93	92	104	104	104	104	104	104	104	97	84	71
January 2021	97	89	86	81	76	97	89	86	81	75	107	107	107	107	107	108	108	87	45	4
January 2022	96	80	75	66	57	96	79	74	65	57	111	111	111	111	0	113	113	74	0	0
January 2023	95	71	65	53	43	95	71	64	52	42	115	115	115	115	0	117	117	65	0	0
January 2024	93	63	56	43	32	93	63	55	42	31	119	119	119	119	0	122	122	61	0	0
January 2025	91	57	48	34	24	91	56	48	34	23	123	123	123	123	0	127	127	59	0	0
January 2026	90	50	41	27	18	90	50	41	27	17	128	128	128	90	0	132	131	60	0	0
January 2027	88	45	35	22	13	88	44	35	22	13	132	132	132	75	0	138	132	59	0	0
January 2028	86	40	30	17	10	86	39	30	17	10	137	137	137	75	0	143	130	57	0	0
January 2029	84	35	26	14	7	84	35	26	14	7	142	142	142	75	0	149	126	54	0	0
January 2030	81	31	22	11	5	81	31	22	11	5	147	147	147	75	0	155	119	51	0	0
January 2031	79	27	19	9	4	79	27	19	9	4	152	152	152	75	0	161	112	47	0	0
January 2032	77	24	16	7	3	77	24	16	7	3	158	158	158	75	0	168	104	43	0	0
January 2033	74	21	14	5	2	74	21	13	5	2	163	163	163	75	0	175	96	38	0	0
January 2034	71	18	11	4	2	71	18	11	4	1	169	169	169	75	0	182	88	34	0	0
January 2035	68	16	10	3	1	68	16	9	3	1	175	175	175	75	0	189	79	30	0	0
January 2036	65	14	8	3	1	65	13	8	3	1	181	181	181	75	0	197	71	27	0	0
January 2037	61	12	7	2	1	61	12	7	2	1	188	188	188	75	0	205	63	23	0	0
January 2038	58	10	5	2	0	58	10	5	2	0	194	194	194	75	0	214	55	20	0	0
January 2039	54	8	4	1	0	54	8	4	1	0	201	201	201	75	0	222	48	17	0	0
January 2040	50	7	4	1	0	50	7	4	1	0	208	208	208	75	0	231	41	14	0	0
January 2041	46	6	3	1	0	46	6	3	1	0	216	216	216	75	0	241	34	12	0	0
January 2042	41	5	2	0	0	41	5	2	0	0	223	223	223	75	0	251	29	9	0	0
January 2043	36	4	2	0	0	36	4	2	0	0	231	231	231	75	0	261	23	7	0	0
January 2044	31	3	1	0	0	31	3	1	0	0	240	240	240	75	0	241	18	6	0	0
January 2045	26	2	1	0	0	26	2	1	0	0	248	248	248	75	0	199	14	4	0	0
January 2046	20	1	1	0	0	20	1	1	0	0	257	257	257	75	0	154	9	3	0	0
January 2047	14	1	0	0	0	14	1	0	0	0	266	266	266	75	0	106	6	2	0	0
January 2048	7	0	0	0	0	7	0	0	0	0	276	276	276	75	0	55	2	1	0	0
January 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	19.3	8.9	7.4	5.5	4.4	19.3	8.8	7.4	5.5	4.4	30.0	29.9	29.9	20.6	2.1	27.4	18.1	11.1	1.8	1.3

## **Yield Considerations**

An investor seeking to maximize yield should make a decision whether to invest in any Regular or MX Class based on the anticipated yield of that Class resulting from its purchase price, the investor's own projection of Mortgage Loan prepayment rates under a variety of scenarios, in the case of the Group 3 Securities, the investor's own projection of payment rates on the Underlying Certificates under a variety of scenarios and, in the case of a Floating Rate or an Inverse Floating Rate Class, the investor's own projection of levels of LIBOR under a variety of scenarios. No representation is made regarding Mortgage Loan prepayment rates, Underlying Certificate payment rates, LIBOR levels or the yield of any Class.

Prepayments: Effect on Yields

The yields to investors will be sensitive in varying degrees to the rate of prepayments on the related Mortgage Loans.

- In the case of Regular Securities or MX Securities purchased at a premium (especially the Interest Only Classes), faster than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- Investors in the Interest Only Classes should also consider the risk that rapid rates of principal payments could result in the failure of investors to recover fully their investments.
- In the case of Regular Securities or MX Securities purchased at a discount, slower than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.

See "Risk Factors — Rates of principal payments can reduce your yield" in this Supplement.

Rapid rates of prepayments on the Mortgage Loans are likely to coincide with periods of low prevailing interest rates.

During periods of low prevailing interest rates, the yields at which an investor may be able to reinvest amounts received as principal payments on the investor's Class of Securities may be lower than the yield on that Class.

Slow rates of prepayments on the Mortgage Loans are likely to coincide with periods of high prevailing interest rates.

During periods of high prevailing interest rates, the amount of principal payments available to an investor for reinvestment at those high rates may be relatively low.

The Mortgage Loans will not prepay at any constant rate until maturity, nor will all of the Mortgage Loans underlying any Trust Asset Group prepay at the same rate at any one time. The timing of changes in the rate of prepayments may affect the actual yield to an investor, even if the average rate of principal prepayments is consistent with the investor's expectation. In general, the earlier a prepayment of principal on the Mortgage Loans, the greater the effect on an investor's yield. As a result, the effect on an investor's yield of principal prepayments occurring at a rate higher (or lower) than the rate anticipated by the investor during the period immediately following the Closing Date is not likely to be offset by a later equivalent reduction (or increase) in the rate of principal prepayments.

## LIBOR: Effect on Yields of the Floating Rate and Inverse Floating Rate Classes

Low levels of LIBOR can reduce the yield of the Floating Rate Classes. High levels of LIBOR can significantly reduce the yield of the Inverse Floating Rate Classes. In addition, the Floating Rate Classes will not benefit from a higher yield at high levels of LIBOR because the rate on such Classes is capped at a maximum rate described under "Terms Sheet — Interest Rates."

## Payment Delay: Effect on Yields of the Fixed Rate and Delay Classes

The effective yield on any Fixed Rate or Delay Class will be less than the yield otherwise produced by its Interest Rate and purchase price because, on each Distribution Date, 30 days' interest will be payable on (or added to the principal amount of) that Class even though interest began to accrue approximately 50 days earlier.

## **Yield Tables**

The following tables show the pre-tax yields to maturity on a corporate bond equivalent basis of specified Classes at various constant percentages of PSA and, in the case of the Inverse Floating Rate Classes, at various constant levels of LIBOR.

The Mortgage Loans will not prepay at any constant rate until maturity, and it is unlikely that LIBOR will remain constant. Moreover, it is likely that the Mortgage Loans will experience actual prepayment rates that differ from those of the Modeling Assumptions. Therefore, the actual pre-tax yield of any Class may differ from those shown in the applicable table below for that Class even if the Class is purchased at the assumed price shown.

The yields were calculated by

- 1. determining the monthly discount rates that, when applied to the applicable assumed streams of cash flows to be paid on the applicable Class, would cause the discounted present value of the assumed streams of cash flows to equal the assumed purchase price of that Class plus accrued interest, and
- 2. converting the monthly rates to corporate bond equivalent rates.

These calculations do not take into account variations that may occur in the interest rates at which investors may be able to reinvest funds received by them as distributions on their Securities and consequently do not purport to reflect the return on any investment in any Class when those reinvestment rates are considered.

The information set forth in the following tables was prepared on the basis of the Modeling Assumptions and the assumptions that (1) the Interest Rate applicable to each Inverse Floating Rate Class for each Accrual Period following the first Accrual Period will be based on the indicated level of LIBOR and (2) the purchase price of each Class (expressed as a percentage of its original Class Principal Balance or Class Notional Balance) plus accrued interest is as indicated in the related table. **The assumed purchase price is not necessarily that at which actual sales will occur.** 

# **SECURITY GROUP 1**

## Sensitivity of Class IC to Prepayments Assumed Price 22.0%\*

# PSA Prepayment Assumption Rates 150% 210% 250% 363% 500%

0.0%

(8.5)%

6.2%

6.2%

6.2%

# Sensitivity of Class IE to Prepayments Assumed Price 20.5%\*

PSA Prepayment Assumption Rates					
150%	210%	250%	360%	500%	
6.7%	6.7%	6.7%	0.0%	(9.6)%	

## Sensitivity of Class IL to Prepayments Assumed Price 15.0%\*

PSA Prepayment Assumption Rates					
150%	210%	250%	329%	500%	
16.9%	11.5%	7.7%	0.0%	(16.3)%	

# Sensitivity of Class IP to Prepayments Assumed Price 21.5%\*

PSA Prepayment Assumption Rates					
150%	210%	250%	390%	500%	
7.6%	7.6%	7.4%	0.0%	(6.6)%	

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

## Sensitivity of Class LS to Prepayments Assumed Price 15.2%\*

	PSA Prepayment Assumption Rates						
LIBOR	150%	210%	250%	500%			
1.000000%	25.7%	22.6%	20.6%	7.3%			
2.336750%	15.6%	12.4%	10.2%	(3.7)%			
4.193375%	1.2%	(2.2)%	(4.5)%	(19.3)%			
6.050000% and above	**	**	**	**			

## Sensitivity of Class SA to Prepayments Assumed Price 15.6%\*

	PSA Prepayment Assumption Rates						
LIBOR	150%	210%	250%	500%			
1.000000%	24.7%	21.6%	19.5%	6.2%			
2.336750%	14.8%	11.6%	9.5%	(4.5)%			
4.193375%	0.8%	(2.6)%	(4.9)%	(19.7)%			
6.050000% and above	**	**	**	**			

## Sensitivity of Class SM to Prepayments Assumed Price 14.8%\*

	PSA Prepayment Assumption Rates						
LIBOR	150%	210%	250%	500%			
1.000000%	27.0%	24.0%	22.0%	9.2%			
2.336750%	16.5%	13.4%	11.3%	(2.2)%			
4.193375%	1.7%	(1.6)%	(3.8)%	(18.4)%			
6.050000% and above	**	**	***	**			

## **SECURITY GROUP 2**

## Sensitivity of Class AS to Prepayments Assumed Price 2.6%\*

	PSA Prepayment Assumption Rates					
LIBOR	200%	350%	500%	700%		
1.00000%	116.4%	109.2%	101.8%	91.6%		
2.51550%	41.0%	33.1%	25.0%	13.9%		
3.14275%	12.5%	4.0%	(4.9)%	(17.2)%		
3.77000% and above	**	**	**	**		

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

## **SECURITY GROUP 3**

## Sensitivity of Class IO to Prepayments Assumed Price 16.0%\*

## **PSA Prepayment Assumption Rates**

100%	200%	300%	320%	400%
18.7%	10.2%	1.8%	0.0%	(7.1)%

## **SECURITY GROUP 4**

# Sensitivity of Class NS to Prepayments Assumed Price 94.0%\*

	PSA Prepayment Assumption Rates						
LIBOR	150%	270%	300%	600%			
1.00000%	7.4%	8.5%	9.2%	11.7%			
2.51550%	4.7%	5.8%	6.5%	9.1%			
3.75775%	2.5%	3.5%	4.4%	6.9%			
5.00000% and above	0.4%	1.3%	2.2%	4.8%			

# Sensitivity of Class SB to Prepayments Assumed Price 3.0%\*

	PSA Prepayment Assumption Rates						
LIBOR	150%	270%	300%	600%			
1.00000%	183.8%	158.2%	152.0%	96.2%			
2.51550%	101.4%	75.1%	69.0%	16.7%			
4.28275%	9.5%	(18.2)%	(24.2)%	(70.8)%			
6.05000% and above	**	**	**	**			

# Sensitivity of Class SC to Prepayments Assumed Price 3.0%\*

	PSA Prepayment Assumption Rates						
LIBOR	150%	270%	300%	600%			
1.00000%	231.1%	230.2%	229.8%	224.9%			
2.51550%	150.0%	148.3%	147.8%	140.7%			
4.28275%	66.8%	63.1%	62.1%	50.9%			
6.05000% and above	**	**	**	**			

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

## Sensitivity of Class SD to Prepayments Assumed Price 3.0%\*

	PS	A Prepayment	Assumption Ra	ates
LIBOR	150%	270%	300%	600%
1.00000%	185.0%	159.4%	153.3%	97.4%
2.51550%	102.5%	76.2%	70.1%	17.7%
4.28275%	10.6%	(17.3)%	(23.3)%	(70.1)%
6.05000% and above	**	**	**	**

## Sensitivity of Class SE to Prepayments Assumed Price 19.0%\*

	PSA	A Prepayment	t Assumption	Rates
LIBOR	150%	270%	300%	600%
1.00000%	22.6%	17.1%	15.6%	0.4%
2.51550%	12.6%	6.5%	5.0%	(11.5)%
4.28275%	0.1%	(6.5)%	(8.3)%	(26.2)%
6.05000% and above	**	**	**	**

## Sensitivity of Class SK to Prepayments Assumed Price 19.0%\*

	PSA	A Prepayment	t Assumption	Rates
LIBOR	150%	270%	300%	600%
1.00000%	22.6%	17.0%	15.6%	0.4%
2.51550%	12.6%	6.5%	4.9%	(11.5)%
4.28275%	0.1%	(6.6)%	(8.3)%	(26.3)%
6.05000% and above	**	**	**	**

## **SECURITY GROUP 5**

## Sensitivity of Class BI to Prepayments Assumed Price 12.8%\*

# PSA Prepayment Assumption Rates 250% 300% 500%

150%	250%	300%	500%	546%
14.7%	14.7%	14.7%	3.1%	0.1%

## **SECURITY GROUP 8**

## Sensitivity of Class KI to Prepayments Assumed Price 16.0%\*

# **PSA Prepayment Assumption Rates**

150%	200%	292%	300%	400%
14.2%	9.3%	0.1%	(0.8)%	(10.9)%

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

## Sensitivity of Class SG to Prepayments Assumed Price 16.0%\*

	PSA	Prepayment	Assumption	Rates
LIBOR	150%	200%	300%	400%
1.00000%	23.9%	21.4%	16.2%	11.0%
2.51419%	13.0%	10.3%	4.9%	(0.6)%
4.28210%	(0.2)%	(3.0)%	(8.7)%	(14.6)%
6.05000% and above	**	**	**	**

## Sensitivity of Class SH to Prepayments Assumed Price 16.0%\*

	PSA	Prepayment	Assumption	Rates
LIBOR	150%	200%	300%	400%
1.00000%	23.7%	21.2%	15.9%	10.6%
2.51419%	12.8%	10.2%	4.7%	(0.9)%
4.28210%	(0.3)%	(3.1)%	(8.9)%	(14.8)%
6.05000% and above	**	**	**	**

## Sensitivity of Class SJ to Prepayments Assumed Price 16.0%\*

	PSA	Prepayment	Assumption	Rates
LIBOR	150%	200%	300%	400%
1.00000%	23.7%	21.2%	15.9%	10.6%
2.51419%	12.8%	10.2%	4.7%	(0.9)%
4.28210%	(0.3)%	(3.1)%	(8.9)%	(14.8)%
6.05000% and above	**	**	**	**

# Sensitivity of Class SL to Prepayments Assumed Price 16.0%\*

	PSA	Prepayment	Assumption	Rates
LIBOR	150%	200%	300%	400%
1.00000%	23.9%	21.3%	16.1%	10.9%
2.51419%	12.9%	10.3%	4.8%	(0.7)%
4.28210%	(0.2)%	(3.0)%	(8.7)%	(14.6)%
6.05000% and above	**	**	**	**

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

# Sensitivity of Class SN to Prepayments Assumed Price 16.0%\*

	PSA	Prepayment	Assumption	Rates
LIBOR	150%	200%	300%	400%
1.00000%	23.7%	21.2%	15.9%	10.6%
2.51419%	12.8%	10.2%	4.7%	(0.9)%
4.28210%	(0.3)%	(3.1)%	(8.9)%	(14.8)%
6.05000% and above	**	***	और और	**

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

## CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

The following tax discussion, when read in conjunction with the discussion of "Certain United States Federal Income Tax Consequences" in the Base Offering Circular, describes the material United States federal income tax considerations for investors in the Securities. However, these two tax discussions do not purport to deal with all United States federal tax consequences applicable to all categories of investors, some of which may be subject to special rules.

### **REMIC Elections**

In the opinion of Cleary Gottlieb Steen & Hamilton LLP, the Trust will constitute a Single REMIC Series as to the Group 2 Trust Assets, a Single REMIC Series as to the Group 3 Trust Assets and a Double REMIC Series as to the Group 1, 4, 5, 6, 7 and 8 Trust Assets, each for United States federal income tax purposes. Separate REMIC elections will be made for the Group 2 REMIC, the Group 3 REMIC, the Group 1, 4, 5, 6, 7 and 8 Pooling REMIC and the Group 1, 4, 5, 6, 7 and 8 Issuing REMIC.

