

# \$1,129,754,499 Government National Mortgage Association GINNIE MAE®

# Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2018-154

#### 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-13 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 November 30, 2018.

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								
FK	\$12,500,000	(5)	PT	FLT	38381ATX4	November 2048		
KA	50,000,000	4.00%	PT	FIX	38381ATY2	November 2048		
SK	12,500,000	(5)	NTL(PT)	INV/IO	38381ATZ9	November 2048		
Security Group 2								
FP	41,932,139	(5)	PT	FLT	38381AUA2	November 2048		
NA(1)	65,747,000	3.50	SEQ	FIX	38381AUB0	August 2045		
NV(1)	3,312,279 10,000,000	3.50 3.50	SEQ/AD SEQ	FIX FIX/Z	38381AUC8 38381AUD6	December 2035 November 2048		
SP	41,932,139	(5)	NTL(PT)	INV/IO	38381AUE4	November 2048		
VN(1)	4,805,000	3.50	SEQ/AD	FIX	38381AUF1	February 2030		
Security Group 3	1,000,000							
AI(1)	5,485,460	5.50	NTL(SEQ)	FIX/IO	38381AUG9	November 2048		
IA(1)	8,228,191	5.50	NTL(SEQ)	FIX/IO	38381AUH7	September 2042		
IK	2,550,641	5.50	NTL(PAC/AD)	FIX/IO	38381AUJ3	November 2048		
SW	40,000,000	(5)	NTL(PT)	INV/IO	38381AUK0	November 2048		
UZ	10,000,000	4.00	SUP	FIX/Z	38381AUL8	November 2048		
WA(1)	42,885,000	4.00	PAC/AD	FIX	38381AUM6	July 2048		
WE(1)	17,725,542	3.50	PT PT	FIX FLT	38381AUN4	November 2048		
WF(1)	40,000,000 7,014,264	(5) 3.50	PAC/AD	FLI	38381AUP9 38381AUQ7	November 2048 November 2048		
ZU	431,000	4.00	PAC/AD	FIX/Z	38381AUR5	November 2048		
ZW(1)	1,700,000	5.50	SUP	FIX/Z	38381AUS3	November 2048		
Security Group 4	-,,,,,,,,							
XZ(1)	6,800,000	3.00	SC/PT	FIX/Z	38381AUT1	January 2048		
Security Group 5	0,000,000	2.00	5671	11112	5050111011	Juliani 2010		
BA	143,000	4.00	SUP/AD	FIX	38381AUU8	November 2048		
BD	1.030.000	4.00	PAC II	FIX	38381AUV6	November 2048		
BE	3,894,000	3.50	SUP/AD	FIX	38381AUW4	November 2048		
BF	3,186,000	(5)	SUP/AD	FLT/DLY	38381AUX2	November 2048		
BH(1)	35,192,871	4.00	PAC I	FIX	38381AUY0	November 2048		
BK	195,464	4.00	PAC I	FIX	38381AUZ7	November 2048		
BL	750,000 750,000	3.50 4.50	PAC II PAC II	FIX FIX	38381AVA1 38381AVB9	November 2048 November 2048		
BM	708,000	(5)	SUP/AD	INV/DLY	38381AVC7	November 2048		
BZ	3,460	4.00	SUP	FIX/Z	38381AVD5	November 2048		
Security Group 6	2,100							
KC	35,000,000	3.75	SEO	FIX	38381AVE3	May 2045		
KI	2,187,500	4.00	NTL(SEQ)	FIX/IO	38381AVF0	May 2045		
KZ(1)	6,338,000	4.00	SEQ	FIX/Z	38381AVG8	November 2048		
VK(1)	3,547,000	4.00	SEQ/AD	FIX	38381AVH6	January 2030		
Security Group 7								
HB(1)	15,368,602	3.50	PT	FIX	38381AVJ2	November 2048		
HF(1)	30,737,202	(5)	PT	FLT	38381AVK9	November 2048		
HS	30,737,202	(5)	NTL(PT)	INV/IO	38381AVL7	November 2048		
Security Group 8								
TA	2,218,000	4.00	SUP/AD	FIX	38381AVM5	November 2048		
TD	746,000	4.00	PAC II	FIX	38381AVN3	November 2048		
TP	15,000,000	4.00	PAC I SUP	FIX FIX/Z	38381AVP8	November 2048		
TZ	2,000	4.00	SUP	FIX/Z	38381AVQ6	November 2048		
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(Cover continued on next page)

- (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) See "Yield, Maturity and Prepayment Considerations Final Distribution Date" in this Supplement.
- (5) See "Terms Sheet Interest Rates" in this Supplement.

# Wells Fargo Securities

# **Tribal Capital Markets**

The date of this Offering Circular Supplement is November 21, 2018.