## **Regular Securities**

The Regular Securities will be treated as debt instruments issued by the Group 1, 4, 5, 6, 7 and 8 Issuing REMIC, the Group 2 REMIC or the Group 3 REMIC, as applicable, for United States federal income tax purposes. Income on the Regular Securities must be reported under an accrual method of accounting.

The Notional and Accrual Classes of Regular Securities will be issued with original issue discount ("OID"), and certain other Classes of Regular Securities may be issued with OID. See "Certain United States Federal Income Tax Consequences — Tax Treatment of Regular Securities — Original Issue Discount," "— Variable Rate Securities" and "— Interest Weighted Securities and Non-VRDI Securities" in the Base Offering Circular.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

The prepayment assumption that should be used in determining the rates of accrual of OID, if any, on the Regular Securities (as described in "Yield, Maturity and Prepayment Considerations" in this Supplement) is as follows:

Group(s)	<u>PSA</u>
1	210%
2	350%
3 and 8	200%
4	270%
5 and 6	250%
7	258%

In the case of the Floating Rate Classes, the interest rate values to be used for these determinations are the initial Interest Rates as set forth in the Terms Sheet under "Interest Rates." No representation is made, however, about the rate at which prepayments on the Mortgage Loans underlying any Group of Trust Assets actually will occur or the level of LIBOR at any time after the date of this Supplement. See "Certain United States Federal Income Tax Consequences" in the Base Offering Circular.

The Regular Securities generally will be treated as "regular interests" in a REMIC for domestic building and loan associations and "real estate assets" for real estate investment trusts ("REITs") as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. Similarly, interest on the Regular Securities will be considered "interest on obligations secured by mortgages on real property" for REITs as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular.

A Holder of Regular Securities that uses an accrual method of accounting for tax purposes generally will be required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements. The application of this rule thus may require the accrual of income earlier than would be the case under the general tax rules described under "Certain United States Federal Income Tax Consequences — Tax Treatment of Regular Securities" in the Base Offering Circular, although the precise application of this rule is unclear at this time. This rule generally will be effective for tax years beginning after December 31, 2017 or, for Regular Securities issued with original issue discount, for tax years beginning after December 31, 2018. The Service issued Notice 2018-80 stating its intention to issue regulations that would exclude market discount from this rule effective January 1, 2018. Prospective investors in Regular Securities that use an accrual method of accounting for tax purposes are urged to consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

It is expected the Tax Administrator will treat the Group 2 REMIC as a "single-class REMIC" as defined under Temporary Regulations, and will report income and expenses with respect to the Group 2 REMIC accordingly. As such, certain of the Group 2 REMIC's fees and expenses would be allocated proportionately among the Regular Securities and Residual Securities issued by the Group 2 REMIC. An individual, trust or estate that holds such Regular Securities (directly or indirectly through a grantor trust, a partnership, an S corporation, a common trust fund, or a nonpublicly offered RIC) generally will not be eligible to deduct its allocable share of the Group 2 REMIC's fees or expenses under Section 212 of the Code for any taxable year beginning after December 31, 2017, and before January 1, 2026. For a discussion of single-class REMICs, see "Certain United States Federal Income Tax Consequences — Tax Treatment of Regular Securities — Single Class REMICs" in the Base Offering Circular, as modified by the previous sentence. Prospective investors in Regular Securities are urged to consult with their tax advisors regarding the potential applicability of these rules to their particular situation.

### **Residual Securities**

The Class R2 Securities will represent the beneficial ownership of the Residual Interest in the Group 2 REMIC. The Class R3 Securities will represent the beneficial ownership of the Residual Interest in the Group 3 REMIC. The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Group 1, 4, 5, 6, 7 and 8 Pooling REMIC and the beneficial ownership of the Residual Interest in the Group 1, 4, 5, 6, 7 and 8 Issuing REMIC. The Residual Securities, i.e., the Class RR, R2 and R3 Securities, generally will be treated as "residual interests" in a REMIC for domestic building and loan associations and as "real estate assets" for REITs, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular, but will not be treated as debt for United States federal income tax purposes. Instead, the Holders of the Residual Securities will be required to report, and will be taxed on, their pro rata shares of the taxable income or loss of the related Trust REMICs, and these requirements will continue until there are no outstanding regular interests in the respective Trust REMICs. Thus, Residual Holders will have taxable income attributable to the Residual Securities even though they will not receive principal or interest distributions with respect to the Residual Securities, which could result in a negative after-tax return for the Residual Holders. Even though the Holders of the Residual Securities are not entitled to any stated principal or interest payments on the Residual Securities, the related Trust REMICs may have substantial taxable income in certain periods, and offsetting tax losses may not occur until much later periods. Accordingly, the Holders of the Residual Securities may experience substantial adverse tax timing consequences. Prospective investors are urged to consult their own tax advisors and consider the after-tax effect of ownership of the Residual Securities and the suitability of the Residual Securities to their investment objectives.

Prospective Holders of Residual Securities should be aware that, at issuance, based on the expected prices of the Regular and Residual Securities and the prepayment assumption described above, the residual interests represented by the Residual Securities will be treated as "noneconomic residual interests" as that term is defined in Treasury regulations.

OID accruals on the Underlying Certificates will be computed using the same prepayment assumption as set forth under "Certain United States Federal Income Tax Consequences — Regular Securities" in this Supplement.

An individual, trust or estate that holds Residual Securities (directly or indirectly through a grantor trust, a partnership, an S corporation, a common trust fund, or a nonpublicly offered RIC) generally will not be eligible to deduct its allocable share of the related Trust REMIC's fees or expenses under Section 212 of the Code for any taxable year beginning after December 31, 2017, and before January 1, 2026. Prospective investors in Residual Securities are urged to consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

## **MX Securities**

For a discussion of certain United States federal income tax consequences applicable to the MX Classes, see "Certain United States Federal Income Tax Consequences — Tax Treatment of MX Securities", "— Exchanges of MX Classes and Regular Classes" and "— Taxation of Foreign Holders of REMIC Securities and MX Securities" in the Base Offering Circular.

In the case of certain Holders of MX Securities that use an accrual method of accounting, these tax consequences are modified by newly enacted legislation as described above for a Holder of Regular Securities. Prospective investors in MX Securities that use an accrual method of accounting for tax purposes are urged to consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

## Foreign Account Tax Compliance Act

The Service has issued proposed regulations, on which taxpayers may rely, that exclude gross proceeds from the sale or other disposition of Regular or MX Securities from the application of the withholding tax imposed under FATCA and related administrative guidance. For a discussion of FATCA, see "Certain United States Federal Income Tax Consequences — Taxation of Foreign Holders of REMIC Securities and MX Securities" in the Base Offering Circular.

Investors should consult their own tax advisors in determining the United States federal, state, local, foreign and any other tax consequences to them of the purchase, ownership and disposition of the Securities.

#### **ERISA MATTERS**

Ginnie Mae guarantees distributions of principal and interest with respect to the Securities. The Ginnie Mae Guaranty is supported by the full faith and credit of the United States of America. The Regular and MX Securities will qualify as "guaranteed governmental mortgage pool certificates" within the meaning of a Department of Labor regulation, the effect of which is to provide that mortgage loans and participations therein underlying a "guaranteed governmental mortgage pool certificate" will not be considered assets of an employee benefit plan subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), or subject to section 4975 of the Code (each, a "Plan"), solely by reason of the Plan's purchase and holding of that certificate.

Governmental plans and certain church plans, while not subject to the fiduciary responsibility provisions of ERISA or the prohibited transaction provisions of ERISA and the Code, may nevertheless be subject to local, state or other federal laws that are substantially similar to the foregoing provisions of ERISA and the Code.

Fiduciaries of any such plans should consult with their counsel before purchasing any of the Securities. In addition, because the Sponsor or the Co-Sponsor or any of their respective affiliates may receive certain benefits in connection with the sale or holding of the Regular or MX Securities, the purchase of the Regular or MX Securities using Plan assets over which any of these parties or their affiliates has discretionary authority or control, or renders "investment advice" (within the meaning of a Department of Labor regulation) for a fee with respect to the assets of a 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 Regular or MX Securities may not be purchased using the assets of any Plan if the Sponsor or the Co-Sponsor or any of their respective affiliates has discretionary authority or control 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 Regular or MX Securities or the transaction is not otherwise prohibited.

Prospective Plan Investors should consult with their advisors, however, to determine whether the purchase, holding or resale of a Security could give rise to a transaction that is prohibited or is not otherwise permissible under either ERISA or the Code.

See "ERISA Considerations" in the Base Offering Circular.

The Residual Securities are not offered to, and may not be transferred to, a Plan Investor.

### LEGAL INVESTMENT CONSIDERATIONS

Institutions whose investment activities are subject to legal investment laws and regulations or to review by certain regulatory authorities may be subject to restrictions on investment in the Securities. No representation is made about the proper characterization of any Class for legal investment or other purposes, or about the permissibility of the purchase by particular investors of any Class under applicable legal investment restrictions.

Investors should consult their own legal advisors regarding applicable investment restrictions and the effect of any restrictions on the liquidity of the Securities prior to investing in the Securities.

See "Legal Investment Considerations" in the Base Offering Circular.

### PLAN OF DISTRIBUTION

Subject to the terms and conditions of the Sponsor Agreement, the Sponsor has agreed to purchase all of the Securities if any are sold and purchased. The Sponsor proposes to offer the Regular and MX Classes to the public from time to time for sale in negotiated transactions at varying prices to be determined at the time of sale, plus accrued interest from (1) January 1, 2019 on the Fixed Rate and Delay Classes and (2) January 20, 2019 on the Floating Rate and Inverse Floating Rate Classes other than the Delay Classes. The Sponsor may effect these transactions by sales to or through certain securities dealers. These dealers may receive compensation in the form of discounts, concessions or commissions from the Sponsor and/or commissions from any purchasers for which they act as agents. Some of the Securities may be sold through dealers in relatively small sales. In the usual case, the commission charged on a relatively small sale of securities will be a higher percentage of the sales price than that charged on a large sale of securities.

### **INCREASE IN SIZE**

Before the Closing Date, Ginnie Mae, the Trustee and the Sponsor may agree to increase the size of this offering. In that event, the Securities will have the same characteristics as described in this Supplement, except that (1) the Original Class Principal Balance (or original Class Notional Balance) and (2) the Scheduled Principal Balances or Aggregate Scheduled Principal Balances of each Class receiving principal distributions or interest distributions based upon a notional balance from the same Trust Asset Group will increase by the same proportion. The Trust Agreement, the Final Data Statement, the Final Schedules and the Supplemental Statement, if any, will reflect any increase in the size of the transaction.

## **LEGAL MATTERS**

Certain legal matters will be passed upon for Ginnie Mae by Hunton Andrews Kurth LLP, for the Trust by Cleary Gottlieb Steen & Hamilton LLP and Marcell Solomon & Associates, P.C., and for the Trustee by Nixon Peabody LLP.

Available Combinations(1)

REMIC Securities	es			M	MX Securities			
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP	Final Distribution Date(4)
Security Group 1 Combination 1(5)								
EA	\$97,431,287	CA	\$101,685,131	PAC/AD	4.00%	FIX	38381BYF5	October 2048
EY	4,253,844	CB	101,685,131	PAC/AD	3.75	FIX	38381BYG3	October 2048
		CD	101,685,131	PAC/AD	3.50	FIX	38381BYH1	October 2048
		CE	101,685,131	PAC/AD	3.25	FIX	38381BYJ7	October 2048
		S	101,685,131	PAC/AD	3.00	FIX	38381BYK4	October 2048
		CH	50,842,565	PAC/AD	5.00	FIX	38381BYL2	October 2048
		IC	22,596,695	NTL (PAC/AD)	4.50	FIX/IO	38381BYM0	October 2048
Combination 2(5)								
EA	\$97,431,287	EB	\$ 97,431,287	PAC/AD	3.25%	FIX	38381BYN8	April 2048
		EC	97,431,287	PAC/AD	3.75	FIX	38381BYP3	April 2048
		ED	97,431,287	PAC/AD	3.50	FIX	38381BYQ1	April 2048
		EG	97,431,287	PAC/AD	3.00	FIX	38381BYR9	April 2048
		EH	48,715,643	PAC/AD	5.00	FIX	38381BYS7	April 2048
		IE	21,651,397	NTL (PAC/AD)	4.50	FIX/IO	38381BYT5	April 2048
Combination 3								1
LV	\$ 4,236,369	LY	\$ 17,909,017	SEQ	3.50%	FIX	38381BYU2	January 2049
LZ	8,822,850							
VL	4,849,798							
Security Group 4								
Combination 4								
FB	\$ 6,400,000	FM	\$ 32,000,000	PT	9	FLT	38381BYV0	January 2049
FC Combination 5	25,600,000							
FD	\$ 9,000,000	FN	\$ 45,000,000	PT	9	FLT	38381BYW8	January 2049
FE	36,000,000							

REMIC Securities	ırities			A	MX Securities			
	Original Class Principal Balance or Class	Related	Maximum Original Class Principal Balance or Class Notional	Principal	Interest	Interest	alsiD	Final Distribution
Class	Notional Balance	MX Class	Balance(2)	Type(3)	Rate	Type(3)	Number	Date(4)
Combination 6								
NA	\$42,385,000	NB	\$ 47,888,000	PAC I	3.50%	FIX	38381BYX6	October 2048
ND	5,503,000							
Combination 7								
NA	\$42,385,000	NC	\$ 49,281,000	PAC I	3.50%	FIX	38381BYY4	January 2049
ND	5,503,000							
NE	1,393,000							
Combination 8								
NG	\$31,371,000	NH	\$ 35,147,000	PAC I	3.50%	FIX	38381BYZ1	November 2048
NK	3,776,000							
Combination 9								
NG	\$31,371,000	Ń	\$ 35,869,000	PAC I	3.50%	FIX	38381BZA5	January 2049
NK	3,776,000							
NL	722,000							
Combination 10								
KB	\$ 5,549,000	NP	\$ 45,000,000	PT	3.50%	FIX	38381BZB3	January 2049
NG	31,371,000							
NK	3,776,000							
N	722,000							
UB	3,580,000							
ZK	1,000							
ZU	1,000							
Combination 11								
SC	\$25,600,000	SK	\$ 61,600,000	NTL(SEQ)	9	OI//NI	38381BZC1	January 2049
SE	36,000,000							
Security Group 7								
Combination 12								
MA	\$50,407,000	MB	\$ 56,670,000	SEQ	4.00%	FIX	38381BZD9	April 2046
MW	6,263,000							

REMIC Securities				Σ	MX Securities			
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP	Final Distribution Date(4)
Combination 13								
VA	\$ 2,987,000	В	\$ 11,984,012	SEQ	4.00%	FIX	38381BZE7	January 2049
VB	3,661,000			ı				
Z	5,336,012							
Security Group 8								
Combination 14								
SG	\$51,015,999	SI	\$ 71,682,666	NTL(PT)	9	OI/ANI	38381BZF4	January 2049
SH	20,666,667							
Combination 15								
SH	\$20,666,667	$_{ m NS}$	\$ 66,924,667	NTL(PT)	9	OI/ANI	38381BZG2	January 2049
SJ	46,258,000							
Combination 16								
KG	\$ 5,678,000	KJ	\$ 11,356,000	SCH/AD	3.50%	FIX	38381BZH0	January 2049
KH	5,678,000							
Combination 17								
KL	\$ 2,972,667	KN	\$ 5,945,334	SUP/AD	3.50%	FIX	38381BZJ6	January 2049
KM	2,972,667							
Combination 18								
KV	\$ 4,363,000	KD	\$ 13,442,000	SEQ	3.50%	FIX	38381BZK3	January 2049
PZ	9,079,000							

(1) All exchanges must comply with minimum denomination restrictions.

The amount shown for each MX Class represents the maximum Original Class Principal Balance (or original Class Notional Balance) of that Class, assuming it were to be issued on the Closing Date.

As defined under "Class Types" in Appendix I to the Base Offering Circular.

See "Yield, Maturity and Prepayment Considerations — Final Distribution Date" in this Supplement. (4) In the case of Combinations 1 and 2, various subcombinations are permitted. See "Description of the Securities - Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations. (3)

The Interest Rate will be calculated as described under "Terms Sheet — Interest Rates" in this Supplement. 9

# Schedule II

# SCHEDULED PRINCIPAL BALANCES

Distribution Date	Classes CY, EA and EY (in the aggregate)	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
Initial Balance	\$104,215,440.00	\$101,516,975.00	\$5,015,000.00	\$5,550,000.00
February 2019	103,960,553.02	101,276,748.63	5,000,991.98	5,538,678.52
March 2019	103,675,150.33	101,005,787.88	4,982,329.60	5,521,687.52
April 2019	103,359,317.15	100,704,204.61	4,959,030.25	5,499,034.44
May 2019	103,013,162.08	100,372,134.36	4,931,119.07	5,470,738.33
June 2019	102,636,817.01	100,009,736.30	4,898,628.88	5,436,829.97
July 2019	102,230,437.12	99,617,193.18	4,861,600.15	5,397,351.82
August 2019	101,794,200.76	99,194,711.17	4,820,081.06	5,352,358.12
September 2019	101,328,309.40	98,742,519.74	4,774,127.35	5,301,914.73
October 2019	100,832,987.43	98,260,871.51	4,723,802.32	5,246,099.18
November 2019	100,308,482.02	97,750,042.02	4,669,176.73	5,185,000.48
December 2019	99,755,062.95	97,210,329.50	4,610,328.70	5,118,719.08
January 2020	99,173,022.32	96,642,054.63	4,547,343.62	5,047,366.63
February 2020	98,562,674.36	96,045,560.20	4,480,314.00	4,971,065.86
March 2020	97,924,355.08	95,421,210.87	4,409,339.32	4,889,950.34
April 2020	97,258,422.02	94,769,392.73	4,334,525.92	4,804,164.19
May 2020	96,565,253.84	94,090,512.97	4,255,986.78	4,713,861.87
June 2020	95,845,250.01	93,384,999.48	4,173,841.34	4,619,207.84
July 2020	95,098,830.37	92,653,300.39	4,088,215.32	4,520,376.18
August 2020	94,326,434.70	91,895,883.62	3,999,240.50	4,417,550.32
September 2020	93,528,522.32	91,113,236.40	3,907,054.44	4,310,922.58
October 2020	92,705,571.54	90,305,864.72	3,811,800.34	4,200,693.79
November 2020	91,858,079.19	89,474,292.85	3,713,626.67	4,087,072.81
December 2020	90,986,560.10	88,619,062.73	3,612,686.98	3,970,276.09
January 2021	90,091,546.54	87,740,733.41	3,509,139.58	3,850,527.20
February 2021	89,173,587.61	86,839,880.40	3,403,147.31	3,728,056.29
March 2021	88,233,248.69	85,917,095.10	3,294,877.15	3,603,099.57
April 2021	87,271,110.81	84,972,984.10	3,184,500.00	3,475,898.77
May 2021	86,287,769.97	84,008,168.54	3,072,190.26	3,346,700.58
June 2021	85,283,836.54	83,051,460.67	2,962,293.53	3,215,756.05
July 2021	84,287,685.94	82,102,794.95	2,854,776.05	3,088,300.46
August 2021	83,299,253.24	81,162,106.34	2,749,604.47	2,964,271.59
September 2021	82,318,473.97	80,229,330.34	2,646,745.84	2,843,608.13
October 2021	81,345,284.21	79,304,402.95	2,546,167.59	2,726,249.74
November 2021	80,379,620.49	78,387,260.67	2,447,837.57	2,612,137.00
December 2021	79,421,419.89	77,477,840.53	2,351,723.96	2,501,211.42
January 2022	78,470,619.95	76,576,080.04	2,257,795.37	2,393,415.40
February 2022	77,527,158.71	75,681,917.21	2,166,020.74	2,288,692.22
March 2022	76,590,974.68	74,795,290.55	2,076,369.43	2,186,986.07
April 2022	75,662,006.88	73,916,139.05	1,988,811.12	2,088,242.00
May 2022	74,740,194.78	73,044,402.20	1,903,315.86	1,992,405.90
June 2022	73,825,478.35	72,180,019.94	1,819,854.11	1,899,424.50
July 2022	72,917,798.00	71,322,932.73	1,738,396.62	1,809,245.37
August 2022	72,017,094.64	70,473,081.47	1,658,914.51	1,721,816.89

Distribution Date	Classes CY, EA and EY (in the aggregate)	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
September 2022	\$ 71,123,309.60	\$ 69,630,407.55	\$1,581,379.26	\$1,637,088.25
October 2022	70,236,384.72	68,794,852.81	1,505,762.69	1,555,009.43
November 2022	69,356,262.26	67,966,359.57	1,432,036.94	1,475,531.20
December 2022	68,482,884.93	67,144,870.59	1,360,174.52	1,398,605.10
January 2023	67,616,195.92	66,330,329.10	1,290,148.25	1,324,183.42
February 2023	66,756,138.83	65,522,678.78	1,221,931.26	1,252,219.20
March 2023	65,902,657.71	64,721,863.75	1,155,497.04	1,182,666.24
April 2023	65,055,697.07	63,927,828.58	1,090,819.40	1,115,479.03
May 2023	64,215,201.83	63,140,518.29	1,027,872.42	1,050,612.83
June 2023	63,381,117.34	62,359,878.32	966,630.55	988,023.53
July 2023	62,553,389.39	61,585,854.55	907,068.52	927,667.80
August 2023	61,731,964.18	60,818,393.30	849,161.38	869,502.94
September 2023	60,916,788.36	60,057,441.30	792,884.49	813,486.94
October 2023	60,107,808.95	59,302,945.74	738,213.47	759,578.47
November 2023	59,304,973.43	58,554,854.18	685,124.29	707,736.84
December 2023	58,508,229.67	57,813,114.63	633,593.19	657,922.02
January 2024	57,717,525.93	57,077,675.51	583,596.69	610,094.60
February 2024	56,932,810.90	56,348,485.64	535,111.62	564,215.83
March 2024	56,154,033.67	55,625,494.27	488,115.06	520,247.54
April 2024	55,381,143.72	54,908,651.03	442,584.41	478,152.19
May 2024	54,614,090.91	54,197,905.96	398,497.33	437,892.86
June 2024	53,852,825.52	53,493,209.51	355,831.74	399,433.18
July 2024	53,097,298.20	52,794,512.49	314,565.87	362,737.41
August 2024	52,347,459.99	52,101,766.15	274,678.18	327,770.35
September 2024	51,603,262.31	51,414,922.08	236,147.43	294,497.38
October 2024	50,864,656.96	50,733,932.30	198,952.61	262,884.45
November 2024	50,131,596.11	50,058,749.18	163,072.98	232,898.03
December 2024	49,404,032.33	49,389,325.49	128,488.07	204,505.17
January 2025	48,681,918.51	48,725,614.36	95,177.64	177,673.42
February 2025	47,965,207.96	48,067,569.30	63,121.75	152,370.89
March 2025	47,253,854.32	47,415,144.20	32,300.63	128,566.17
April 2025	46,547,811.60	46,768,293.31	2,694.83	106,228.39
May 2025	45,847,034.18	46,126,971.23	0.00	85,536.49
June 2025	45,151,476.78	45,491,132.95	0.00	67,230.35
July 2025	44,461,094.48	44,860,733.79	0.00	51,250.02
August 2025	43,779,892.51	44,235,729.46	0.00	37,536.76
September 2025	43,108,631.45	43,616,076.00	0.00	26,032.95
October 2025	42,447,170.31	43,001,729.79	0.00	16,682.15
November 2025	41,795,370.04	42,392,647.59	0.00	9,429.00
December 2025	41,153,093.57	41,788,786.48	0.00	4,219.27
January 2026	40,520,205.70	41,190,103.89	0.00	999.82
February 2026	39,896,573.14	40,596,557.59	0.00	0.00
March 2026	39,282,064.44	40,008,105.69	0.00	0.00
April 2026	38,676,550.00	39,424,706.63	0.00	0.00
May 2026	38,079,902.03	38,846,319.18	0.00	0.00
June 2026	37,491,994.49	38,272,902.45	0.00	0.00
July 2026	36,912,703.15	37,704,415.85	0.00	0.00

Distribution Date	Classes CY, EA and EY (in the aggregate)	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
August 2026	\$ 36,341,905.47	\$ 37,140,819.15	\$ 0.00	\$ 0.00
September 2026	35,779,480.63	36,582,072.41	0.00	0.00
October 2026	35,225,309.52	36,028,136.04	0.00	0.00
November 2026	34,679,274.67	35,479,150.40	0.00	0.00
December 2026	34,141,260.25	34,938,071.26	0.00	0.00
January 2027	33,611,152.06	34,404,788.36	0.00	0.00
February 2027	33,088,837.48	33,879,192.94	0.00	0.00
March 2027	32,574,205.49	33,361,177.74	0.00	0.00
April 2027	32,067,146.58	32,850,636.96	0.00	0.00
May 2027	31,567,552.82	32,347,466.24	0.00	0.00
June 2027	31,075,317.75	31,851,562.65	0.00	0.00
July 2027	30,590,336.41	31,362,824.69	0.00	0.00
August 2027	30,112,505.32	30,881,152.23	0.00	0.00
September 2027	29,641,722.43	30,406,446.50	0.00	0.00
October 2027	29,177,887.12	29,938,610.11	0.00	0.00
November 2027	28,720,900.19	29,477,546.98	0.00	0.00
December 2027	28,270,663.82	29,023,162.37	0.00	0.00
January 2028	27,827,081.55	28,575,362.81	0.00	0.00
February 2028	27,390,058.30	28,134,056.14	0.00	0.00
March 2028	26,959,500.28	27,699,151.43	0.00	0.00
April 2028	26,535,315.05	27,270,559.03	0.00	0.00
May 2028	26,117,411.45	26,848,190.50	0.00	0.00
June 2028	25,705,699.58	26,431,958.61	0.00	0.00
July 2028	25,300,090.83	26,021,777.34	0.00	0.00
August 2028	24,900,497.82	25,617,561.84	0.00	0.00
September 2028	24,506,834.38	25,219,228.44	0.00	0.00
October 2028	24,119,015.58	24,826,694.58	0.00	0.00
November 2028	23,736,957.65	24,439,878.88	0.00	0.00
December 2028	23,360,578.00	24,058,701.04	0.00	0.00
January 2029	22,989,795.22	23,683,081.90	0.00	0.00
February 2029	22,624,529.03	23,312,943.35	0.00	0.00
March 2029	22,264,700.26	22,948,208.37	0.00	0.00
April 2029	21,910,230.88	22,588,801.00	0.00	0.00
May 2029	21,561,043.93	22,234,646.31	0.00	0.00
June 2029	21,217,063.54	21,885,670.43	0.00	0.00
July 2029	20,878,214.92	21,541,800.48	0.00	0.00
August 2029	20,544,424.32	21,202,964.59	0.00	0.00
September 2029	20,215,619.01	20,869,091.86	0.00	0.00
October 2029	19,891,727.30	20,540,112.40	0.00	0.00
November 2029	19,572,678.51	20,215,957.26	0.00	0.00
December 2029	19,258,402.95	19,896,558.45	0.00	0.00
January 2030	18,948,831.90	19,581,848.89	0.00	0.00
•	18,643,897.62	19,271,762.45	0.00	0.00
February 2030		18,966,233.91	0.00	
March 2030	18,343,533.32	18,665,198.93	0.00	0.00
April 2030	18,047,673.13	18,368,594.08	0.00	0.00
May 2030	17,756,252.15			0.00
June 2030	17,469,206.35	18,076,356.78	0.00	0.00