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
	Dulunce(2)	Rute	Type(5)	Type(5)	rumber	Dutc(4)
Security Group 9	\$65,000,000	3.75%	PAC I	FIX	38381AVR4	September 2047
MB	50,000,000	3.50	PACI	FIX	38381AVS2	September 2047
MF	2,006,250	(5)	SUP/AD	FLT/DLY	38381AVT0	November 2048
MI	10,312,500	4.00	NTL(PAC I)	FIX/IO	38381AVU7	September 2047
MK	5,674,000	4.00	PAC II	FIX	38381AVV5	November 2048
MS	668,750	(5)	SUP/AD	INV/DLY	38381AVW3	November 2048
MT	2,675,000	3.50	SUP/AD	FIX	38381AVX1	November 2048
MU	22,270,000	4.00	SUP/AD	FIX	38381AVY9	November 2048
MV(1)	2,048,000	4.00	PAC I/AD	FIX	38381AVZ6	November 2035
MW	4,647,000	4.00	PAC II	FIX	38381AWA0	November 2048
MZ	6,000	4.00	SUP	FIX/Z	38381AWB8	November 2048
QZ	3,000	4.00	SUP	FIX/Z	38381AWC6	November 2048
VM(1)	4,601,000	4.00	PAC I/AD	FIX	38381AWD4	October 2031
ZM(1)	6,852,000	4.00	PAC I	FIX/Z	38381AWE2	November 2048
Security Group 10						
DA(1)	52,171,000	4.00	SEQ	FIX	38381AWF9	January 2045
DV(1)	5,792,000	4.00	SEQ/AD	FIX	38381AWG7	January 2030
DZ(1)	10,344,575	4.00	SEQ	FIX/Z	38381AWH5	November 2048
Security Group 11						
QE(1)	10,495,000	3.00	SC/PAC	FIX	38381AWJ1	May 2048
QL	4,203,000	3.00	SC/PAC	FIX	38381AWK8	May 2048
QM(1)	1,285,174	3.00	SC/SUP	FIX	38381AWL6	May 2048
Security Group 12						
QG(1)	9,505,000	3.00	SC/PAC	FIX	38381AWM4	November 2047
QN(1)	403,599	3.00	SC/SUP	FIX	38381AWN2	November 2047
QY	657,000	3.00	SC/PAC	FIX	38381AWP7	November 2047
Security Group 13						
C(1)	5,989,909	3.50	SUP	FIX	38381AWQ5	November 2048
CF	38,751,442	(5)	PT	FLT	38381AWR3	November 2048
CM(1)	3,940,616	3.50	PAC	FIX	38381AWS1	April 2048
CN(1)	1,708,760	3.50	PAC	FIX	38381AWT9	November 2048
CP(1)	27,112,157	3.50	PAC	FIX	38381AWU6	November 2046
CS	38,751,442	(5)	NTL(PT)	INV/IO	38381AWV4	November 2048
Security Group 14						
IT	5,779,788	5.50	NTL(SC/SEQ)	FIX/IO	38381AWW2	October 2048
JU	25,000	3.50	SC/PT	FIX	38381AWX0	October 2048
TI	8,669,682	5.50	NTL(SC/SEQ)	FIX/IO	38381AWY8	October 2048
Security Group 15						
FQ(1)	26,819,120	(5)	PT	FLT	38381AWZ5	November 2048
QČ(1)	53,638,240	3.50	PT	FIX	38381AXA9	November 2048
SQ(1)	26,819,120	(5)	NTL(PT)	INV/IO	38381AXB7	November 2048
Security Group 16			. ,			
GA	56,684,000	4.00	SEQ	FIX	38381AXC5	May 2045
GV(1)	5,682,000	4.00	SEQ/AD	FIX	38381AXD3	January 2030
GZ(1)	10,154,000	4.00	SEQ	FIX/Z	38381AXE1	November 2048
Security Group 17	,,					2010
JA(1)	69,166,000	4.00	PAC/AD	FIX	38381AXF8	September 2047
Z	2,306,000	4.00	PAC/AD PAC/AD	FIX/Z	38381AXG6	November 2048
ZJ	18,528,000	4.00	SUP	FIX/Z	38381AXH4	November 2048
	10,020,000		331		303017171117	2.0.0.11001 2040
Security Group 18	2 726 005	2.50	SUP	FIX	20201 A VIO	November 2040
E(1)	3,726,985 20,016,261	3.50 3.50	PAC	FIX	38381AXJ0 38381AXK7	November 2048 September 2047
EL	2,350,116	3.50	PAC	FIX	38381AXL5	November 2048
FE	52,186,722	(5)	PAC	FLT	38381AXM3	November 2048
SE	52,186,722	(5)	NTL(PT)	INV/IO	38381AXN1	November 2048
-	32,100,722	(3)	11111(11)	11,7/10	30301717111	11010111001 2040
Residual		0.00	NIDD	NIDD	20201 43706	N1 2010
RR	0	0.00	NPR	NPR	38381AXP6	November 2048

#### **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 4, 11, 12 and 14 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:** Wells Fargo Bank, N.A.

**Co-Sponsor:** Tribal Capital Markets, LLC **Trustee:** U.S. Bank National Association

**Tax Administrator:** The Trustee **Closing Date:** November 30, 2018

**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 December 2018.

#### **Trust Assets:**

Trust Asset Group or Subgroup <sup>(2)</sup>	Trust Asset Type	Certificate Rate	Original Term To Maturity (in years)
1	Ginnie Mae II	4.5%	30
2	Ginnie Mae II	4.5%	30
3	Ginnie Mae II	5.5%	30
4	<b>Underlying Certificate</b>	(1)	(1)
5	Ginnie Mae II	4.0%	30
6	Ginnie Mae II	4.0%	30
7	Ginnie Mae II	5.5%	30
8	Ginnie Mae II	4.0%	30
9	Ginnie Mae II	4.0%	30
10	Ginnie Mae II	4.0%	30
11	<b>Underlying Certificates</b>	(1)	(1)
12	<b>Underlying Certificates</b>	(1)	(1)
13	Ginnie Mae II	5.0%	30
14A	<b>Underlying Certificate</b>	(1)	(1)
14B	Underlying Certificate	(1)	(1)
15	Ginnie Mae II	4.5%	30
16	Ginnie Mae II	4.0%	30
17	Ginnie Mae II	4.0%	30
18	Ginnie Mae II	5.5%	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. Except in the case

<sup>&</sup>lt;sup>(2)</sup> The Group 14 Trust Assets consist of subgroups, Subgroup 14A and Subgroup 14B (each, a "Subgroup").

of certain MX Classes in Groups 3, 4, 7, 11 and 12, payments on each 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, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18 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>
<b>Group 1 Trust Assets</b>			
\$62,500,000(3)	359	1	4.980%
<b>Group 2 Trust Assets</b>			
\$125,796,418	357	2	4.916%
Group 3 Trust Assets	2//	4 /	<b>5</b> .0 <b>5</b> .00/
\$119,755,806	344	14	5.970%
<b>Group 5 Trust Assets</b> \$45,852,795 <sup>(3)</sup>	25/	5	4.463%
	354	)	4.405%
<b>Group 6 Trust Assets</b> \$44,885,000 <sup>(3)</sup>	359	0	4.467%
Group 7 Trust Assets	337	V	1. 10//0
\$46,105,804	344	15	5.941%
<b>Group 8 Trust Assets</b>			
\$17,966,000(3)	358	1	4.480%
<b>Group 9 Trust Assets</b>			
\$166,451,000 <sup>(3)</sup>	355	4	4.470%
<b>Group 10 Trust Assets</b>			
\$68,307,575	349	9	4.472%
Group 13 Trust Assets	257	2	(10)
\$77,502,884	357	3	5.561%
<b>Group 15 Trust Assets</b> \$80,457,360	356	3	4.920%
	330	3	4.920%
<b>Group 16 Trust Assets</b> \$72,520,000	345	13	4.393%
Group 17 Trust Assets	319	1,5	1.37370
\$90,000,000 <sup>(3)</sup>	358	1	4.486%
Group 18 Trust Assets			
\$78,280,084	358	2	5.933%

<sup>(1)</sup> As of November 1, 2018.

<sup>&</sup>lt;sup>(2)</sup> The Mortgage Loans underlying the Group 1, 2, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18 Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.