July 2030	Distribution Date	Classes CY, EA and EY (in the aggregate)	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
August 2030         16,907,988.75         17,504,738.87         0.00         0.00           September 2030         16,633,693.38         17,225,237.39         0.00         0.00           October 2030         16,363,520.04         16,949,861.69         0.00         0.00           November 2030         15,835,337.76         16,417,254.97         0.00         0.00           January 2031         15,587,200.07         16,147,909.60         0.00         0.00           February 2031         15,527,200.07         16,147,909.60         0.00         0.00           Agril 2031         15,072,551.87         15,638,284.91         0.00         0.00           Agril 2031         14,825,929.49         15,381,035.92         0.00         0.00           Mary 2031         14,825,929.49         15,381,035.92         0.00         0.00           June 2031         14,343,814.34         14,888,461.0         0.00         0.00           June 2031         14,343,814.34         14,888,461.0         0.00         0.00           July 2031         14,108,214.38         14,647,770.10         0.00         0.00           July 2031         13,647,667.28         14,410,571.11         0.00         0.00           September 2031	July 2030	\$ 17,186,472.62	\$ 17,788,425.33	\$ 0.00	\$ 0.00
September 2030         16,633,693.38         17,225,237.39         0.00         0.00           October 2030         16,363,526.04         16,949,861.69         0.00         0.00           November 2030         16,6097,427.09         16,678,553.40         0.00         0.00           December 2030         15,835,337.76         16,411,254.97         0.00         0.00           January 2031         15,577,200.07         16,147,906.0         0.00         0.00           February 2031         15,322,956.89         15,888,461.33         0.00         0.00           April 2031         14,825,929.49         15,381,035.92         0.00         0.00           April 2031         14,825,929.49         15,381,035.92         0.00         0.00           May 2031         14,838,043.47         15,132,950.63         0.00         0.00           June 2031         14,418,843.84.34         14,487,770.10         0.00         0.00           Juny 2031         14,418,8214.38         14,467,770.10         0.00         0.00           August 2031         13,847,667.28         14,410,571.11         0.00         0.00           September 2031         13,647,667.28         14,410,571.11         0.00         0.00           October 2031	•			0.00	0.00
October 2030         16,365,526.04         16,949,861.69         0.00         0.00           November 2030         16,097,427.09         16,678,553.40         0.00         0.00           December 2030         15,835,337.76         16,411,254.97         0.00         0.00           January 2031         15,587,230.07         16,147,909.60         0.00         0.00           Pebruary 2031         15,522,956.89         15,888,461.33         0.00         0.00           March 2031         14,825,924.99         15,381,035.92         0.00         0.00           April 2031         14,583,034.97         15,312,950.63         0.00         0.00           May 2031         14,583,034.97         15,312,950.63         0.00         0.00           July 2031         14,483,814.34         14,888,546.10         0.00         0.00           July 2031         13,876,182.60         14,410,770.10         0.00         0.00           September 2031         13,876,182.60         14,417,6898.35         0.00         0.00           September 2031         13,422,617.42         13,946,701.72         0.00         0.00           November 2031         13,209,827.5         3,719,931.82         0.00         0.00           December 2031 </td <td>e e e e e e e e e e e e e e e e e e e</td> <td></td> <td></td> <td>0.00</td> <td>0.00</td>	e e e e e e e e e e e e e e e e e e e			0.00	0.00
November 2030	*			0.00	0.00
December 2030				0.00	0.00
January 2031					
February 2031         15,322,956.89         15,888,461.33         0.00         0.00           March 2031         15,072,551.87         15,632,854.91         0.00         0.00           April 2031         14,825,929.49         15,381,035.92         0.00         0.00           May 2031         14,583,034.97         15,132,950.63         0.00         0.00           June 2031         14,343,814.34         14,888,546.10         0.00         0.00           August 2031         13,676,672.28         14,176,898.35         0.00         0.00           August 2031         13,647,667.28         14,176,898.35         0.00         0.00           September 2031         13,647,667.28         14,176,898.35         0.00         0.00           November 2031         13,200,982.75         13,719,931.82         0.00         0.00           November 2031         12,982,713.69         13,496,539.95         0.00         0.00           Pebruary 2032         12,767,761.37         13,276,478.04         0.00         0.00           January 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,841,553.22         0.00         0.00           May 2032				0.00	0.00
March 2031         15,072,551.87         15,632,854.91         0.00         0.00           April 2031         14,825,929.49         15,381,035.92         0.00         0.00           May 2031         14,583,344.97         15,132,950.63         0.00         0.00           June 2031         14,343,814.34         14,888,546.10         0.00         0.00           July 2031         14,108,214.38         14,647,770.10         0.00         0.00           August 2031         13,647,667.28         14,176,898.35         0.00         0.00           October 2031         13,647,667.28         14,176,898.35         0.00         0.00           October 2031         13,220,982.75         13,719,931.82         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           January 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           April 2032	•			0.00	0.00
April 2031         14,825,929.49         15,381,035.92         0.00         0.00           May 2031         14,583,034.97         15,132,950.63         0.00         0.00           June 2031         14,343,814.34         14,888,546.10         0.00         0.00           July 2031         14,108,214.38         14,647,770.10         0.00         0.00           August 2031         13,876,182.60         14,410,571.11         0.00         0.00           September 2031         13,642,617.42         13,946,701.72         0.00         0.00           November 2031         13,220,982.75         13,719,931.82         0.00         0.00           November 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           January 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,655,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           July 2032 <t< td=""><td>•</td><td></td><td></td><td></td><td></td></t<>	•				
May 2031         14,583,034.97         15,132,950.63         0.00         0.00           June 2031         14,348,814.34         14,888,546.10         0.00         0.00           July 2031         14,108,214.38         14,647,770.10         0.00         0.00           August 2031         13,876,182.60         14,410,571.11         0.00         0.00           September 2031         13,647,667.28         14,176,898.35         0.00         0.00           November 2031         13,220,982.75         13,719,931.82         0.00         0.00           November 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           January 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           Mary 2032         11,143,265.2         12,635,801.71         0.00         0.00           May 2032         11,147,1088.43         12,224,825.92.47         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           July 2032         <					
June 2031         14,343,814.34         14,888,546.10         0.00         0.00           July 2031         14,108,214.38         14,647,770.10         0.00         0.00           August 2031         13,876,182.60         14,410,571.11         0.00         0.00           September 2031         13,647,667.28         14,176,898.35         0.00         0.00           October 2031         13,200,982.75         13,719,931.82         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           January 2032         12,556,077.62         13,096,539.95         0.00         0.00           March 2032         12,556,077.62         13,095,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           July 2032         11,541,088.43         12,224,82.79         0.00         0.00           July 2032         1	•				
July 2031         14,108,214,38         14,647,770.10         0.00         0.00           August 2031         13,876,182,60         14,410,571.11         0.00         0.00           September 2031         13,647,667.28         14,176,898.35         0.00         0.00           October 2031         13,422,617.42         13,946,701.72         0.00         0.00           November 2031         13,200,982.75         13,719,931.82         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           January 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           June 2032         11,741,088.43         12,203,428.49         0.00         0.00           August 2032	•				
August 2031         13,876,182.60         14,410,571.11         0.00         0.00           September 2031         13,647,667.28         14,176,898.35         0.00         0.00           October 2031         13,422,617.42         13,946,701.72         0.00         0.00           November 2031         13,200,982.75         13,719,931.82         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,741,088.43         12,224,482.79         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,003,428.49         0.00         0.00           August 2032         11,545,048.40         12,023,428.49         0.00         0.00           September 2032         11,619.905.19         11,630,312.33         0.00         0.00           Soptember 2032 <td></td> <td></td> <td></td> <td></td> <td></td>					
September 2031         13,647,667.28         14,176,898.35         0.00         0.00           October 2031         13,422,617.42         13,946,701.72         0.00         0.00           November 2031         13,200,982.75         13,719,931.82         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           March 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           June 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,51,905.19         11,63,905.19         11,63,312.33         0.00         0.00           September 2032         10,794,715.44         11,438,165.14         0.00         0.00	- ·				
October 2031         13,422,617.42         13,946,701.72         0.00         0.00           November 2031         13,200,982.75         13,719,931.82         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           February 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,223,428.49         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,161,905.19         11,630,312.33         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032	-				
November 2031         13,200,982.75         13,719,931.82         0.00         0.00           December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           February 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,242,8592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,161,905.19         11,630,312.33         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           September 2032         10,799,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033 </td <td>*</td> <td></td> <td></td> <td></td> <td></td>	*				
December 2031         12,982,713.69         13,496,539.95         0.00         0.00           January 2032         12,767,761.37         13,276,478.04         0.00         0.00           February 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           Jule 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,745,048.40         12,023,428.49         0.00         0.00           August 2032         11,352,001.85         11,825,385.99         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,797,390.21         11,248,902.62         0.00         0.00           December 2032         10,799,390.21         11,489,902.62         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           Jebruary 2033					
January 2032         12,767,761.37         13,276,478.04         0.00         0.00           February 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,151,051.95         11,633,312.33         0.00         0.00           September 2032         11,161,905.19         11,633,312.33         0.00         0.00           November 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           March 2033         10,430,166.85         10,878,867.38         0.00         0.00           March 2033					
February 2032         12,556,077.62         13,059,698.74         0.00         0.00           March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,352,001.85         11,825,385.99         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033					
March 2032         12,347,614.95         12,846,155.32         0.00         0.00           April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,352,001.85         11,825,385.99         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           March 2033         10,254,186.93         10,698,013.95         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
April 2032         12,142,326.52         12,635,801.71         0.00         0.00           May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,352,001.85         11,825,385.99         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           March 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         9,910,290.50         10,344,437.89         0.00         0.00           Mary 2033         9,910,290.50         10,344,437.89         0.00         0.00           June 2033 <td< td=""><td>•</td><td></td><td></td><td></td><td></td></td<>	•				
May 2032         11,940,166.19         12,428,592.47         0.00         0.00           June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,352,001.85         11,825,385.99         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033 <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
June 2032         11,741,088.43         12,224,482.79         0.00         0.00           July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,352,001.85         11,825,385.99         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           Jule 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         <	-				
July 2032         11,545,048.40         12,023,428.49         0.00         0.00           August 2032         11,352,001.85         11,825,385.99         0.00         0.00           September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033	•				
August 2032       11,352,001.85       11,825,385.99       0.00       0.00         September 2032       11,161,905.19       11,630,312.33       0.00       0.00         October 2032       10,974,715.44       11,438,165.14       0.00       0.00         November 2032       10,790,390.21       11,248,902.62       0.00       0.00         December 2032       10,608,887.75       11,062,483.58       0.00       0.00         January 2033       10,430,166.85       10,878,867.38       0.00       0.00         February 2033       10,254,186.93       10,698,013.95       0.00       0.00         March 2033       10,080,907.97       10,519,883.77       0.00       0.00         April 2033       9,910,290.50       10,344,437.89       0.00       0.00         May 2033       9,742,295.64       10,171,637.87       0.00       0.00         June 2033       9,576,885.04       10,001,445.83       0.00       0.00         July 2033       9,576,885.04       10,001,445.83       0.00       0.00         July 2033       9,957,83.52       9,668,736.77       0.00       0.00         August 2033       9,9253,665.98       9,668,736.77       0.00       0.00         Septemb					
September 2032         11,161,905.19         11,630,312.33         0.00         0.00           October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,756,885.04         10,001,445.83         0.00         0.00           July 2033         9,414,020.91         9,833,824.41         0.00         0.00           August 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033         9,095,783.52         9,506,146.56         0.00         0.00           October 2033	• •				
October 2032         10,974,715.44         11,438,165.14         0.00         0.00           November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         9,414,020.91         9,833,824.41         0.00         0.00           August 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033         9,095,783.52         9,506,146.56         0.00         0.00           October 2033         8,787,291.70         9,188,315.67         0.00         0.00           November 2033 <t< td=""><td>9</td><td></td><td></td><td></td><td></td></t<>	9				
November 2032         10,790,390.21         11,248,902.62         0.00         0.00           December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         9,414,020.91         9,833,824.41         0.00         0.00           August 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033         9,095,783.52         9,506,146.56         0.00         0.00           October 2033         8,940,337.33         9,346,017.97         0.00         0.00           November 2033         8,787,291.70         9,188,315.67         0.00         0.00           December 2033 <td< td=""><td>*</td><td></td><td></td><td></td><td></td></td<>	*				
December 2032         10,608,887.75         11,062,483.58         0.00         0.00           January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         9,414,020.91         9,833,824.41         0.00         0.00           August 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033         9,095,783.52         9,506,146.56         0.00         0.00           October 2033         8,940,337.33         9,346,017.97         0.00         0.00           November 2033         8,787,291.70         9,188,315.67         0.00         0.00           December 2033         8,636,611.46         9,033,004.82         0.00         0.00           January 2034         8,					
January 2033         10,430,166.85         10,878,867.38         0.00         0.00           February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         9,414,020.91         9,833,824.41         0.00         0.00           August 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033         9,095,783.52         9,506,146.56         0.00         0.00           October 2033         8,940,337.33         9,346,017.97         0.00         0.00           November 2033         8,787,291.70         9,188,315.67         0.00         0.00           January 2034         8,488,261.91         8,880,051.08         0.00         0.00           February 2034         8,342,208.86         8,729,420.56         0.00         0.00           March 2034         8,198,4					
February 2033         10,254,186.93         10,698,013.95         0.00         0.00           March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         9,414,020.91         9,833,824.41         0.00         0.00           August 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033         9,095,783.52         9,506,146.56         0.00         0.00           October 2033         8,940,337.33         9,346,017.97         0.00         0.00           November 2033         8,787,291.70         9,188,315.67         0.00         0.00           December 2033         8,636,611.46         9,033,004.82         0.00         0.00           January 2034         8,488,261.91         8,880,051.08         0.00         0.00           February 2034         8,342,208.86         8,729,420.56         0.00         0.00           March 2034         8,198,41					
March 2033         10,080,907.97         10,519,883.77         0.00         0.00           April 2033         9,910,290.50         10,344,437.89         0.00         0.00           May 2033         9,742,295.64         10,171,637.87         0.00         0.00           June 2033         9,576,885.04         10,001,445.83         0.00         0.00           July 2033         9,414,020.91         9,833,824.41         0.00         0.00           August 2033         9,253,665.98         9,668,736.77         0.00         0.00           September 2033         9,095,783.52         9,506,146.56         0.00         0.00           October 2033         8,940,337.33         9,346,017.97         0.00         0.00           November 2033         8,787,291.70         9,188,315.67         0.00         0.00           December 2033         8,636,611.46         9,033,004.82         0.00         0.00           January 2034         8,488,261.91         8,880,051.08         0.00         0.00           February 2034         8,342,208.86         8,729,420.56         0.00         0.00           March 2034         8,198,418.60         8,581,079.87         0.00         0.00           April 2034         8,056,857.91<	•				
April 2033       9,910,290.50       10,344,437.89       0.00       0.00         May 2033       9,742,295.64       10,171,637.87       0.00       0.00         June 2033       9,576,885.04       10,001,445.83       0.00       0.00         July 2033       9,414,020.91       9,833,824.41       0.00       0.00         August 2033       9,253,665.98       9,668,736.77       0.00       0.00         September 2033       9,095,783.52       9,506,146.56       0.00       0.00         October 2033       8,940,337.33       9,346,017.97       0.00       0.00         November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00	•		, ,		
May 2033       9,742,295.64       10,171,637.87       0.00       0.00         June 2033       9,576,885.04       10,001,445.83       0.00       0.00         July 2033       9,414,020.91       9,833,824.41       0.00       0.00         August 2033       9,253,665.98       9,668,736.77       0.00       0.00         September 2033       9,095,783.52       9,506,146.56       0.00       0.00         October 2033       8,940,337.33       9,346,017.97       0.00       0.00         November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00		, ,			
June 2033       9,576,885.04       10,001,445.83       0.00       0.00         July 2033       9,414,020.91       9,833,824.41       0.00       0.00         August 2033       9,253,665.98       9,668,736.77       0.00       0.00         September 2033       9,095,783.52       9,506,146.56       0.00       0.00         October 2033       8,940,337.33       9,346,017.97       0.00       0.00         November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00					
July 2033       9,414,020.91       9,833,824.41       0.00       0.00         August 2033       9,253,665.98       9,668,736.77       0.00       0.00         September 2033       9,095,783.52       9,506,146.56       0.00       0.00         October 2033       8,940,337.33       9,346,017.97       0.00       0.00         November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00	•				
August 2033       9,253,665.98       9,668,736.77       0.00       0.00         September 2033       9,095,783.52       9,506,146.56       0.00       0.00         October 2033       8,940,337.33       9,346,017.97       0.00       0.00         November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00	•				
September 2033       9,095,783.52       9,506,146.56       0.00       0.00         October 2033       8,940,337.33       9,346,017.97       0.00       0.00         November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00	• •				
October 2033       8,940,337.33       9,346,017.97       0.00       0.00         November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00					
November 2033       8,787,291.70       9,188,315.67       0.00       0.00         December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00					
December 2033       8,636,611.46       9,033,004.82       0.00       0.00         January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00					
January 2034       8,488,261.91       8,880,051.08       0.00       0.00         February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00					
February 2034       8,342,208.86       8,729,420.56       0.00       0.00         March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00					
March 2034       8,198,418.60       8,581,079.87       0.00       0.00         April 2034       8,056,857.91       8,434,996.08       0.00       0.00	•				
April 2034	•				
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Distribution Date	Classes CY, EA and EY (in the aggregate)	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
June 2034	\$ 7,780,294.67	\$ 8,149,469.72	\$ 0.00	\$ 0.00
July 2034	7,645,228.01	8,009,963.55	0.00	0.00
August 2034	7,512,262.67	7,872,587.06	0.00	0.00
September 2034	7,381,367.73	7,737,309.54	0.00	0.00
October 2034	7,252,512.69	7,604,100.73	0.00	0.00
November 2034	7,125,667.52	7,472,930.77	0.00	0.00
December 2034	7,000,802.57	7,343,770.23	0.00	0.00
January 2035	6,877,888.66	7,216,590.07	0.00	0.00
February 2035	6,756,897.00	7,091,361.70	0.00	0.00
March 2035	6,637,799.22	6,968,056.87	0.00	0.00
April 2035	6,520,567.35	6,846,647.78	0.00	0.00
May 2035	6,405,173.82	6,727,106.99	0.00	0.00
June 2035	6,291,591.46	6,609,407.44	0.00	0.00
July 2035	6,179,793.49	6,493,522.46	0.00	0.00
August 2035	6,069,753.49	6,379,425.76	0.00	0.00
September 2035	5,961,445.46	6,267,091.40	0.00	0.00
October 2035	5,854,843.72	6,156,493.82	0.00	0.00
November 2035	5,749,923.01	6,047,607.79	0.00	0.00
December 2035	5,646,658.39	5,940,408.48	0.00	0.00
January 2036	5,545,025.29	5,834,871.37	0.00	0.00
February 2036	5,444,999.52	5,730,972.28	0.00	0.00
March 2036	5,346,557.18	5,628,687.41	0.00	0.00
April 2036	5,249,674.77	5,527,993.25	0.00	0.00
May 2036	5,154,329.09	5,428,866.65	0.00	0.00
June 2036	5,060,497.29	5,331,284.76	0.00	0.00
July 2036	4,968,156.83	5,235,225.08	0.00	0.00
August 2036	4,877,285.51	5,140,665.39	0.00	0.00
September 2036	4,787,861.46	5,047,583.82	0.00	0.00
October 2036	4,699,863.09	4,955,958.77	0.00	0.00
November 2036	4,613,269.14	4,865,768.98	0.00	0.00
December 2036	4,528,058.66	4,776,993.47	0.00	0.00
January 2037	4,444,210.99	4,689,611.55	0.00	0.00
February 2037	4,361,705.77	4,603,602.84	0.00	0.00
March 2037	4,280,522.95	4,518,947.22	0.00	0.00
April 2037	4,200,642.73	4,435,624.87	0.00	0.00
May 2037	4,122,045.64	4,353,616.26	0.00	0.00
June 2037	4,044,712.45	4,272,902.12	0.00	0.00
July 2037	3,968,624.24	4,193,463.44	0.00	0.00
August 2037	3,893,762.34	4,115,281.51	0.00	0.00
September 2037	3,820,108.36	4,038,337.85	0.00	0.00
October 2037	3,747,644.17	3,962,614.27	0.00	0.00
November 2037	3,676,351.90	3,888,092.83	0.00	0.00
December 2037	3,606,213.96	3,814,755.82	0.00	0.00
January 2038	3,537,212.97	3,742,585.80	0.00	0.00
February 2038	3,469,331.84	3,671,565.58	0.00	0.00
March 2038	3,402,553.71	3,601,678.21	0.00	0.00
April 2038	3,336,861.96	3,532,906.97	0.00	0.00
	5,550,001.70	J,JJ <del>2</del> ,J00.J/	0.00	0.00

Distribution Date	Classes CY, EA and EY (in the aggregate)	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
May 2038	\$ 3,272,240.23	\$ 3,465,235.38	\$ 0.00	\$ 0.00
June 2038	3,208,672.38	3,398,647.20	0.00	0.00
July 2038	3,146,142.50	3,333,126.42	0.00	0.00
August 2038	3,084,634.92	3,268,657.25	0.00	0.00
September 2038	3,024,134.20	3,205,224.12	0.00	0.00
October 2038	2,964,625.10	3,142,811.69	0.00	0.00
November 2038	2,906,092.64	3,081,404.84	0.00	0.00
December 2038	2,848,522.02	3,020,988.66	0.00	0.00
January 2039	2,791,898.67	2,961,548.44	0.00	0.00
February 2039	2,736,208.24	2,903,069.69	0.00	0.00
March 2039	2,681,436.57	2,845,538.13	0.00	0.00
April 2039	2,627,569.72	2,788,939.68	0.00	0.00
May 2039	2,574,593.94	2,733,260.45	0.00	0.00
June 2039	2,522,495.70	2,678,486.76	0.00	0.00
July 2039	2,471,261.64	2,624,605.11	0.00	0.00
August 2039	2,420,878.60	2,571,602.22	0.00	0.00
September 2039	2,371,333.64	2,519,464.96	0.00	0.00
October 2039	2,322,613.97	2,468,180.42	0.00	0.00
November 2039	2,274,707.01	2,417,735.86	0.00	0.00
December 2039	2,227,600.36	2,368,118.72	0.00	0.00
January 2040	2,181,281.78	2,319,316.62	0.00	0.00
February 2040	2,135,739.24	2,271,317.35	0.00	0.00
March 2040	2,090,960.87	2,224,108.90	0.00	0.00
April 2040	2,046,934.96	2,177,679.41	0.00	0.00
May 2040	2,003,650.00	2,132,017.18	0.00	0.00
June 2040	1,961,094.62	2,087,110.70	0.00	0.00
July 2040	1,919,257.63	2,042,948.61	0.00	0.00
August 2040	1,878,128.01	1,999,519.71	0.00	0.00
September 2040	1,837,694.88	1,956,812.99	0.00	0.00
October 2040	1,797,947.53	1,914,817.55	0.00	0.00
November 2040	1,758,875.43	1,873,522.68	0.00	0.00
December 2040	1,720,468.15	1,832,917.81	0.00	0.00
January 2041	1,682,715.47	1,792,992.53	0.00	0.00
February 2041	1,645,607.28	1,753,736.58	0.00	0.00
March 2041	1,609,133.64	1,715,139.82	0.00	0.00
April 2041	1,573,284.74	1,677,192.30	0.00	0.00
May 2041	1,538,050.93	1,639,884.17	0.00	0.00
June 2041	1,503,422.69	1,603,205.75	0.00	0.00
July 2041	1,469,390.64	1,567,147.49	0.00	0.00
August 2041	1,435,945.55	1,531,699.98	0.00	0.00
September 2041	1,403,078.30	1,496,853.93	0.00	0.00
October 2041	1,370,779.93	1,462,600.21	0.00	0.00
November 2041	1,339,041.61	1,428,929.79	0.00	0.00
December 2041	1,307,854.61	1,395,833.80	0.00	0.00
January 2042	1,277,210.37	1,363,303.48	0.00	0.00
February 2042	1,247,100.43	1,331,330.21	0.00	0.00
March 2042	1,217,516.46	1,299,905.47	0.00	0.00