<sup>(3)</sup> More than 10% of the Mortgage Loans underlying the Group 1, 5, 6, 8, 9 and 17 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, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18 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 4, 11, 12 and 14 Trust Assets:** See Exhibit A to this Supplement for certain information regarding the characteristics of the Mortgage Loans included in the related 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
BF	LIBOR + 1.00%	3.2810%	1.00%	5.50%	19	0.00%
BS	$20.25\% - (LIBOR \times 4.50)$	9.9855%	0.00%	20.25%	19	4.50%
CF	LIBOR + 0.30%	2.5940%	0.30%	6.50%	0	0.00%
CS	6.20% – LIBOR	3.9060%	0.00%	6.20%	0	6.20%
FE	LIBOR + 0.30%	2.6180%	0.30%	6.50%	0	0.00%
FK	LIBOR + 0.30%	2.6000%	0.30%	6.50%	0	0.00%
FP	LIBOR + 0.35%	2.6320%	0.35%	6.50%	0	0.00%
FQ	LIBOR + 0.35%	2.6500%	0.35%	6.50%	0	0.00%
FW	LIBOR + 0.30%	2.6000%	0.30%	6.50%	0	0.00%
HF	LIBOR + 0.30%	2.6000%	0.30%	6.50%	0	0.00%
HS	6.20% – LIBOR	3.9000%	0.00%	6.20%	0	6.20%
MF	LIBOR + 0.80%	3.1000%	0.80%	6.00%	19	0.00%
MS	$15.60\% - (LIBOR \times 3.00)$	8.7000%	0.00%	15.60%	19	5.20%
SE	6.20% – LIBOR	3.8820%	0.00%	6.20%	0	6.20%
SK	6.20% – LIBOR	3.9000%	0.00%	6.20%	0	6.20%
SP	6.15% – LIBOR	3.8680%	0.00%	6.15%	0	6.15%
SQ	6.15% – LIBOR	3.8500%	0.00%	6.15%	0	6.15%
SW	6.20% — LIBOR	3.9000%	0.00%	6.20%	0	6.20%
WF	LIBOR + 0.30%	2.6000%	0.30%	6.50%	0	0.00%

- (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.

Class WZ is a Weighted Average Coupon Class that will accrue interest during each Accrual Period at an equivalent annualized rate derived by aggregating the accrued interest on its related REMIC Classes for such Accrual Period expressed as a percentage of its outstanding principal balance for such Accrual Period. The approximate initial Interest Rate for Class WZ, which will be in effect for the first Accrual Period, is 3.50000%.

**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 Group 1 Principal Distribution Amount will be allocated, concurrently, to FK and KA, pro rata, until retired

#### **SECURITY GROUP 2**

The Group 2 Principal Distribution Amount and the NZ Accrual Amount will be allocated as follows:

- The NZ Accrual Amount, sequentially, to VN, NV and NZ, in that order, until retired
- The Group 2 Principal Distribution Amount, concurrently, as follows:
  - 1. 33.3333330684% to FP, until retired
  - 2. 66.666669316%, sequentially, to NA, VN, NV and NZ, in that order, until retired

#### **SECURITY GROUP 3**

The Group 3 Principal Distribution Amount, the UZ Accrual Amount, the ZU Accrual Amount and the ZW Accrual Amount will be allocated as follows:

- The ZW Accrual Amount in the following order of priority:
  - 1. To WP, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To ZW, until retired
- The ZU Accrual Amount, sequentially, to WA and ZU, in that order, until retired
- The UZ Accrual Amount in the following order of priority:
  - 1. Sequentially, to WA and ZU, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
    - 2. To UZ, until retired

- The Group 3 Principal Distribution Amount, concurrently, as follows:
  - 1. 48.2027084348%, concurrently, to WE and WF, pro rata, until retired
  - 2. 7.2766943759% in the following order of priority:
    - a. To WP, until reduced to its Scheduled Principal Balance for that Distribution Date
    - b. To ZW, until retired
    - c. To WP, without regard to its Scheduled Principal Balance, until retired
  - 3. 44.5205971893% in the following order of priority:
  - a. Sequentially, to WA and ZU, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
    - b. To UZ, until retired
  - c. Sequentially, to WA and ZU, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 4**

The Group 4 Principal Distribution Amount will be allocated to XZ, until retired

#### **SECURITY GROUP 5**

The Group 5 Principal Distribution Amount and the BZ Accrual Amount will be allocated as follows:

- The BZ Accrual Amount in the following order of priority:
  - 1. Concurrently, to BA, BE, BF and BS, pro rata, until retired
  - 2. To BZ, until retired
- The Group 5 Principal Distribution Amount in the following order of priority:
  - 1. Sequentially, to BH and BK, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. Concurrently, to BD, BL and BM, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
    - 3. Concurrently, to BA, BE, BF and BS, pro rata, until retired
    - 4. To BZ, until retired
  - 5. Concurrently, to BD, BL and BM, pro rata, without regard to their Aggregate Scheduled Principal Balance for that Distribution Date, until retired
  - 6. Sequentially, to BH and BK, in that order, without regard to their Aggregate Scheduled Principal Balance for that Distribution Date, until retired

## **SECURITY GROUP 6**

The Group 6 Principal Distribution Amount and the KZ Accrual Amount will be allocated as follows:

• The KZ Accrual Amount, sequentially, to VK and KZ, in that order, until retired

• The Group 6 Principal Distribution Amount, sequentially, to KC, VK and KZ, in that order, until retired

#### **SECURITY GROUP 7**

The Group 7 Principal Distribution Amount will be allocated, concurrently, to HB and HF, pro rata, until retired

#### **SECURITY GROUP 8**

The Group 8 Principal Distribution Amount and the TZ Accrual Amount will be allocated as follows:

- The TZ Accrual Amount, sequentially, to TA and TZ, in that order, until retired
- The Group 8 Principal Distribution Amount in the following order of priority:
  - 1. To TP, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To TD, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 3. Sequentially, to TA and TZ, in that order, until retired
  - 4. To TD, without regard to its Scheduled Principal Balance, until retired
  - 5. To TP, without regard to its Scheduled Principal Balance, until retired

#### **SECURITY GROUP 9**

The Group 9 Principal Distribution Amount, the MZ Accrual Amount, the QZ Accrual Amount and the ZM Accrual Amount will be allocated as follows:

- The MZ Accrual Amount, sequentially, to MU and MZ, in that order, until retired
- The QZ Accrual Amount in the following order of priority:
  - 1. Concurrently, to MF, MS and MT, pro rata, until retired
  - 2. To QZ, until retired
- The ZM Accrual Amount, sequentially, to VM, MV and ZM, in that order, until retired
- The Group 9 Principal Distribution Amount in the following order of priority:
  - 1. To MB, MC, MV, VM and ZM, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date in the following order of priority:
    - a. Concurrently, to MB and MC, pro rata, until retired
    - b. Sequentially, to VM, MV and ZM, in that order, until retired
    - 2. Concurrently, as follows:
      - a. 26.3504611331% in the following order of priority:
        - i. To MW, until reduced to its Scheduled Principal Balance for that Distribution Date
        - ii. Concurrently, to MF, MS and MT, pro rata, until retired
        - iii. To QZ, until retired
        - iv. To MW, without regard to its Scheduled Principal Balance, until retired