Distribution Date	Classes CY, EA and EY (in the aggregate)	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
April 2042	\$ 1,188,450.26	\$ 1,269,020.88	\$ 0.00	\$ 0.00
May 2042	1,159,893.73	1,238,668.19	0.00	0.00
June 2042	1,131,838.91	1,208,839.25	0.00	0.00
July 2042	1,104,277.96	1,179,526.04	0.00	0.00
August 2042	1,077,203.14	1,150,720.64	0.00	0.00
September 2042	1,050,606.82	1,122,415.27	0.00	0.00
October 2042	1,024,481.52	1,094,602.24	0.00	0.00
November 2042	998,819.82	1,067,273.97	0.00	0.00
December 2042	973,614.45	1,040,423.02	0.00	0.00
January 2043	948,858.23	1,014,042.03	0.00	0.00
February 2043	924,544.08	988,123.75	0.00	0.00
March 2043	900,665.04	962,661.03	0.00	0.00
April 2043	877,214.24	937,646.85	0.00	0.00
May 2043	854,184.93	913,074.26	0.00	0.00
June 2043	831,570.44	888,936.43	0.00	0.00
July 2043	809,364.21	865,226.63	0.00	0.00
August 2043	787,559.77	841,938.21	0.00	0.00
September 2043	766,150.76	819,064.64	0.00	0.00
October 2043	745,130.89	796,599.47	0.00	0.00
November 2043	724,494.00	774,536.35	0.00	0.00
December 2043	704,233.99	752,869.01	0.00	0.00
January 2044	684,344.86	731,591.29	0.00	0.00
February 2044	664,820.70	710,697.11	0.00	0.00
March 2044	645,655.69	690,180.48	0.00	0.00
April 2044	626,844.11	670,035.49	0.00	0.00
May 2044	608,380.29	650,256.34	0.00	0.00
June 2044	590,258.67	630,837.28	0.00	0.00
July 2044	572,473.79	611,772.68	0.00	0.00
August 2044	555,020.22	593,056.96	0.00	0.00
September 2044	537,892.67	574,684.64	0.00	0.00
October 2044	521,085.88	556,650.32	0.00	0.00
November 2044	504,594.70	538,948.68	0.00	0.00
December 2044	488,414.05	521,574.46	0.00	0.00
January 2045	472,538.91	504,522.50	0.00	0.00
February 2045	456,964.36	487,787.71	0.00	0.00
March 2045	441,685.54	471,365.06	0.00	0.00
April 2045	426,697.67	455,249.62	0.00	0.00
May 2045	411,996.03	439,436.50	0.00	0.00
June 2045	397,575.98	423,920.92	0.00	0.00
July 2045	383,432.94	408,698.13	0.00	0.00
August 2045	369,562.42	393,763.49	0.00	0.00
September 2045	355,959.98	379,112.39	0.00	0.00
October 2045	342,621.26	364,740.31	0.00	0.00
November 2045	329,541.94	350,642.81	0.00	0.00
December 2045	316,717.79	336,815.48	0.00	0.00
January 2046	304,144.64	323,253.99	0.00	0.00
February 2046	291,818.37	309,954.10	0.00	0.00
1 0010mly 2010	2/1,010.3/	507,751.10	0.00	0.00

Distribution Date	Classes CY, EA and EY (in the aggregat	Classes PC and PY (in the aggregate)	Class UD	Classes KB and ZK (in the aggregate)
March 2046	\$ 279,734.	95 \$ 296,911.59	\$ 0.00	\$ 0.00
April 2046	267,890.	37 284,122.33	0.00	0.00
May 2046	256,280.	72 271,582.25	0.00	0.00
June 2046	244,902.	13 259,287.33	0.00	0.00
July 2046	233,750.	78 247,233.60	0.00	0.00
August 2046	222,822.	94 235,417.19	0.00	0.00
September 2046	212,114.	90 223,834.24	0.00	0.00
October 2046	201,623.	02 212,480.98	0.00	0.00
November 2046	191,343.	73 201,353.67	0.00	0.00
December 2046	181,273.	49 190,448.65	0.00	0.00
January 2047	171,408.	84 179,762.30	0.00	0.00
February 2047	161,746.	34 169,291.06	0.00	0.00
March 2047	152,282.	64 159,031.42	0.00	0.00
April 2047	143,014.	41 148,979.93	0.00	0.00
May 2047	133,938.	38 139,133.17	0.00	0.00
June 2047	125,051.	35 129,487.80	0.00	0.00
July 2047	116,350.	13 120,040.51	0.00	0.00
August 2047	107,831.	62 110,788.04	0.00	0.00
September 2047	99,492.	73 101,727.19	0.00	0.00
October 2047	91,330.	45 92,854.81	0.00	0.00
November 2047	83,341.	80 84,167.77	0.00	0.00
December 2047	75,523.	84 75,663.03	0.00	0.00
January 2048	67,873.	69 67,337.55	0.00	0.00
February 2048	60,388.	/	0.00	0.00
March 2048	53,065.		0.00	0.00
April 2048	45,901.	86 43,407.24	0.00	0.00
May 2048	38,894.	/	0.00	0.00
June 2048	32,042.		0.00	0.00
July 2048	25,340.	,	0.00	0.00
August 2048	18,787.		0.00	0.00
September 2048	12,381.		0.00	0.00
October 2048	6,118.	61 0.00	0.00	0.00
November 2048 and thereafter	0.	0.00	0.00	0.00

Distribution Date	Classes CZ and KC (in the aggregate)	Classes NA, ND and NE (in the aggregate)	Classes NG, NK and NL (in the aggregate)	Classes BC and BL (in the aggregate)
Initial Balance	\$3,220,000.00	\$49,281,000.00	\$35,869,000.00	\$55,423,078.00
February 2019	3,213,561.68	49,171,637.94	35,793,731.66	55,242,893.65
March 2019	3,203,901.46	49,045,983.91	35,705,871.36	55,045,508.18
April 2019	3,191,024.69	48,904,083.47	35,605,450.17	54,830,989.01
May 2019	3,174,943.06	48,745,994.74	35,492,509.80	54,599,416.71
June 2019	3,155,674.70	48,571,788.35	35,367,102.58	54,350,884.98
July 2019	3,133,244.13	48,381,547.42	35,229,291.46	54,085,500.57
August 2019	3,107,682.30	48,175,367.52	35,079,149.95	53,803,383.24
September 2019	3,079,026.52	47,953,356.61	34,916,762.14	53,504,665.68
October 2019	3,047,320.47	47,715,634.99	34,742,222.57	53,189,493.36
November 2019	3,012,614.12	47,462,335.16	34,555,636.23	52,858,024.47
December 2019	2,974,963.65	47,193,601.79	34,357,118.39	52,510,429.74
January 2020	2,934,431.39	46,909,591.51	34,146,794.58	52,146,892.29
February 2020	2,891,085.70	46,610,472.84	33,924,800.42	51,767,607.51
March 2020	2,845,000.83	46,296,426.02	33,691,281.48	51,372,782.81
April 2020	2,796,256.84	45,967,642.81	33,446,393.18	50,962,637.44
May 2020	2,744,939.38	45,624,326.37	33,190,300.60	50,537,402.30
June 2020	2,691,139.59	45,266,690.98	32,923,178.29	50,097,319.67
July 2020	2,634,953.86	44,894,961.90	32,645,210.13	49,642,642.99
August 2020	2,576,483.68	44,509,375.10	32,356,589.07	49,173,636.57
September 2020	2,515,835.40	44,110,177.03	32,057,516.94	48,690,575.35
October 2020	2,453,120.02	43,697,624.35	31,748,204.22	48,193,744.55
November 2020	2,388,452.94	43,271,983.69	31,428,869.80	47,683,439.44
December 2020	2,321,953.72	42,833,531.34	31,099,740.74	47,159,964.96
January 2021	2,253,745.82	42,382,552.95	30,761,051.94	46,623,635.40
February 2021	2,183,956.33	41,919,343.23	30,413,045.95	46,074,774.09
March 2021	2,112,715.67	41,444,205.65	30,055,972.61	45,513,713.02
April 2021	2,040,157.30	40,957,452.08	29,690,088.79	44,940,792.44
May 2021	1,966,417.46	40,459,402.44	29,315,658.06	44,356,360.57
June 2021	1,891,634.78	39,950,384.37	28,932,950.39	43,776,390.27
July 2021	1,818,784.55	39,445,635.79	28,553,763.16	43,200,843.53
August 2021	1,747,833.24	38,945,122.23	28,178,065.04	42,629,682.58
September 2021	1,678,747.81	38,448,809.48	27,805,824.96	42,062,870.00
October 2021	1,611,495.74	37,956,663.61	27,437,012.15	41,500,368.62
November 2021	1,546,044.98	37,468,650.97	27,071,596.09	40,942,141.58
December 2021	1,482,363.97	36,984,738.16	26,709,546.53	40,388,152.33
January 2022	1,420,421.64	36,504,892.05	26,350,833.49	39,838,364.57
February 2022	1,360,187.36	36,029,079.78	25,995,427.26	39,292,742.30
March 2022	1,301,630.99	35,557,268.74	25,643,298.38	38,751,249.81
April 2022	1,244,722.83	35,089,426.60	25,294,417.64	38,213,851.67
May 2022	1,189,433.66	34,625,521.25	24,948,756.10	37,680,512.71
June 2022	1,135,734.65	34,165,520.88	24,606,285.08	37,151,198.05
July 2022	1,083,597.46	33,709,393.90	24,266,976.13	36,625,873.09
August 2022	1,032,994.16	33,257,108.98	23,930,801.07	36,104,503.48
September 2022	983,897.24	32,808,635.05	23,597,731.96	35,587,055.16
October 2022	936,279.62	32,363,941.26	23,267,741.10	35,073,494.33
November 2022	890,114.63	31,922,997.04	22,940,801.04	34,563,787.45

Distribution Date	Classes CZ and KC (in the aggregate)	Classes NA, ND and NE (in the aggregate)	Classes NG, NK and NL (in the aggregate)	Classes BC and BL (in the aggregate)
December 2022	\$ 845,376.00	\$31,485,772.03	\$22,616,884.56	\$34,057,901.25
January 2023	802,037.88	31,052,236.14	22,295,964.70	33,555,802.71
February 2023	760,074.79	30,622,359.51	21,978,014.72	33,057,459.08
March 2023	719,461.67	30,196,112.49	21,663,008.11	32,562,837.86
April 2023	680,173.82	29,773,465.72	21,350,918.61	32,071,906.81
May 2023	642,186.93	29,354,390.01	21,041,720.17	31,584,633.94
June 2023	605,477.07	28,938,856.46	20,735,387.00	31,100,987.51
July 2023	570,020.67	28,526,836.37	20,431,893.50	30,620,936.02
August 2023	535,794.53	28,118,301.26	20,131,214.32	30,144,448.23
September 2023	502,775.80	27,713,222.91	19,833,324.32	29,671,493.14
October 2023	470,941.98	27,311,573.28	19,538,198.59	29,202,039.98
November 2023	440,270.94	26,913,324.59	19,245,812.43	28,736,058.25
December 2023	410,740.88	26,518,449.27	18,956,141.35	28,273,517.66
January 2024	382,330.32	26,126,919.97	18,669,161.11	27,814,388.17
February 2024	355,018.14	25,738,709.54	18,384,847.64	27,358,639.97
March 2024	328,783.55	25,353,791.07	18,103,177.11	26,906,243.48
April 2024	303,606.07	24,972,137.86	17,824,125.89	26,457,169.37
May 2024	279,465.53	24,593,723.41	17,547,670.54	26,011,388.51
June 2024	256,342.10	24,218,521.43	17,273,787.87	25,568,872.02
July 2024	234,216.25	23,846,505.87	17,002,454.84	25,129,591.23
August 2024	213,068.75	23,477,650.84	16,733,648.66	24,693,517.72
September 2024	192,880.67	23,111,930.71	16,467,346.71	24,260,623.26
October 2024	173,633.40	22,749,319.99	16,203,526.58	23,830,879.86
November 2024	155,308.59	22,389,793.46	15,942,166.06	23,404,259.73
December 2024	137,888.21	22,033,326.05	15,683,243.12	22,980,735.32
January 2025	121,354.49	21,679,892.91	15,426,735.95	22,560,279.29
February 2025	105,689.94	21,329,469.39	15,172,622.90	22,146,418.85
March 2025	90,877.38	20,982,031.03	14,920,882.54	21,739,904.70
April 2025	76,899.86	20,637,553.57	14,671,493.61	21,340,609.26
May 2025	64,010.08	20,296,012.95	14,424,435.03	20,948,407.09
June 2025	52,383.41	19,957,385.27	14,179,685.94	20,563,174.94
July 2025	41,989.18	19,621,646.85	13,937,225.63	20,184,791.62
August 2025	32,797.34	19,288,774.20	13,697,033.58	19,813,138.07
September 2025	24,778.39	18,958,744.01	13,459,089.45	19,448,097.22
October 2025	17,903.43	18,631,533.14	13,223,373.09	19,089,554.04
November 2025	12,144.10	18,307,118.66	12,989,864.52	18,737,395.45
December 2025	7,472.62	17,985,477.80	12,758,543.94	18,391,510.32
January 2026	3,861.72	17,666,587.99	12,529,391.70	18,051,789.41
February 2026	1,284.67	17,350,426.84	12,302,388.37	17,718,125.36
March 2026	0.00	17,036,972.12	12,078,120.49	17,390,412.67
April 2026	0.00	16,726,201.78	11,857,800.20	17,068,547.61
May 2026	0.00	16,419,202.13	11,641,359.53	16,752,428.26
June 2026	0.00	16,419,202.15	11,641,559.55	16,441,954.43
•	0.00	15,821,420.12	11,428,751.00	16,137,027.67
July 2026				
August 2026	0.00	15,530,451.13	11,014,652.72	15,837,551.20
September 2026	0.00	15,244,641.71	10,813,073.59	15,543,429.91
October 2026	0.00	14,963,902.45	10,615,051.16	15,254,570.31

Distribution Date	Classes CZ and KC (in the aggregate)	Classes NA, ND and NE (in the aggregate)	Classes NG, NK and NL (in the aggregate)	Classes BC and BL (in the aggregate)
November 2026	\$ 0.00	\$14,688,145.51	\$10,420,524.07	\$14,970,880.54
December 2026	0.00	14,417,284.51	10,229,432.04	14,692,270.30
January 2027	0.00	14,151,234.57	10,041,715.79	14,418,650.83
February 2027	0.00	13,889,912.23	9,857,317.07	14,149,934.93
March 2027	0.00	13,633,235.49	9,676,178.61	13,886,036.87
April 2027	0.00	13,381,123.72	9,498,244.10	13,626,872.40
May 2027	0.00	13,133,497.69	9,323,458.22	13,372,358.72
June 2027	0.00	12,890,279.50	9,151,766.55	13,122,414.45
July 2027	0.00	12,651,392.59	8,983,115.62	12,876,959.62
August 2027	0.00	12,416,761.73	8,817,452.88	12,635,915.63
September 2027	0.00	12,186,312.94	8,654,726.64	12,399,205.23
October 2027	0.00	11,959,973.53	8,494,886.13	12,166,752.50
November 2027	0.00	11,737,672.03	8,337,881.41	11,938,482.83
December 2027	0.00	11,519,338.23	8,183,663.40	11,714,322.89
January 2028	0.00	11,304,903.07	8,032,183.88	11,494,200.62
February 2028	0.00	11,094,298.72	7,883,395.41	11,278,045.19
March 2028	0.00	10,887,458.48	7,737,251.39	11,065,787.00
April 2028	0.00	10,684,316.80	7,593,706.00	10,857,357.64
May 2028	0.00	10,484,809.25	7,452,714.20	10,652,689.90
June 2028	0.00	10,288,872.50	7,314,231.73	10,451,717.71
July 2028	0.00	10,096,444.33	7,178,215.07	10,254,376.13
August 2028	0.00	9,907,463.55	7,044,621.45	10,060,601.37
September 2028	0.00	9,721,870.04	6,913,408.82	9,870,330.71
October 2028	0.00	9,539,604.70	6,784,535.87	9,683,502.54
November 2028	0.00	9,360,609.44	6,657,961.96	9,500,056.30
December 2028	0.00	9,184,827.19	6,533,647.18	9,319,932.46
January 2029	0.00	9,012,201.83	6,411,552.27	9,143,072.54
February 2029	0.00	8,842,678.21	6,291,638.66	8,969,419.07
March 2029	0.00	8,676,202.14	6,173,868.44	8,798,915.56
April 2029	0.00	8,512,720.34	6,058,204.33	8,631,506.50
May 2029	0.00	8,352,180.46	5,944,609.70	8,467,137.35
June 2029	0.00	8,194,531.05	5,833,048.54	8,305,754.50
July 2029	0.00	8,039,721.51	5,723,485.46	8,147,305.26
August 2029	0.00	7,887,702.16	5,615,885.67	7,991,737.88
September 2029	0.00	7,738,424.13	5,510,214.99	7,839,001.48
October 2029	0.00	7,591,839.42	5,406,439.80	7,689,046.07
November 2029	0.00	7,447,900.83	5,304,527.07	7,541,822.53
December 2029	0.00	7,306,562.00	5,204,444.33	7,397,282.57
January 2030	0.00	7,167,777.33	5,106,159.67	7,255,378.75
February 2030	0.00	7,031,502.04	5,009,641.72	7,116,064.47
March 2030	0.00	6,897,692.10	4,914,859.66	6,979,293.90
April 2030	0.00	6,766,304.24	4,821,783.18	6,845,022.04
May 2030	0.00	6,637,295.93	4,730,382.50	6,713,204.64
June 2030	0.00	6,510,625.39	4,640,628.35	6,583,798.24
July 2030	0.00	6,386,251.55	4,552,491.95	6,456,760.12
August 2030	0.00	6,264,134.03	4,465,945.03	6,332,048.30
September 2030	0.00	6,144,233.17	4,380,959.80	6,209,621.55

Distribution Date	Classes CZ and KC (in the aggregate)	Classes NA, ND and NE (in the aggregate)	Classes NG, NK and NL (in the aggregate)	Classes BC and BL (in the aggregate)
October 2030	\$ 0.00	\$ 6,026,509.99	\$ 4,297,508.93	\$ 6,089,439.33
November 2030	0.00	5,910,926.16	4,215,565.59	5,971,461.81
December 2030	0.00	5,797,444.03	4,135,103.38	5,855,649.86
January 2031	0.00	5,686,026.60	4,056,096.36	5,741,965.02
February 2031	0.00	5,576,637.51	3,978,519.06	5,630,369.51
March 2031	0.00	5,469,241.00	3,902,346.40	5,520,826.19
April 2031	0.00	5,363,801.97	3,827,553.78	5,413,298.59
May 2031	0.00	5,260,285.88	3,754,117.00	5,307,750.84
June 2031	0.00	5,158,658.83	3,682,012.26	5,204,147.73
July 2031	0.00	5,058,887.47	3,611,216.19	5,102,454.64
August 2031	0.00	4,960,939.04	3,541,705.82	5,002,637.55
September 2031	0.00	4,864,781.36	3,473,458.57	4,904,663.06
October 2031	0.00	4,770,382.78	3,406,452.26	4,808,498.31
November 2031	0.00	4,677,712.21	3,340,665.06	4,714,111.05
December 2031	0.00	4,586,739.11	3,276,075.55	4,621,469.56
January 2032	0.00	4,497,433.43	3,212,662.67	4,530,542.71
February 2032	0.00	4,409,765.69	3,150,405.70	4,441,299.87
March 2032	0.00	4,323,706.88	3,089,284.30	4,353,710.98
April 2032	0.00	4,239,228.51	3,029,278.48	4,267,746.49
May 2032	0.00	4,156,302.57	2,970,368.59	4,183,377.35
June 2032	0.00	4,074,901.57	2,912,535.31	4,100,575.05
July 2032	0.00	3,994,998.45	2,855,759.66	4,019,311.55
August 2032	0.00	3,916,566.64	2,800,023.00	3,939,559.32
September 2032	0.00	3,839,580.04	2,745,306.98	3,861,291.29
October 2032	0.00	3,764,012.98	2,691,593.59	3,784,480.87
November 2032	0.00	3,689,840.26	2,638,865.13	3,709,101.94
December 2032	0.00	3,617,037.10	2,587,104.20	3,635,128.85
January 2033	0.00	3,545,579.16	2,536,293.70	3,562,536.37
February 2033	0.00	3,475,442.51	2,486,416.82	3,491,299.72
March 2033	0.00	3,406,603.64	2,437,457.06	3,421,394.57
April 2033	0.00	3,339,039.45	2,389,398.18	3,352,796.99
May 2033	0.00	3,272,727.25	2,342,224.24	3,285,483.50
June 2033	0.00	3,207,644.73	2,295,919.57	3,219,431.00
July 2033	0.00	3,143,769.98	2,250,468.75	3,154,616.82
August 2033	0.00	3,081,081.45	2,205,856.66	3,091,018.66
September 2033	0.00	3,019,558.00	2,162,068.43	3,028,614.64
October 2033	0.00	2,959,178.82	2,119,089.44	2,967,383.25
November 2033	0.00	2,899,923.48	2,076,905.32	2,907,303.36
December 2033	0.00	2,841,771.92	2,035,501.96	2,848,354.19
January 2034	0.00	2,784,704.39	1,994,865.50	2,790,515.37
February 2034	0.00	2,728,701.53	1,954,982.29	2,733,766.84
March 2034	0.00	2,673,744.27	1,915,838.95	2,678,088.93
April 2034	0.00	2,619,813.93	1,877,422.32	2,623,462.29
May 2034	0.00	2,566,892.09	1,839,719.46	2,569,867.91
June 2034	0.00	2,514,960.70	1,802,717.66	2,517,287.14
July 2034	0.00	2,464,002.01	1,766,404.44	2,465,701.64
August 2034	0.00	2,413,998.58	1,730,767.52	2,415,093.38

Distribution Date	Classes CZ and KC (in the aggregate)	Classes NA, ND and NE (in the aggregate)	Classes NG, NK and NL (in the aggregate)	Classes BC and BL (in the aggregate)
September 2034	\$ 0.00	\$ 2,364,933.26	\$ 1,695,794.85	\$ 2,365,444.67
October 2034	0.00	2,316,789.22	1,661,474.57	2,316,738.12
November 2034	0.00	2,269,549.91	1,627,795.04	2,268,956.65
December 2034	0.00	2,223,199.09	1,594,744.82	2,222,083.48
January 2035	0.00	2,177,720.77	1,562,312.66	2,176,102.13
February 2035	0.00	2,133,099.28	1,530,487.53	2,130,996.40
March 2035	0.00	2,089,319.18	1,499,258.56	2,086,750.38
April 2035	0.00	2,046,365.33	1,468,615.08	2,043,348.44
May 2035	0.00	2,004,222.85	1,438,546.62	2,000,775.24
June 2035	0.00	1,962,877.12	1,409,042.88	1,959,015.69
July 2035	0.00	1,922,313.76	1,380,093.74	1,918,054.98
August 2035	0.00	1,882,518.67	1,351,689.26	1,877,878.55
September 2035	0.00	1,843,477.98	1,323,819.66	1,838,472.10
October 2035	0.00	1,805,178.06	1,296,475.35	1,799,821.60
November 2035	0.00	1,767,605.53	1,269,646.90	1,761,913.26
December 2035	0.00	1,730,747.24	1,243,325.03	1,724,733.51
January 2036	0.00	1,694,590.26	1,217,500.65	1,688,269.04
February 2036	0.00	1,659,121.90	1,192,164.79	1,652,506.79
March 2036	0.00	1,624,329.69	1,167,308.69	1,617,433.91
April 2036	0.00	1,590,201.39	1,142,923.69	1,583,037.78
May 2036	0.00	1,556,724.95	1,119,001.31	1,549,306.01
June 2036	0.00	1,523,888.55	1,095,533.21	1,516,226.43
July 2036	0.00	1,491,680.57	1,072,511.20	1,483,787.08
August 2036	0.00	1,460,089.60	1,049,927.23	1,451,976.21
September 2036	0.00	1,429,104.43	1,027,773.40	1,420,782.29
October 2036	0.00	1,398,714.05	1,006,041.92	1,390,193.99
November 2036	0.00	1,368,907.62	984,725.18	1,360,200.18
December 2036	0.00	1,339,674.53	963,815.66	1,330,789.92
January 2037	0.00	1,311,004.33	943,306.00	1,301,952.48
February 2037	0.00	1,282,886.76	923,188.96	1,273,677.30
March 2037	0.00	1,255,311.75	903,457.42	1,245,954.04
April 2037	0.00	1,228,269.39	884,104.41	1,218,772.51
May 2037	0.00	1,201,749.95	865,123.04	1,192,122.73
June 2037	0.00	1,175,743.90	846,506.58	1,165,994.86
July 2037	0.00	1,150,241.83	828,248.40	1,140,379.29
August 2037	0.00	1,125,234.53	810,342.00	1,115,266.53
September 2037	0.00	1,100,712.95	792,780.96	1,090,647.28
October 2037	0.00	1,076,668.19	775,559.02	1,066,512.42
November 2037	0.00	1,053,091.50	758,669.99	1,042,852.97
December 2037	0.00	1,029,974.31	742,107.82	1,019,660.12
January 2038	0.00	1,007,308.19	725,866.54	996,925.21
February 2038	0.00	985,084.85	709,940.30	974,639.75
March 2038	0.00	963,296.15	694,323.36	952,795.40
April 2038	0.00	941,934.10	679,010.06	931,383.94
May 2038	0.00	920,990.86	663,994.85	910,397.34
June 2038	0.00	900,458.71	649,272.29	889,827.68
July 2038	0.00	880,330.07	634,837.01	869,667.21
J / -U =	0.00	===,550.07	-5-,-57.01	

Distribution Date	Classes CZ and KC (in the aggregate)	Classes NA, ND and NE (in the aggregate)	Classes NG, NK and NL (in the aggregate)	Classes BC and BL (in the aggregate)
August 2038	\$ 0.00	\$ 860,597.52	\$ 620,683.76	\$ 849,908.29
September 2038	0.00	841,253.73	606,807.37	830,543.44
October 2038	0.00	822,291.54	593,202.77	811,565.30
November 2038	0.00	803,703.89	579,864.96	792,966.64
December 2038	0.00	785,483.86	566,789.05	774,740.39
January 2039	0.00	767,624.64	553,970.22	756,879.56
February 2039	0.00	750,119.56	541,403.75	739,377.32
March 2039	0.00	732,962.05	529,085.00	722,226.96
April 2039	0.00	716,145.68	517,009.40	705,421.87
May 2039	0.00	699,664.10	505,172.47	688,955.57
June 2039	0.00	683,511.11	493,569.82	672,821.71
July 2039	0.00	667,680.59	482,197.12	657,014.05
August 2039	0.00	652,166.55	471,050.12	641,526.43
September 2039	0.00	636,963.10	460,124.65	626,352.85
October 2039	0.00	622,064.46	449,416.62	611,487.38
November 2039	0.00	607,464.94	438,921.99	596,924.22
December 2039	0.00	593,158.96	428,636.83	582,657.67
January 2040	0.00	579,141.05	418,557.24	568,682.12
February 2040	0.00	565,405.82	408,679.42	554,992.08
March 2040	0.00	551,947.98	398,999.61	541,582.14
April 2040	0.00	538,762.35	389,514.14	528,447.01
May 2040	0.00	525,843.83	380,219.39	515,581.47
June 2040	0.00	513,187.41	371,111.82	502,980.42
July 2040	0.00	500,788.17	362,187.94	490,638.84
August 2040	0.00	488,641.29	353,444.32	478,551.80
September 2040	0.00	476,742.02	344,877.61	466,714.45
October 2040	0.00	465,085.70	336,484.49	455,122.06
November 2040	0.00	453,667.78	328,261.74	443,769.95
December 2040	0.00	442,483.74	320,206.15	432,653.55
January 2041	0.00	431,529.19	312,314.61	421,768.35
February 2041	0.00	420,799.79	304,584.04	411,109.95
March 2041	0.00	410,291.30	297,011.42	400,674.01
April 2041	0.00	399,999.53	289,593.79	390,456.27
May 2041	0.00	389,920.38	282,328.23	380,452.56
June 2041	0.00	380,049.83	275,211.89	370,658.77
July 2041	0.00	370,383.93	268,241.97	361,070.88
August 2041	0.00	360,918.79	261,415.70	351,684.94
September 2041	0.00	351,650.59	254,730.37	342,497.05
October 2041	0.00	342,575.61	248,183.34	333,503.42
November 2041	0.00	333,690.15	241,771.98	324,700.29
December 2041	0.00	324,990.61	235,493.74	316,084.01
January 2042	0.00	316,473.46	229,346.08	307,650.96
February 2042	0.00	308,135.20	223,326.56	299,397.60
March 2042	0.00	299,972.42	217,432.72	291,320.46
April 2042	0.00	291,981.76	211,662.20	283,416.14
May 2042	0.00	284,159.95	206,012.64	275,681.27
June 2042	0.00	276,503.72	200,481.75	268,112.58

Distribution Date	Classes CZ and KC (in the aggregate)	Classes NA, ND and NE (in the aggregate)	Classes NG, NK and NL (in the aggregate)	Classes BC and BL (in the aggregate)
July 2042	\$ 0.00	\$ 269,009.93	\$ 195,067.27	\$ 260,706.83
August 2042	0.00	261,675.44	189,766.99	253,460.87
September 2042	0.00	254,497.19	184,578.72	246,371.58
October 2042	0.00	247,472.19	179,500.33	239,435.91
November 2042	0.00	240,597.48	174,529.73	232,650.87
December 2042	0.00	233,870.16	169,664.84	226,013.51
January 2043	0.00	227,287.39	164,903.64	219,520.96
February 2043	0.00	220,846.39	160,244.16	213,170.37
March 2043	0.00	214,544.40	155,684.43	206,958.96
April 2043	0.00	208,378.73	151,222.55	200,884.02
May 2043	0.00	202,346.75	146,856.62	194,942.85
June 2043	0.00	196,445.87	142,584.81	189,132.84
July 2043	0.00	190,673.53	138,405.30	183,451.39
August 2043	0.00	185,027.24	134,316.32	177,895.98
September 2043	0.00	179,504.54	130,316.10	172,464.13
October 2043	0.00	174,103.03	126,402.94	167,153.38
November 2043	0.00	168,820.34	122,575.16	161,961.35
December 2043	0.00	163,654.16	118,831.09	156,885.70
January 2044	0.00	158,602.19	115,169.12	151,924.10
February 2044	0.00	153,662.21	111,587.65	147,074.30
March 2044	0.00	148,832.02	108,085.11	142,334.08
April 2044	0.00	144,109.47	104,659.97	137,701.26
May 2044	0.00	139,492.44	101,310.73	133,173.69
June 2044	0.00	134,978.86	98,035.89	128,749.29
July 2044	0.00	130,566.68	94,834.01	124,425.98
August 2044	0.00	126,253.92	91,703.66	120,201.75
September 2044	0.00	122,038.59	88,643.43	116,074.61
October 2044	0.00	117,918.79	85,651.96	112,042.63
November 2044	0.00	113,892.61	82,727.89	108,103.88
December 2044	0.00	109,958.20	79,869.90	104,256.49
January 2045	0.00	106,113.74	77,076.69	100,498.62
February 2045	0.00	102,357.44	74,346.97	96,828.47
March 2045	0.00	98,687.55	71,679.51	93,244.27
April 2045	0.00	95,102.34	69,073.06	89,744.28
May 2045	0.00	91,600.13	66,526.42	86,326.80
June 2045	0.00	88,179.24	64,038.40	82,990.14
July 2045	0.00	84,838.07	61,607.84	79,732.68
August 2045	0.00	81,575.00	59,233.61	76,552.79
September 2045	0.00	78,388.48	56,914.57	73,448.91
October 2045	0.00	75,276.96	54,649.63	70,419.47
November 2045	0.00	72,238.93	52,437.70	67,462.97
December 2045	0.00	69,272.91	50,277.74	64,577.90
January 2046	0.00	66,377.44	48,168.69	61,762.80
February 2046	0.00	63,551.11	46,109.54	59,016.24
March 2046	0.00	60,792.51	44,099.29	56,336.81
April 2046	0.00	58,100.26	42,136.95	53,723.12
May 2046	0.00	55,473.02	40,221.56	51,173.82