- b. 73.6495388669% in the following order of priority:
  - i. To MK, until reduced to its Scheduled Principal Balance for that Distribution Date
  - ii. Sequentially, to MU and MZ, in that order, until retired
  - iii. To MK, without regard to its Scheduled Principal Balance, until retired
- 3. To MB, MC, MV, VM and ZM, in the same manner and priority as step 1., but without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 10**

The Group 10 Principal Distribution Amount and the DZ Accrual Amount will be allocated as follows:

- The DZ Accrual Amount, sequentially, to DV and DZ, in that order, until retired
- The Group 10 Principal Distribution Amount, sequentially, to DA, DV and DZ, in that order, until retired

# **SECURITY GROUP 11**

The Group 11 Principal Distribution Amount will be allocated in the following order of priority:

- 1. Sequentially, to QE and QL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To QM, until retired
- 3. Sequentially, to QE and QL, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

### **SECURITY GROUP 12**

The Group 12 Principal Distribution Amount will be allocated in the following order of priority:

- 1. Sequentially, to QG and QY, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To QN, until retired
- 3. Sequentially, to QG and QY, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 13**

The Group 13 Principal Distribution Amount will be allocated, concurrently, as follows:

- 1. 50% to CF, until retired
- 2. 50% in the following order of priority:
- a. Sequentially, to CP, CM and CN, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - b. To C, until retired
- c. Sequentially, to CP, CM and CN, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 14**

The Group 14 Principal Distribution Amount will be allocated to JU, until retired

#### **SECURITY GROUP 15**

The Group 15 Principal Distribution Amount will be allocated, concurrently, to FQ and QC, pro rata, until retired

#### **SECURITY GROUP 16**

The Group 16 Principal Distribution Amount and the GZ Accrual Amount will be allocated as follows:

- The GZ Accrual Amount, sequentially, to GV and GZ, in that order, until retired
- The Group 16 Principal Distribution Amount, sequentially, to GA, GV and GZ, in that order, until retired

#### **SECURITY GROUP 17**

The Group 17 Principal Distribution Amount, the Z Accrual Amount and the ZJ Accrual Amount will be allocated as follows:

- The Z Accrual Amount, sequentially, to JA and Z, in that order, until retired
- The Group 17 Principal Distribution Amount and the ZJ Accrual Amount in the following order of priority:
  - 1. Sequentially, to JA and Z, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
    - 2. To ZJ, until retired
  - 3. Sequentially, to JA and Z, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 18**

The Group 18 Principal Distribution Amount will be allocated, concurrently, as follows:

- 1. 66.66665815% to FE, until retired
- 2. 33.33334185% in the following order of priority:
- a. Sequentially, to EA and EL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - b. To E, until retired
- c. Sequentially, to EA and EL, in that order, without regard to their Aggregate Scheduled Principal Balance, 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	
CM, CN and CP (in the aggregate)	175% PSA through 275% PSA
EA and EL (in the aggregate)	200% PSA through 300% PSA
JA and Z (in the aggregate)	175% PSA through 375% PSA
QE and QL (in the aggregate)	184% PSA through 302% PSA
QG and QY (in the aggregate)	184% PSA through 302% PSA
WA and ZU (in the aggregate)	250% PSA through 450% PSA
WP	200% PSA through 400% PSA
PAC I Classes	
BH and BK (in the aggregate)	150% PSA through 300% PSA
MB, MC, MV, VM and ZM (in the aggregate)	150% PSA through 300% PSA
TP	150% PSA through 250% PSA
PAC II Classes	
BD, BL and BM (in the aggregate)	180% PSA through 300% PSA
MK	175% PSA through 300% PSA
MW	212% PSA through 300% PSA
TD	172% PSA through 250% 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, with respect to each Class other than Class XZ, will be distributable as principal as set forth in this Terms Sheet under "Allocation of Principal."

Principal will be distributed to Class XZ when received as principal from the related Underlying Certificate, as set forth in this Terms Sheet under "Allocation of Principal." The related Underlying Certificate is also an Accrual Class. Interest will accrue on the Underlying Certificate at the rate set forth on the front cover of the related Underlying Certificate Disclosure Document. However, no interest will be distributed to the Underlying Certificate as interest, but will constitute an Accrual Amount with respect to the related Underlying Trust, which will be added to the Class Principal Balance of the related Underlying Certificate on each Distribution Date and will be distributable as principal as set forth in the Terms Sheet of the related Underlying Certificate Disclosure Document.

**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 or Subgroup indicated:

Class	Original Class Notional Balance	Represents Approximately
AI	\$ 5,485,460	11.4513459467% of the last \$47,902,320 of the Group 3 Trust Assets
BI	4,399,108	12.5% of BH (PAC I Class)
CI	598,990	10% of C (SUP Class)
CS	38,751,442	100% of CF (PT Class)
DI	6,521,375	12.5% of DA (SEQ Class)
EI	677,633	18.1818181818% of E (SUP Class)
HS	30,737,202	100% of HF (PT Class)
IA	8,228,191	11.4513459467% of the first \$71,853,486 of the Group 3 Trust Assets
IK	2,550,641	36.3636363636% of WP (PAC/AD Class)
IΤ	5,779,788	The last \$5,779,788 of the Subgroup 14A Trust Assets
IW	13,713,651	11.4513459467% of the Group 3 Trust Assets
JI	25,937,250	37.5% of JA (PAC/AD Class)
KI	2,187,500	6.25% of KC (SEQ Class)
MI	\$ 4,062,500	6.25% of MB (PAC I Class)
	6,250,000	12.5% of MC (PAC I Class)
	\$10,312,500	
SE	\$52,186,722	100% of FE (PT Class)
SK	12,500,000	100% of FK (PT Class)
SP	41,932,139	100% of FP (PT Class)
SQ	26,819,120	100% of FQ (PT Class)
SW	40,000,000	100% of WF (PT Class)
TI	8,669,682	The first \$8,669,682 of the Subgroup 14A Trust Assets
WI	7,797,272	18.1818181818% of WA (PAC/AD Class)

**Tax Status:** Double REMIC Series. *See "Certain United States Federal Income Tax Consequences" in this Supplement and in the Base Offering Circular.* 

**Regular and Residual Classes:** Class RR is a Residual Class and represents the Residual Interest of the Issuing REMIC and the Pooling 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 the 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 classes, the related support class or 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 classes for that distribution date, this excess will be distributed to the related support class or classes.