Distribution Date	Z and KC ggregate)	ľ	Classes NA, ND and NE he aggregate)	N	classes NG, NK and NL he aggregate)	ses BC and BL he aggregate)
June 2046	\$ 0.00	\$	52,909.46	\$	38,352.18	\$ 48,687.58
July 2046	0.00		50,408.30		36,527.86	46,263.09
August 2046	0.00		47,968.24		34,747.71	43,899.08
September 2046	0.00		45,588.05		33,010.82	41,594.29
October 2046	0.00		43,266.50		31,316.31	39,347.48
November 2046	0.00		41,002.39		29,663.34	37,157.46
December 2046	0.00		38,794.53		28,051.04	35,023.02
January 2047	0.00		36,641.76		26,478.60	32,943.02
February 2047	0.00		34,542.96		24,945.19	30,916.31
March 2047	0.00		32,497.00		23,450.02	28,941.77
April 2047	0.00		30,502.80		21,992.30	27,018.30
May 2047	0.00		28,559.28		20,571.27	25,144.84
June 2047	0.00		26,665.39		19,186.17	23,320.32
July 2047	0.00		24,820.09		17,836.26	21,543.71
August 2047	0.00		23,022.37		16,520.81	19,814.00
September 2047	0.00		21,271.25		15,239.11	18,130.19
October 2047	0.00		19,565.74		13,990.46	16,491.30
November 2047	0.00		17,904.88		12,774.18	14,896.38
December 2047	0.00		16,287.75		11,589.58	13,344.48
January 2048	0.00		14,713.42		10,436.02	11,834.70
February 2048	0.00		13,180.99		9,312.84	10,366.11
March 2048	0.00		11,689.58		8,219.41	8,937.85
April 2048	0.00		10,238.30		7,155.11	7,549.04
May 2048	0.00		8,826.33		6,119.31	6,198.83
June 2048	0.00		7,452.81		5,111.43	4,886.38
July 2048	0.00		6,116.94		4,130.87	3,610.88
August 2048	0.00		4,817.90		3,177.06	2,371.53
September 2048	0.00		3,554.91		2,249.43	1,167.53
October 2048	0.00		2,327.19		1,347.42	0.00
November 2048	0.00		1,134.00		470.49	0.00
December 2048 and thereafter	0.00		0.00		0.00	0.00

Distribution Date	Classes A and ZA (in the aggregate)	Classes KG, KH and MZ (in the aggregate)	Classes PA and PB (in the aggregate)	Classes PD and PE (in the aggregate)
Initial Balance	\$20,038,000.00	\$11,357,000.00	\$143,423,000.00	\$58,062,000.00
February 2019	19,984,256.73	11,334,255.43	143,027,803.98	57,931,833.45
March 2019	19,923,441.99	11,300,129.99	142,590,640.45	57,782,484.36
April 2019	19,855,574.97	11,254,643.13	142,111,660.45	57,614,007.48
May 2019	19,780,681.32	11,197,836.86	141,591,047.19	57,426,472.32
June 2019	19,698,793.15	11,129,775.81	141,029,015.97	57,219,963.11
July 2019	19,609,949.02	11,050,547.25	140,425,814.09	56,994,578.79
August 2019	19,514,193.94	10,960,261.09	139,781,720.67	56,750,432.97
September 2019	19,411,579.30	10,859,049.81	139,097,046.47	56,487,653.85
October 2019	19,302,162.88	10,747,068.28	138,372,133.67	56,206,384.11
November 2019	19,186,008.77	10,624,493.61	137,607,355.59	55,906,780.85
December 2019	19,063,187.32	10,491,524.87	136,803,116.35	55,589,015.42
January 2020	18,933,775.06	10,348,382.78	135,959,850.54	55,253,273.31
February 2020	18,797,854.64	10,195,309.36	135,078,022.84	54,899,753.96
March 2020	18,655,514.72	10,032,567.48	134,158,127.52	54,528,670.59
April 2020	18,506,849.90	9,860,440.39	133,200,688.05	54,140,250.02
May 2020	18,351,960.59	9,679,231.22	132,206,256.51	53,734,732.40
June 2020	18,190,952.90	9,489,262.30	131,175,413.08	53,312,371.02
July 2020	18,023,938.51	9,290,874.61	130,108,765.44	52,873,432.07
August 2020	17,851,034.54	9,084,427.04	129,006,948.15	52,418,194.30
September 2020	17,672,363.41	8,870,295.64	127,870,621.96	51,946,948.81
October 2020	17,488,052.67	8,648,872.85	126,700,473.15	51,459,998.70
November 2020	17,298,234.85	8,420,566.63	125,497,212.77	50,957,658.75
December 2020	17,103,047.31	8,185,799.63	124,261,575.89	50,440,255.13
January 2021	16,902,632.03	7,945,008.18	122,994,320.79	49,908,124.98
February 2021	16,697,135.44	7,698,641.42	121,696,228.16	49,361,616.12
March 2021	16,486,708.25	7,447,160.21	120,368,100.20	48,801,086.61
April 2021	16,271,505.22	7,191,036.17	119,010,759.80	48,226,904.38
May 2021	16,051,684.96	6,930,750.56	117,625,049.55	47,639,446.84
June 2021	15,827,409.75	6,666,793.19	116,250,096.08	47,039,100.45
July 2021	15,605,244.10	6,409,669.27	114,885,809.57	46,443,799.75
August 2021	15,385,166.58	6,159,260.05	113,532,100.87	45,853,503.92
September 2021	15,167,155.96	5,915,448.54	112,188,881.55	45,268,172.51
October 2021	14,951,191.20	5,678,119.52	110,856,063.87	44,687,765.34
November 2021	14,737,251.48	5,447,159.51	109,533,560.78	44,112,242.59
December 2021	14,525,316.17	5,222,456.76	108,221,285.91	43,541,564.73
January 2022	14,315,364.84	5,003,901.18	106,919,153.56	42,975,692.57
February 2022	14,107,377.24	4,791,384.38	105,627,078.72	42,414,587.20
March 2022	13,901,333.34	4,584,799.58	104,344,977.02	41,858,210.05
April 2022	13,697,213.29	4,384,041.64	103,072,764.77	41,306,522.84
May 2022	13,494,997.43	4,189,007.01	101,810,358.93	40,759,487.58
June 2022	13,294,666.28	3,999,593.72	100,557,677.11	40,217,066.62
July 2022	13,096,200.56	3,815,701.35	99,314,637.57	39,679,222.59
August 2022	12,899,581.17	3,637,230.99	98,081,159.21	39,145,918.40
September 2022	12,704,789.19	3,464,085.27	96,857,161.55	38,617,117.28
October 2022	12,511,805.88	3,296,168.29	95,642,564.77	38,092,782.74
November 2022	12,320,612.68	3,133,385.61	94,437,289.65	37,572,878.59

Distribution Date	Classes A and ZA (in the aggregate)	Classes KG, KH and MZ (in the aggregate)	Classes PA and PB (in the aggregate)	Classes PD and PE (in the aggregate)
December 2022	\$12,131,191.21	\$ 2,975,644.25	\$ 93,241,257.59	\$37,057,368.91
January 2023	11,943,523.27	2,822,852.64	92,054,390.62	36,546,218.10
February 2023	11,757,590.82	2,674,920.63	90,876,611.37	36,039,390.79
March 2023	11,573,376.01	2,531,759.44	89,707,843.08	35,536,851.95
April 2023	11,390,861.14	2,393,281.66	88,548,009.59	35,038,566.79
May 2023	11,210,028.71	2,259,401.23	87,397,035.33	34,544,500.80
June 2023	11,030,861.36	2,130,033.41	86,254,845.33	34,054,619.77
July 2023	10,853,341.90	2,005,094.77	85,121,365.21	33,568,889.73
August 2023	10,677,453.32	1,884,503.17	83,996,521.16	33,087,277.01
September 2023	10,503,178.74	1,768,177.73	82,880,239.95	32,609,748.17
October 2023	10,330,501.49	1,656,038.84	81,772,448.92	32,136,270.09
November 2023	10,159,405.01	1,548,008.11	80,673,075.99	31,666,809.86
December 2023	9,989,872.94	1,444,008.37	79,582,049.63	31,201,334.86
January 2024	9,821,889.04	1,343,963.65	78,499,298.88	30,739,812.74
February 2024	9,655,437.24	1,247,799.17	77,424,753.33	30,282,211.37
March 2024	9,490,501.64	1,155,441.30	76,358,343.12	29,828,498.92
April 2024	9,327,066.47	1,066,817.58	75,299,998.93	29,378,643.78
May 2024	9,165,116.12	981,856.66	74,249,652.00	28,932,614.60
June 2024	9,004,635.12	900,488.31	73,207,234.07	28,490,380.30
July 2024	8,845,608.16	822,643.42	72,172,677.47	28,051,910.02
August 2024	8,688,020.07	748,253.94	71,145,915.00	27,617,173.16
September 2024	8,531,855.82	677,252.89	70,126,880.02	27,186,139.36
October 2024	8,377,100.53	609,574.37	69,115,506.40	26,758,778.50
November 2024	8,224,713.58	545,153.49	68,111,728.53	26,335,060.71
December 2024	8,075,011.45	483,926.40	67,115,481.30	25,914,956.36
January 2025	7,927,947.80	425,830.23	66,126,700.13	25,498,436.02
February 2025	7,783,477.09	370,803.15	65,145,320.92	25,085,470.55
March 2025	7,641,554.55	318,784.28	64,171,280.08	24,676,030.99
April 2025	7,502,136.18	269,713.70	63,204,514.52	24,270,088.66
May 2025	7,365,178.71	224,609.47	62,244,961.65	23,867,615.07
June 2025	7,230,639.62	183,963.29	61,292,559.33	23,468,581.97
July 2025	7,098,477.12	147,666.74	60,352,759.79	23,072,961.33
August 2025	6,968,650.12	115,613.49	59,426,685.03	22,680,725.37
September 2025	6,841,118.24	87,699.28	58,514,140.27	22,291,846.50
October 2025	6,715,841.77	63,821.88	57,614,933.42	21,906,297.35
November 2025	6,592,781.70	43,881.05	56,728,875.10	21,524,050.80
December 2025	6,471,899.67	27,778.49	55,855,778.54	21,145,079.92
January 2026	6,353,157.98	15,417.84	54,995,459.59	20,769,357.99
February 2026	6,236,519.57	6,704.60	54,147,736.67	20,396,858.53
March 2026	6,121,948.02	1,546.14	53,312,430.74	20,027,555.24
April 2026	6,009,407.52	0.00	52,489,365.23	19,661,422.06
May 2026	5,898,862.87	0.00	51,678,366.08	19,300,113.54
June 2026	5,790,279.48	0.00	50,879,261.61	18,945,211.25
July 2026	5,683,623.35	0.00	50,091,882.58	18,596,604.17
August 2026	5,578,861.06	0.00	49,316,062.09	18,254,183.19
September 2026	5,475,959.75	0.00	48,551,635.58	17,917,841.05
October 2026	5,374,887.13	0.00	47,798,440.78	17,587,472.32
October 2020	J,J/=1,00/.1J	0.00	1/,//0,110./0	1/,50/,7/2.32

Distribution Date	Classes A and ZA (in the aggregate)	Classes KG, KH and MZ (in the aggregate)	Classes PA and PB (in the aggregate)	Classes PD and PE (in the aggregate)
November 2026	\$ 5,275,611.46	\$ 0.00	\$ 47,056,317.69	\$17,262,973.38
December 2026	5,178,101.54	0.00	46,325,108.56	16,944,242.37
January 2027	5,082,326.71	0.00	45,604,657.82	16,631,179.19
February 2027	4,988,256.83	0.00	44,894,812.10	16,323,685.41
March 2027	4,895,862.27	0.00	44,195,420.16	16,021,664.32
April 2027	4,805,113.91	0.00	43,506,332.87	15,725,020.85
May 2027	4,715,983.14	0.00	42,827,403.21	15,433,661.55
June 2027	4,628,441.82	0.00	42,158,486.18	15,147,494.57
July 2027	4,542,462.30	0.00	41,499,438.85	14,866,429.63
August 2027	4,458,017.39	0.00	40,850,120.26	14,590,378.00
September 2027	4,375,080.39	0.00	40,210,391.43	14,319,252.46
October 2027	4,293,625.05	0.00	39,580,115.33	14,052,967.29
November 2027	4,213,625.56	0.00	38,959,156.86	13,791,438.23
December 2027	4,135,056.56	0.00	38,347,382.78	13,534,582.46
January 2028	4,057,893.12	0.00	37,744,661.74	13,282,318.59
February 2028	3,982,110.73	0.00	37,150,864.24	13,034,566.62
March 2028	3,907,685.31	0.00	36,565,862.56	12,791,247.91
April 2028	3,834,593.20	0.00	35,989,530.81	12,552,285.17
May 2028	3,762,811.13	0.00	35,421,744.83	12,317,602.45
June 2028	3,692,316.23	0.00	34,862,382.23	12,087,125.08
July 2028	3,623,086.04	0.00	34,311,322.31	11,860,779.68
August 2028	3,555,098.46	0.00	33,768,446.08	11,638,494.13
September 2028	3,488,331.78	0.00	33,233,636.21	11,420,197.54
October 2028	3,422,764.67	0.00	32,706,777.03	11,205,820.25
November 2028	3,358,376.16	0.00	32,187,754.48	10,995,293.78
December 2028	3,295,145.64	0.00	31,676,456.10	10,788,550.82
January 2029	3,233,052.85	0.00	31,172,771.03	10,585,525.24
February 2029	3,172,077.89	0.00	30,676,589.93	10,386,152.03
March 2029	3,112,201.19	0.00	30,187,805.03	10,190,367.28
April 2029	3,053,403.52	0.00	29,706,310.05	9,998,108.21
May 2029	2,995,665.97	0.00	29,232,000.23	9,809,313.10
June 2029	2,938,969.98	0.00	28,764,772.25	9,623,921.30
July 2029	2,883,297.29	0.00	28,304,524.26	9,441,873.18
August 2029	2,828,629.96	0.00	27,851,155.85	9,263,110.16
September 2029	2,774,950.35	0.00	27,404,568.01	9,087,574.65
October 2029	2,722,241.14	0.00	26,964,663.12	8,915,210.07
November 2029	2,670,485.29	0.00	26,531,344.94	8,745,960.79
December 2029	2,619,666.06	0.00	26,104,518.59	8,579,772.16
January 2030	2,569,767.01	0.00	25,684,090.50	8,416,590.45
February 2030	2,520,771.97	0.00	25,269,968.45	8,256,362.86
March 2030	2,472,665.05	0.00	24,862,061.50	8,099,037.51
April 2030	2,425,430.64	0.00	24,460,279.98	7,944,563.41
May 2030	2,379,053.39	0.00	24,064,535.52	7,792,890.44
June 2030	2,333,518.22	0.00	23,674,740.96	7,643,969.34
July 2030	2,288,810.31	0.00	23,290,810.38	7,497,751.72
August 2030	2,244,915.10	0.00	22,912,659.08	7,354,190.00
September 2030	2,201,818.27	0.00	22,540,203.53	7,213,237.43

Distribution Date	Classes A and ZA (in the aggregate)	Classes KG, KH and MZ (in the aggregate)	Classes PA and PB (in the aggregate)	Classes PD and PE (in the aggregate)
October 2030	\$ 2,159,505.74	\$ 0.00	\$22,173,361.40	\$ 7,074,848.08
November 2030	2,117,963.70	0.00	21,812,051.52	6,938,976.79
December 2030	2,077,178.57	0.00	21,456,193.85	6,805,579.19
January 2031	2,037,136.99	0.00	21,105,709.50	6,674,611.67
February 2031	1,997,825.84	0.00	20,760,520.68	6,546,031.39
March 2031	1,959,232.23	0.00	20,420,550.69	6,419,796.23
April 2031	1,921,343.48	0.00	20,085,723.93	6,295,864.80
May 2031	1,884,147.15	0.00	19,755,965.86	6,174,196.44
June 2031	1,847,630.99	0.00	19,431,203.00	6,054,751.17
July 2031	1,811,782.99	0.00	19,111,362.90	5,937,489.72
August 2031	1,776,591.32	0.00	18,796,374.13	5,822,373.49
September 2031	1,742,044.38	0.00	18,486,166.28	5,709,364.55
October 2031	1,708,130.74	0.00	18,180,669.93	5,598,425.63
November 2031	1,674,839.20	0.00	17,879,816.65	5,489,520.09
December 2031	1,642,158.74	0.00	17,583,538.96	5,382,611.94
January 2032	1,610,078.53	0.00	17,291,770.36	5,277,665.81
February 2032	1,578,587.91	0.00	17,004,445.27	5,174,646.93
March 2032	1,547,676.44	0.00	16,721,499.04	5,073,521.16
April 2032	1,517,333.85	0.00	16,442,867.94	4,974,254.92
May 2032	1,487,550.02	0.00	16,168,489.16	4,876,815.22
June 2032	1,458,315.05	0.00	15,898,300.75	4,781,169.66
July 2032	1,429,619.18	0.00	15,632,241.66	4,687,286.39
August 2032	1,401,452.82	0.00	15,370,251.69	4,595,134.10
September 2032	1,373,806.57	0.00	15,112,271.50	4,504,682.05
October 2032	1,346,671.18	0.00	14,858,242.59	4,415,900.00
November 2032	1,320,037.54	0.00	14,608,107.29	4,328,758.26
December 2032	1,293,896.73	0.00	14,361,808.76	4,243,227.65
January 2033	1,268,239.98	0.00	14,119,290.95	4,159,279.50
February 2033	1,243,058.64	0.00	13,880,498.61	4,076,885.62
March 2033	1,218,344.26	0.00	13,645,377.28	3,996,018.34
April 2033	1,194,088.50	0.00	13,413,873.26	3,916,650.44
May 2033	1,170,283.18	0.00	13,185,933.63	3,838,755.19
June 2033	1,146,920.26	0.00	12,961,506.21	3,762,306.33
July 2033	1,123,991.84	0.00	12,740,539.58	3,687,278.04
August 2033	1,101,490.15	0.00	12,522,983.01	3,613,644.97
September 2033	1,079,407.57	0.00	12,308,786.55	3,541,382.18
October 2033	1,057,736.59	0.00	12,097,900.90	3,470,465.20
November 2033	1,036,469.86	0.00	11,890,277.51	3,400,869.97
December 2033	1,015,600.15	0.00	11,685,868.49	3,332,572.84
January 2034	995,120.33	0.00	11,484,626.65	3,265,550.59
February 2034	975,023.43	0.00	11,286,505.46	3,199,780.39
March 2034	955,302.58	0.00	11,091,459.06	3,135,239.82
April 2034	935,951.04	0.00	10,899,442.24	3,071,906.84
May 2034	916,962.19	0.00	10,710,410.44	3,009,759.80
June 2034	898,329.50	0.00	10,524,319.73	2,948,777.43
July 2034	880,046.59	0.00	10,341,126.79	2,888,938.84
August 2034	862,107.16	0.00	10,160,788.96	2,830,223.48

Distribution Date	usses A and ZA the aggregate)	Classes KG, KH and MZ (in the aggregate)	Classes PA and PB (in the aggregate)	Classes PD and PE (in the aggregate)
September 2034	\$ 844,505.05	\$ 0.00	\$ 9,983,264.14	\$ 2,772,611.17
October 2034	827,234.18	0.00	9,808,510.87	2,716,082.10
November 2034	810,288.60	0.00	9,636,488.27	2,660,616.79
December 2034	793,662.44	0.00	9,467,156.02	2,606,196.09
January 2035	777,349.96	0.00	9,300,474.41	2,552,801.21
February 2035	761,345.49	0.00	9,136,404.28	2,500,413.68
March 2035	745,643.49	0.00	8,974,907.04	2,449,015.34
April 2035	730,238.51	0.00	8,815,944.63	2,398,588.36
May 2035	715,125.17	0.00	8,659,479.55	2,349,115.22
June 2035	700,298.21	0.00	8,505,474.85	2,300,578.71
July 2035	685,752.45	0.00	8,353,894.08	2,252,961.92
August 2035	671,482.82	0.00	8,204,701.33	2,206,248.24
September 2035	657,484.31	0.00	8,057,861.20	2,160,421.34
October 2035	643,752.01	0.00	7,913,338.79	2,115,465.18
November 2035	630,281.11	0.00	7,771,099.72	2,071,364.01
December 2035	617,066.87	0.00	7,631,110.08	2,028,102.36
January 2036	604,104.64	0.00	7,493,336.45	1,985,665.01
February 2036	591,389.84	0.00	7,357,745.90	1,944,037.02
March 2036	578,917.99	0.00	7,224,305.97	1,903,203.72
April 2036	566,684.66	0.00	7,092,984.66	1,863,150.70
May 2036	554,685.54	0.00	6,963,750.44	1,823,863.77
June 2036	542,916.35	0.00	6,836,572.20	1,785,329.04
July 2036	531,372.92	0.00	6,711,419.33	1,747,532.83
August 2036	520,051.13	0.00	6,588,261.61	1,710,461.70
September 2036	508,946.95	0.00	6,467,069.28	1,674,102.47
October 2036	498,056.42	0.00	6,347,813.01	1,638,442.17
November 2036	487,375.63	0.00	6,230,463.88	1,603,468.07
December 2036	476,900.77	0.00	6,114,993.39	1,569,167.67
January 2037	466,628.07	0.00	6,001,373.46	1,535,528.67
February 2037	456,553.83	0.00	5,889,576.39	1,502,539.00
March 2037	446,674.44	0.00	5,779,574.90	1,470,186.82
April 2037	436,986.32	0.00	5,671,342.10	1,438,460.46
May 2037	430,980.32	0.00	5,564,851.48	1,407,348.49
June 2037	418,169.97	0.00	5,460,076.92	1,376,839.66
	409,034.92	0.00	5,356,992.67	1,346,922.94
July 2037	409,034.92	0.00	5,255,573.35	1,317,587.48
August 2037	391,294.50	0.00	5,155,793.96	1,288,822.62
October 2037		0.00		1,260,617.91
_	382,682.65		5,057,629.85	
November 2037	374,238.84	0.00	4,961,056.72	1,232,963.05
December 2037	365,959.98	0.00	4,866,050.64	1,205,847.96
January 2038	357,843.02	0.00	4,772,588.00	1,179,262.71
February 2038	349,885.00	0.00	4,680,645.55	1,153,197.56
March 2038	342,082.98	0.00	4,590,200.38	1,127,642.94
April 2038	334,434.08	0.00	4,501,229.89	1,102,589.44
May 2038	326,935.48	0.00	4,413,711.83	1,078,027.85
June 2038	319,584.42	0.00	4,327,624.25	1,053,949.07
July 2038	312,378.16	0.00	4,242,945.54	1,030,344.22

August 2038       \$ 305,314.02       0.00       \$ 4,159,654.39       \$ 1,007,204         September 2038       298,389.38       0.00       4,077,729.80       984,521         October 2038       291,601.66       0.00       3,997,151.08       962,286         November 2038       284,948.31       0.00       3,917,897.83       940,491	
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Distribution Date	Classes A and ZA (in the aggregate)	Classes KG, KH and MZ (in the aggregate)	Classes PA and PB (in the aggregate)	Classes PD and PE (in the aggregate)
July 2042	\$ 93,722.74	\$ 0.00	\$ 1,480,319.80	\$ 313,909.14
August 2042	91,102.48	0.00	1,443,737.32	305,321.58
September 2042	88,538.13	0.00	1,407,803.44	296,917.26
October 2042	86,028.61	0.00	1,372,507.96	288,692.66
November 2042	83,572.87	0.00	1,337,840.84	280,644.30
December 2042	81,169.86	0.00	1,303,792.18	272,768.77
January 2043	78,818.56	0.00	1,270,352.23	265,062.76
February 2043	76,517.97	0.00	1,237,511.39	257,522.96
March 2043	74,267.11	0.00	1,205,260.21	250,146.17
April 2043	72,065.00	0.00	1,173,589.35	242,929.22
May 2043	69,910.70	0.00	1,142,489.64	235,869.01
June 2043	67,803.28	0.00	1,111,952.03	228,962.50
July 2043	65,741.83	0.00	1,081,967.62	222,206.69
August 2043	63,725.45	0.00	1,052,527.61	215,598.66
September 2043	61,753.26	0.00	1,023,623.36	209,135.51
October 2043	59,824.39	0.00	995,246.36	202,814.43
November 2043	57,937.99	0.00	967,388.22	196,632.63
December 2043	56,093.24	0.00	940,040.65	190,587.40
January 2044	54,289.31	0.00	913,195.53	184,676.05
February 2044	52,525.41	0.00	886,844.82	178,895.96
March 2044	50,800.75	0.00	860,980.63	173,244.56
April 2044	49,114.54	0.00	835,595.17	167,719.31
May 2044	47,466.04	0.00	810,680.78	162,317.73
June 2044	45,854.50	0.00	786,229.89	157,037.38
July 2044	44,279.19	0.00	762,235.07	151,875.88
August 2044	42,739.38	0.00	738,688.99	146,830.86
September 2044	41,234.38	0.00	715,584.43	141,900.04
October 2044	39,763.50	0.00	692,914.28	137,081.14
November 2044	38,326.05	0.00	670,671.53	132,371.95
December 2044	36,921.37	0.00	648,849.29	127,770.29
January 2045	35,548.81	0.00	627,440.76	123,274.02
February 2045	34,207.73	0.00	606,439.24	118,881.04
March 2045	32,897.49	0.00	585,838.15	114,589.29
April 2045	31,617.48	0.00	565,630.99	110,396.75
May 2045	30,367.10	0.00	545,811.36	106,301.44
June 2045	29,145.74	0.00	526,372.96	102,301.41
July 2045	27,952.83	0.00	507,309.60	98,394.74
August 2045	26,787.79	0.00	488,615.15	94,579.58
September 2045	25,650.06	0.00	470,283.60	90,854.06
October 2045	24,539.09	0.00	452,309.02	87,216.40
November 2045	23,454.33	0.00	434,685.58	83,664.81
December 2045	22,395.26	0.00	417,407.51	80,197.56
January 2046	21,361.36	0.00	400,469.17	76,812.95
February 2046	20,352.11	0.00	383,864.96	73,509.29
March 2046	19,367.02	0.00	367,589.41	70,284.95
April 2046	18,405.58	0.00	351,637.10	67,138.32
May 2046	17,467.32	0.00	336,002.69	64,067.81

Distribution Date	Classes A and ZA (in the aggregate)				sses PA and PB the aggregate)	Classes PD and PE (in the aggregate)		
June 2046	\$	16,551.76	\$	0.00	\$ 320,680.95	\$	61,071.86	
July 2046		15,658.44		0.00	305,666.71		58,148.97	
August 2046		14,786.90		0.00	290,954.88		55,297.63	
September 2046		13,936.69		0.00	276,540.44		52,516.38	
October 2046		13,107.37		0.00	262,418.47		49,803.79	
November 2046		12,298.52		0.00	248,584.10		47,158.43	
December 2046		11,509.71		0.00	235,032.55		44,578.93	
January 2047		10,740.53		0.00	221,759.11		42,063.92	
February 2047		9,990.56		0.00	208,759.12		39,612.08	
March 2047		9,259.42		0.00	196,028.03		37,222.10	
April 2047		8,546.70		0.00	183,561.34		34,892.70	
May 2047		7,852.03		0.00	171,354.61		32,622.61	
June 2047		7,175.02		0.00	159,403.48		30,410.60	
July 2047		6,515.32		0.00	147,703.65		28,255.47	
August 2047		5,872.55		0.00	136,250.89		26,156.03	
September 2047		5,246.35		0.00	125,041.04		24,111.10	
October 2047		4,636.39		0.00	114,069.99		22,119.56	
November 2047		4,042.31		0.00	103,333.71		20,180.27	
December 2047		3,463.79		0.00	92,828.22		18,292.14	
January 2048		2,900.49		0.00	82,549.60		16,454.09	
February 2048		2,352.08		0.00	72,494.00		14,665.05	
March 2048		1,818.26		0.00	62,657.62		12,924.01	
April 2048		1,298.71		0.00	53,036.72		11,229.93	
May 2048		793.13		0.00	43,627.64		9,581.82	
June 2048		301.22		0.00	34,426.73		7,978.69	
July 2048		0.00		0.00	25,430.44		6,419.60	
August 2048		0.00		0.00	16,635.25		4,903.59	
September 2048		0.00		0.00	8,037.71		3,429.75	
October 2048		0.00		0.00	0.00		1,997.17	
November 2048		0.00		0.00	0.00		604.96	
December 2048 and thereafter		0.00		0.00	0.00		0.00	

# Underlying Certificates

	Ginnie Mae I or II	=	П	П	П	П	П	П	П	П	П	П	П	п
Weighted Average Loan Age of	Mortgage ( Loans (in months)(3)													2(10)
Remaining Term to Maturity of	Mortgage Loans (in months)(3)	346	(2)	9	352	352	352	354	6	(8)	355	356	6	357(10)
Approximate Weighted Average	Coupon of Mortgage Loans(3)													
	Percentage of Class in Trust	9.9498437823%	100.0000000000	100.0000000000	11.8753449494	22.0715347906	35.7142792857	100.0000000000	100.0000000000	11.8227573596	100.0000000000	100.0000000000	100.0000000000	100:00000000000
	Notional Balance in Trust													
	Inderlying Certificate Factor(2)	0.92513021	0.97417100	0.97322745	0.97271984	0.97818830	0.97394763	0.98342809	0.98582521	0.98837822	0.98923961	0.99545823	0.99647495	1.00000000
Original	Notional 1 Balance of Class	\$5,583,555	2,222,222	1,333,333	4,678,222	5,851,111	7,777,777	1,111,111	1,111,111	6,766,611	5,733,444	555,555	2,481,459	1,500,000
	Principal Type(1)	NTL(SEQ)	NTL(SEQ)	NTL(SEQ)	NTL(PAC)	NTL(PAC)	NTL(SEQ)	NTL(SEQ/AD)	NTI(SEQ)	NTL(SEQ)	NTL(SEQ/AD)	NTI(SEQ)	NTL(SEQ)	NTL(SEQ)
	Final Distribution Date	November 2044	October 2044	June 2044	August 2044	March 2047	September 2046	December 2046	January 2045	November 2044	August 2043	January 2048	November 2048	July 2045
	Interest Type(1)	HX/IO	FIX/IO	FIX/IO	FIX/IO	FIX/10	FIX/IO	FIX/10	FIX/10	HX/10	FIX/IO	FIX/IO	FIX/10	FIX/IO
	Interest Rate	4.5%	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	CUSIP Number	38380VKR1	38380XKH9	38380XH34	38380XM38	38380XN52	38380XP27	38380YQV0	38380YRB3	38380Y7W9	38381ASW7	38381ANJ1	38381A3C8	38381BXL3
	Issue Date	February 28, 2018	June 29, 2018	July 30, 2018	July 30, 2018	July 30, 2018	July 30, 2018	August 30, 2018	August 30, 2018	September 28, 2018	October 30, 2018	October 30, 2018	November 30, 2018	January 30, 2019
	Class	HI(4)	MI(5)	(9)IQ	GI(4)	HI(4)	ID(4)	IK	KI(7)	HI(4)(8)	BI(4)	X	KI(9)	K
	Series	2018-027	2018-089	2018-097	2018-097	2018-097	2018-097	2018-105	2018-105	2018-125	2018-134	2018-139	2018-155	2019-001
	Issuer	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae
	Trust Asset Group	ı												

As defined under "Class Types" in Appendix I to the Base Offering Circular.

Underlying Certificate Factors are as of January 2019. 8

Based on information as of January 2019. (3)

MX Class.

Ginnie Mae 2018-089 Class MI is a REMIC Class that is related to separate Trust Asset Subgroups, which are backed by certain mortgage loans whose approximate weighted average characteristics are as follows: *3. 6* 

Approximate

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	∞	∞
Weighted Average Remaining Term to Manurity of Mortgage Loans (in months)(3)	350	351
Approximate Weighted Average Coupon of Mortgage Loans(3)	4.956%	4.921
Trust Asset Subgroup	11A	113
Series	2018-089	2018-089

(6) Ginnie Mae 2018-097 Class DI is a REMIC Class that is related to separate Trust Asset Subgroups, which are backed by certain mortgage loans whose approximate weighted average characteristics are as follows:

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	7	_	_
Average Remaining Term to Maturity of Mortgage Loans (in months)(3)	352	353	351
Approximate Weighted Average Coupon of Mortgage Loans(3)	4.920%	4.911	4.951
Trust Asset Subgroup	2A	2B	2C
Series	2018-097	2018-097	2018-097

Ginnie Mae 2018-105 Class KI is a REMIC Class that is related to separate Trust Asset Subgroups, which are backed by certain mortgage loans whose approximate weighted average characteristics are as follows: 0

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	2	9
Approximate Weighted Average Remaining Term to Maurity of Mortgage Loans (in months)(3)	353	353
Approximate Weighted Average Coupon of Mortgage Loans(3)	4.960%	4.943
Trust Asset Subgroup	2C	2D
Series	2018-105	2018-105

Ginnie Mae 2018-125 Class HI is an MX Class that is related to separate Trust Asset Subgroups, which are backed by certain mortgage loans whose approximate weighted average characteristics are as follows: 8

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	ıν	v	4	√	4
Weighted Average Remaining Term to Maturity of Mortgage Loans (in months)(3)	352	353	354	354	355
Approximate Weighted Average Coupon of Mortgage Loans(3)	4.959%	4.928	4.927	4.998	4.944
Trust Asset Subgroup	9B	9C	9D	9E	96
Series	2018-125	2018-125	2018-125	2018-125	2018-125

Ginnie Mae 2018-155 Class KI is a REMIC Class that is related to separate Trust Asset Subgroups, which are backed by certain mortgage loans whose approximate weighted average characteristics are as follows: 6

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	nn
Weighted Average Remaining Term to Maturity of Mortgage Loans (in months)(3)	356 357
Approximate Weighted Average Coupon of Mortgage Loans(3)	4.961% 4.894
Trust Asset Subgroup	4A 4E
Series	2018-155 2018-155

istics of the Mortgage Loans Underlying the Group 1, 2, 4, 5, 6, 7 and 8 Trust Assets" in this Supplement. The actual remaining terms to (10) Based on the assumed characteristics set forth for the Subgroup 8F, 8G and 8H Trust Assets under "Term Sheet — Assumed Charactermaturity, Ioan ages and Mortgage Rates of many of the Mortgage Loans underlying the Ginnie Mae 2019-001 Class KI Underlying Certificate will differ from the weighted averages shown, perhaps significantly.



\$1,285,522,992

**Government National Mortgage Association** 

# **GINNIE MAE**®

Guaranteed REMIC
Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2019-001

OFFERING CIRCULAR SUPPLEMENT
January 23, 2019

Citigroup Roberts & Ryan Investments