The rate of payments on the underlying certificates will directly affect the rate of payments on the group 4, 11, 12 and 14 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, certain of the underlying

certificates included in trust asset groups 11 and 12 are not entitled to distributions of principal until certain classes of the related underlying series have been retired and, accordingly, distributions of principal of the related mortgage loans for extended periods may be applied to the distribution of principal of such classes of certificates having priority over these underlying certificates. Accordingly, these underlying certificates may receive no principal distributions for extended periods of time.

In addition, the underlying certificate included in trust asset group 4 is a class that provides support to other classes, and it is entitled to receive principal distributions only if scheduled payments have been made on other specified classes of the related underlying series (or if specified classes have been retired). Accordingly, this underlying certificate may receive no principal distributions for extended periods of time or may receive principal payments that vary widely from period to period.

In addition, the principal entitlements of certain of the underlying certificates included in trust asset groups 11 and 12 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 underlying certificates have adhered to any applicable principal balance schedules, whether any related supporting classes remain outstanding 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 2, 3, 7, 10, 13, 14, 15, 16 and 18 trust assets and up to 100% of the mortgage loans underlying the group 1, 4, 5, 6, 8, 9, 11, 12 and 17 trust assets may be higher 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 4, 11, 12 and 14 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 require ments 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, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18)

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 (Groups 4, 11, 12 and 14)

The Group 4, 11, 12 and 14 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. 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, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18 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, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18 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 Floating Rate Classes other than Delay Classes	From the 20th day of the month preceding the month of the related Distribution Date through the 19th day of the month of that 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.

#### Weighted Average Coupon Class

The Weighted Average Coupon Class will bear interest at a per annum Interest Rate as shown under "Terms Sheet — Interest Rates" in this Supplement.

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 BZ, DZ, GZ, KZ, MZ, NZ, QZ, TZ, UZ, XZ, ZJ, ZM, ZU and ZW 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 and each Accrual Amount will be distributed to the Holders entitled thereto as described under "Terms Sheet — Allocation of Principal" in this Supplement. With respect to Security Group 4, the related Principal Distribution Amount shall include any Accrual Amount distributed as principal on the related Underlying Certificate as described in the related Underlying Certificate Disclosure Document. 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 Issuing REMIC and the beneficial ownership of the Residual Interest in the Pooling REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class RR Securities have no Class Principal Balance and do not accrue interest. The Class RR Securities will be entitled to receive the proceeds of the disposition of any assets remaining in the Trust REMICs after the Class Principal Balance or Class Notional Balance of each Class of Regular Securities 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 the Trust and retire the Securities.

Upon any termination of the Trust, the Holder of any 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 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 Trust REMICs after payment in full of the amounts described in the foregoing sentence. However, any remaining assets are not likely to be significant.

# **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 3, 6, 11, 16, 23 and 24, 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 3, 6, 11, 16, 23 and 24, 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, Massachusetts, 02110, Attention: Ginnie Mae REMIC Trust 2018-154. 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 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 4, 11, 12 and 14 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 4, 11, 12 and 14 securities*" in this Supplement.

#### **Accretion Directed Classes**

Classes BA, BE, BF, BS, DV, GV, JA, MF, MS, MT, MU, MV, NV, TA, VK, VM, VN, WA, WP, Z and ZU are Accretion Directed Classes. The related Accrual Amounts will be applied to making principal distributions on those Classes as described in this Supplement. Class IK is a Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of Class WP.

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 DV, GV, MV, NV, VK, VM and VN will have principal payment stability only through the prepayment rate shown in the table below and within their

Effective Ranges, if applicable. 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 constant prepayment rate significantly higher than 0% PSA, except within any applicable Effective Ranges.

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 DV, GV, MV, NV, VK, VM and VN 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)(1)	Final Distribution Date	Prepayment Rate at or below
DV	6.0	January 2030	175% PSA
GV	6.0	January 2030	182% PSA
MV	15.0	November 2035	65% PSA
NV	14.2	December 2035	104% PSA
VK	6.0	January 2030	199% PSA
VM	7.0	October 2031	113% PSA
VN	6.0	February 2030	198% 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 DV, GV, MV, NV, VK, VM or VN, 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 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 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 Classes are as follows:

	Initial Effective Ranges
PAC Classes	
CM, CN and CP (in the aggregate)	175% PSA through 275% PSA
EA and EL (in the aggregate)	200% PSA through 300% PSA
JA and Z (in the aggregate)	175% PSA through 375% PSA
QE and QL (in the aggregate)	184% PSA through 302% PSA
QG and QY (in the aggregate)	184% PSA through 302% PSA
WA and ZU (in the aggregate)	250% PSA through 450% PSA
WP	200% PSA through 400% PSA
PAC I Classes	
BH and BK (in the aggregate)	150% PSA through 300% PSA
MB, MC, MV, VM and ZM (in the aggregate)	150% PSA through 300% PSA
TP	150% PSA through 250% PSA
PAC II Classes	
BD, BL and BM (in the aggregate)	180% PSA through 300% PSA
MK	175% PSA through 300% PSA
MW	212% PSA through 301% PSA
TD	172% PSA through 250% PSA

- The principal payment stability of the PAC Classes will be supported by the related Support Class.
- The principal payment stability of the PAC I Classes will be supported by the related PAC II Class or Classes and the related Support Classes.
- The principal payment stability of the PAC II 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 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 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 Class, the amount available to pay principal on the Securities may be insufficient to produce Scheduled Payments on such related PAC 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 Class, its supporting Class or Classes may be retired earlier than that PAC 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, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18 Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 and 18 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, 3, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17 or 18 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 December 2018.
  - 4. A termination of the Trust or the Underlying Trusts does not occur.
  - 5. The Closing Date for the Securities is November 30, 2018.
- 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

Classes FK, KA and SK				
0%	150%	311%	550%	700%
100	100	100	100	100
99	96	94	90	88
97	89	81	70	63
96	80	65	47	37
95	72	52	31	21
93	64	42	20	12
91	57	33	13	7
90	51	26	9	4
88	45	21	6	2
86	40	17	4	1
84	35	13	2	1
81	31	10	2	0
79	27	8	1	0
77	24	6	1	0
74	21	5	0	0
71	18	4	0	0
68	16	3	0	0
65	14	2	0	0
61	12	2	0	0
58	10	1	0	0
54	8	1	0	0
50	7	1	0	0
46	6	1	0	0
41	5	0	0	0
36	4	0	0	0
31	3	0	0	0
26	2	0	0	0
20	2	0	0	0
14	1	0	0	0
7	0	0	0	0
0	0	0	0	0
19.3	8.9	5.4	3.5	2.9
	100 99 97 96 95 93 91 90 88 86 84 81 79 77 74 71 68 65 61 58 54 50 46 41 31 26 20 14 7	0%         150%           100         100           99         96           97         89           96         80           95         72           93         64           91         57           90         51           88         45           86         40           84         35           81         31           79         27           77         24           71         18           68         16           65         14           61         12           58         10           54         8           50         7           46         6           41         5           36         4           31         3           26         2           14         1           7         0           0         0	0%         150%         311%           100         100         100           99         96         94           97         89         81           96         80         65           95         72         52           93         64         42           91         57         33           90         51         26           88         45         21           86         40         17           84         35         13           81         31         10           79         27         8           74         21         5           71         18         4           68         16         3           65         14         2           61         12         2           58         10         1           54         8         1           50         7         1           46         6         1           41         5         0           36         4         0           31         3         0	0%         150%         311%         550%           100         100         100         100           99         96         94         90           97         89         81         70           96         80         65         47           95         72         52         31           93         64         42         20           91         57         33         13           90         51         26         9           88         45         21         6           86         40         17         4           84         35         13         2           81         31         10         2           79         27         8         1           77         24         6         1           71         18         4         0           68         16         3         0           65         14         2         0           61         12         2         0           58         10         1         0           54         8         1

Security Group 2 PSA Prepayment Assumption Rates

	Classes FP, NT and SP							Class NA					Class NE	3	
Distribution Date	0%	100%	266%	450%	600%	0%	100%	266%	450%	600%	0%	100%	266%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	99	97	94	91	88	98	96	92	88	85	100	100	100	100	100
November 2020	97	91	82	73	65	97	89	78	65	56	100	100	100	100	100
November 2021	96	84	68	53	42	95	80	59	40	25	100	100	100	100	100
November 2022	95	78	56	38	26	93	72	44	21	6	100	100	100	100	100
November 2023	93	72	46	27	16	91	64	32	7	0	100	100	100	100	76
November 2024	91	66	38	19	10	89	57	21	0	0	100	100	100	89	47
November 2025	90	61	31	14	6	87	50	12	0	0	100	100	100	64	30
November 2026	88	56	26	10	4	84	43	5	0	0	100	100	100	45	19
November 2027	86	51	21	7	2	82	37	0	0	0	100	100	97	32	12
November 2028	84	46	17	5	2	79	32	0	0	0	100	100	79	23	7
November 2029	81	42	14	3	1	76	26	0	0	0	100	100	65	16	4
November 2030	79	38	11	2	1	73	22	0	0	0	100	100	53	11	3
November 2031	77	35	9	2	0	70	17	0	0	0	100	100	43	8	2
November 2032	74	31	7	1	0	67	13	0	0	0	100	100	34	6	1
November 2033	71	28	6	1	0	63	9	0	0	0	100	100	28	4	1
November 2034	68	25	5	1	0	59	5	0	0	0	100	100	22	3	0
November 2035	65	23	4	0	0	55	1	0	0	0	100	100	18	2	0
November 2036	61	20	3	0	0	51	0	0	0	0	100	93	14	1	0
November 2037	58	18	2	0	0	46	0	0	0	0	100	81	11	1	0
November 2038	54	15	2	0	0	41	0	0	0	0	100	71	9	1	0
November 2039	50	13	1	0	0	36	0	0	0	0	100	61	7	0	0
November 2040	46	11	1	0	0	31	0	0	0	0	100	52	5	0	0
November 2041	41	9	1	0	0	25	0	0	0	0	100	44	4	0	0
November 2042	36	8	1	0	0	19	0	0	0	0	100	36	3	0	0
November 2043	31	6	0	0	0	12	0	0	0	0	100	29	2	0	0
November 2044	26	5	0	0	0	5	0	0	0	0	100	22	1	0	0
November 2045	20	3	0	0	0	0	0	0	0	0	91	15	1	0	0
November 2046	14	2	0	0	0	0	0	0	0	0	63	9	0	0	0
November 2047	7	1	0	0	0	0	0	0	0	0	32	4	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average	19.3	10.9	6.0	4.0	3.2	16.8	7.6	4.0	2.7	2.2	28.4	22.7	13.5	8.6	6.5
Life (years)	19.3	10.9	0.0	4.0	3.4	10.8	7.0	4.0	4./	4.4	20.4	44./	13.3	0.0	0.5

Security Group 2 PSA Prepayment Assumption Rates

			Class NV	-				Class NZ	:				Class VN		
Distribution Date	0%	100%	266%	450%	600%	0%	100%	266%	450%	600%	0%	100%	266%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	100	100	100	104	104	104	104	104	93	93	93	93	93
November 2020	100	100	100	100	100	107	107	107	107	107	85	85	85	85	85
November 2021	100	100	100	100	100	111	111	111	111	111	77	77	77	77	77
November 2022	100	100	100	100	100	115	115	115	115	115	69	69	69	69	69
November 2023	100	100	100	100	55	119	119	119	119	119	60	60	60	60	0
November 2024	100	100	100	100	0	123	123	123	123	86	51	51	51	11	0
November 2025	100	100	100	0	0	128	128	128	115	54	42	42	42	0	0
November 2026	100	100	100	0	0	132	132	132	82	34	33	33	33	0	0
November 2027	100	100	100	0	0	137	137	137	58	21	23	23	13	0	0
November 2028	100	100	6	0	0	142	142	142	41	13	13	13	0	0	0
November 2029	100	100	0	0	0	147	147	117	29	8	2	2	0	0	0
November 2030	88	88	0	0	0	152	152	95	21	5	0	0	0	0	0
November 2031	71	71	0	0	0	158	158	77	15	3	0	0	0	0	0
November 2032	55	55	0	0	0	163	163	62	10	2	0	0	0	0	0
November 2033	37	37	0	0	0	169	169	50	7	1	0	0	0	0	0
November 2034	19	19	0	0	0	175	175	40	5	1	0	0	0	0	0
November 2035	0	0	0	0	0	181	181	32	3	0	0	0	0	0	0
November 2036	0	0	0	0	0	181	168	25	2	0	0	0	0	0	0
November 2037	0	0	0	0	0	181	148	20	2	0	0	0	0	0	0
November 2038	0	0	0	0	0	181	129	15	1	0	0	0	0	0	0
November 2039	0	0	0	0	0	181	111	12	1	0	0	0	0	0	0
November 2040	0	0	0	0	0	181	95	9	0	0	0	0	0	0	0
November 2041	0	0	0	0	0	181	79	7	0	0	0	0	0	0	0
November 2042	0	0	0	0	0	181	65	5	0	0	0	0	0	0	0
November 2043	0	0	0	0	0	181	52	4	0	0	0	0	0	0	0
November 2044	0	0	0	0	0	181	39	2	0	0	0	0	0	0	0
November 2045	0	0	0	0	0	165	28	2	0	0	0	0	0	0	0
November 2046	0	0	0	0	0	113	17	1	0	0	0	0	0	0	0
November 2047	0	0	0	0	0	58	7	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	14.2	14.2	9.6	6.4	5.0	28.4	22.7	14.6	9.6	7.4	6.0	6.0	5.7	4.5	3.8

Security Group 3
PSA Prepayment Assumption Rates

			Class AI					Class IA				Class	es IK an	d WP	
Distribution Date	0%	200%	300%	400%	600%	0%	200%	300%	400%	600%	0%	200%	300%	400%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	100	100	100	98	84	77	71	57	97	87	87	87	87
November 2020	100	100	100	100	100	96	64	50	37	12	95	71	71	71	59
November 2021	100	100	100	100	74	95	47	28	11	0	92	56	56	56	37
November 2022	100	100	100	87	47	92	32	9	0	0	88	43	43	43	23
November 2023	100	100	92	65	29	90	18	Ó	0	0	85	32	32	32	15
November 2024	100	100	74	48	18	88	7	0	0	0	81	24	24	24	9
November 2025	100	95	59	36	12	85	0	0	0	0	78	18	18	18	6
November 2026	100	81	47	27	7	82	0	0	0	0	74	13	13	13	4
November 2027	100	70	38	20	5	80	0	0	0	0	69	10	10	10	2
November 2028	100	60	30	15	3	76	0	0	0	0	65	7	7	7	1
November 2029	100	51	24	11	2	73	Ŏ	Ő	Ŏ	Ö	60	5	5	5	1
November 2030	100	43	19	8	1	69	0	0	0	0	55	4	4	4	1
November 2031	100	37	15	6	1	65	0	0	0	0	49	3	3	3	0
November 2032	100	31	12	4	0	61	Ŏ	Õ	Ŏ	Ŏ	43	2	2	2	Ŏ
November 2033	100	26	9	3	0	57	0	0	0	0	37	2	2	2	0
November 2034	100	22	Ź	2	0	52	0	Ő	0	0	30	1	1	1	Õ
November 2035	100	18	6	2	Ŏ	47	Ö	Ő	Ö	Ö	23	1	1	1	Ŏ
November 2036	100	15	4	1	0	41	0	0	0	0	15	1	1	1	0
November 2037	100	12	3	1	0	35	0	Ő	0	0	-7	0	0	0	Õ
November 2038	100	10	2	1	Õ	29	Õ	Õ	Õ	Õ	Ó	Õ	Õ	Õ	Õ
November 2039	100	8	2	0	0	22	0	0	0	0	0	0	0	0	0
November 2040	100	6	1	0	0	15	0	Õ	0	Õ	Õ	0	Õ	Õ	Õ
November 2041	100	5	1	Ŏ	Ŏ	7	Ŏ	Õ	Ŏ	Ŏ	Ŏ	Ŏ	Õ	Õ	Ŏ
November 2042	98	4	1	0	0	0	0	0	0	0	0	0	0	0	0
November 2043	84	3	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2044	69	2	Ö	Õ	Õ	Õ	0	Õ	0	Õ	Õ	Õ	Õ	Õ	Õ
November 2045	54	1	0	0	0	Õ	0	Õ	0	Õ	Õ	0	Õ	Õ	Õ
November 2046	37	0	0	0	0	Õ	0	Õ	Õ	Õ	Õ	0	Õ	Õ	Õ
November 2047	19	Ŏ	Ŏ	Ŏ	ŏ	ŏ	Ŏ	ŏ	ŏ	Ŏ	ŏ	Ŏ	Ŏ	ő	Ŏ
November 2048	0	ő	ő	ő	Ő	ŏ	ő	ő	ő	Ő	Ŏ	Ő	ő	ő	Ŏ
Weighted Average	~	~					V	~	V	0	~	0	~	~	~
Life (years)	27.1	12.5	9.0	6.9	4.5	15.1	3.0	2.1	1.7	1.2	11.9	4.3	4.3	4.3	3.0

Security Group 3 PSA Prepayment Assumption Rates

		lasses IV	v, sw, w	E and W	F			Class UZ	:		Clas	ses WA,	WB, WC	WD and	l WI
Distribution Date	0%	200%	300%	400%	600%	0%	200%	300%	400%	600%	0%	200%	300%	400%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	99	91	86	82	74	104	104	93	72	28	98	87	85	85	85
November 2020	98	79	70	62	47	108	108	86	43	0	95	71	66	66	58
November 2021	97	68	57	46	30	113	113	83	29	0	93	57	50	50	36
November 2022	95	59	46	35	19	117	117	83	25	0	90	45	36	36	22
November 2023	94	51	37	26	12	122	122	81	23	0	87	34	25	25	13
November 2024	93	44	30	19	7	127	127	75	21	0	84	24	18	18	8
November 2025	91	38	24	14	5	132	132	68	18	0	81	15	12	12	4
November 2026	89	33	19	11	3	138	132	59	15	0	78	8	8	8	2
November 2027	88	28	15	8	2	143	119	51	12	0	74	5	5	5	1
November 2028	86	24	12	6	1	149	106	43	10	0	70	3	3	3	0
November 2029	84	20	10	4	1	155	94	36	8	0	66	2	2	2	0
November 2030	82	17	8	3	0	161	82	30	6	0	62	1	1	1	0
November 2031	79	15	6	2	0	168	71	25	5	0	58	0	0	0	0
November 2032	77	12	5	2	0	175	61	20	4	0	53	0	0	0	0
November 2033	74	10	4	1	0	182	52	16	3	0	48	0	0	0	0
November 2034	71	9	3	1	0	189	44	13	2	0	42	0	0	0	0
November 2035	68	7	2	1	0	197	37	10	2	0	37	0	0	0	0
November 2036	65	6	2	0	0	205	31	8	1	0	31	0	0	0	0
November 2037	61	5	1	0	0	214	25	6	1	0	24	0	0	0	0
November 2038	57	4	1	0	0	222	21	5	1	0	17	0	0	0	0
November 2039	53	3	1	0	0	231	17	4	0	0	10	0	0	0	0
November 2040	49	3	1	0	0	241	13	3	0	0	2	0	0	0	0
November 2041	44	2	0	0	0	235	10	2	0	0	0	0	0	0	0
November 2042	39	1	0	0	0	208	8	1	0	0	0	0	0	0	0
November 2043	34	1	0	0	0	179	5	1	0	0	0	0	0	0	0
November 2044	28	1	0	0	0	148	4	1	0	0	0	0	0	0	0
November 2045	22	0	0	0	0	115	2	0	0	0	0	0	0	0	0
November 2046	15	0	0	0	0	79	1	0	0	0	0	0	0	0	0
November 2047	8	0	0	0	0	41	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	19.9	6.8	4.9	3.8	2.5	26.6	14.4	9.5	3.5	0.7	13.5	4.0	3.6	3.6	2.8

# PSA Prepayment Assumption Rates

			Class ZU					Class ZW		
Distribution Date	0%	200%	300%	400%	600%	0%	200%	300%	400%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2019	104	104	104	104	104	106	106	85	64	22
November 2020	108	108	108	108	108	112	112	68	26	0
November 2021	113	113	113	113	113	118	118	59	6	0
November 2022	117	117	117	117	117	125	125	56	0	0
November 2023	122	122	122	122	122	132	128	56	0	0
November 2024	127	127	127	127	127	139	126	53	0	0
November 2025	132	132	132	132	132	147	120	48	0	0
November 2026	138	138	138	138	138	155	112	43	0	0
November 2027	143	143	143	143	143	164	103	37	0	0
November 2028	149	149	149	149	139	173	92	32	0	0
November 2029	155	155	155	155	86	183	82	27	0	0
November 2030	161	161	161	161	53	193	73	23	0	0
November 2031	168	168	168	168	33	204	64	19	0	0
November 2032	175	121	121	121	20	216	55	16	0	0
November 2033	182	84	84	84	12	228	47	13	0	0
November 2034	189	58	58	58	8	241	40	10	0	0
November 2035	197	40	40	40	5	254	34	8	0	0
November 2036	205	28	28	28	3	269	28	7	0	0
November 2037	214	19	19	19	2	284	24	5	0	0
November 2038	222	13	13	13	1	293	19	4	0	0
November 2039	231	8	8	8	1	272	16	3	0	0
November 2040	241	5	5	5	0	250	12	2	0	0
November 2041	3	3	3	3	0	226	10	2	0	0
November 2042	2	2	2	2	0	200	7	1	0	0
November 2043	1	1	1	1	0	172	5	1	0	0
November 2044	1	1	1	1	0	142	3	0	0	0
November 2045	0	0	0	0	0	110	2	0	0	0
November 2046	0	0	0	0	0	76	1	0	0	0
November 2047	0	0	0	0	0	39	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	22.5	15.8	15.8	15.8	12.0	25.5	13.9	7.3	1.5	0.7

Security Group 4
PSA Prepayment Assumption Rates

			Class XZ		
Distribution Date	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100
November 2019	103	103	73	39	6
November 2020	106	106	36	0	0
November 2021	109	109	11	0	0
November 2022	113	113	0	0	0
November 2023	116	116	0	0	0
November 2024	120	120	0	0	0
November 2025	123	123	0	0	0
November 2026	127	127	0	0	0
November 2027	131	131	0	0	0
November 2028	135	125	0	0	0
November 2029	139	116	0	0	0
November 2030	143	107	0	0	0
November 2031	148	98	0	0	0
November 2032	152	88	0	0	0
November 2033	157	79	0	0	0
November 2034	162	70	0	0	0
November 2035	166	61	0	0	0
November 2036	171	53	0	0	0
November 2037	177	46	0	0	0
November 2038	182	39	0	0	0
November 2039	188	32	0	0	0
November 2040	193	27	0	0	0
November 2041	196	21	0	0	0
November 2042	167	17	0	0	0
November 2043	136	12	0	0	0
November 2044	104	9	0	0	0
November 2045	71	5	0	0	0
November 2046	36	3	0	0	0
November 2047	0	Ö	0	0	0
November 2048	0	0	0	0	0
Weighted Average Life (years)	26.1	17.2	1.7	0.8	0.6

Security Groups 3 and 4 PSA Prepayment Assumption Rates

				Class WZ			
Distribution Date	0%	150%	200%	300%	400%	450%	600%
Initial Percent	100	100	100	100	100	100	100
November 2019	104	104	97	75	53	42	9
November 2020	107	107	92	43	5	1	0
November 2021	111	111	89	21	1	0	0
November 2022	115	115	89	11	0	0	0
November 2023	119	119	91	11	0	0	0
November 2024	124	124	92	11	0	0	0
November 2025	128	128	90	10	0	0	0
November 2026	133	133	86	9	0	0	0
November 2027	138	135	81	7	0	0	0
November 2028	143	128	74	6	0	0	0
November 2029	148	119	67	š	Ŏ	Ö	Ŏ
November 2030	153	109	60	5	0	0	0
November 2031	159	99	54	4	Õ	Õ	0
November 2032	165	89	47	3	Ŏ	Ö	Ŏ
November 2033	171	79	41	3	0	0	0
November 2034	177	70	35	2	0	0	0
November 2035	184	61	30	2	Ŏ	Ö	Ŏ
November 2036	191	53	25	1	0	0	0
November 2037	198	46	21	1	0	0	0
November 2038	204	39	18	1	Ŏ	Ö	Ŏ
November 2039	204	32	14	1	0	0	0
November 2040	205	26	11	0	0	0	0
November 2041	202	21	9	Ö	Ŏ	Ö	Ŏ
November 2042	173	17	7	0	0	0	0
November 2043	143	12	5	0	0	0	0
November 2044	112	9	3	Ö	Ŏ	Ö	Ŏ
November 2045	79	5	2	0	0	0	0
November 2046	44	2	1	Õ	Õ	Õ	0
November 2047	8	0	0	Ö	Ŏ	Ö	Õ
November 2048	0	Õ	Õ	Õ	Õ	Õ	0
Weighted Average	~	~	~	~	~	~	
Life (years)	26.2	17.0	13.6	2.8	1.1	0.9	0.6

Security Group 5 PSA Prepayment Assumption Rates

		Classes I	BA, BE, B	F and B	6		Classes	BD, BL	and BM		,	Classes I	BG, BH, E	I and BI	,
Distribution Date	0%	150%	260%	300%	600%	0%	150%	260%	300%	600%	0%	150%	260%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	89	84	45	100	100	88	88	88	98	93	93	93	93
November 2020	100	100	71	56	0	100	100	65	65	0	96	83	83	83	77
November 2021	100	100	53	30	0	100	100	42	42	0	94	71	71	71	48
November 2022	100	100	41	14	0	100	100	24	24	0	92	60	60	60	30
November 2023	100	100	33	4	0	100	100	12	12	0	90	50	50	50	19
November 2024	100	100	30	0	0	100	100	4	4	0	88	41	41	41	11
November 2025	100	100	28	0	0	100	100	0	0	0	85	33	33	33	7
November 2026	100	100	27	0	0	100	94	0	0	0	83	26	26	26	4
November 2027	100	100	25	0	0	100	79	0	0	0	80	21	21	21	2
November 2028	100	100	22	0	0	100	58	0	0	0	77	16	16	16	1
November 2029	100	100	20	0	0	100	34	0	0	0	74	13	13	13	1
November 2030	100	100	18	0	0	100	8	0	0	0	71	10	10	10	0
November 2031	100	94	15	0	0	100	0	0	0	0	68	8	8	8	0
November 2032	100	85	13	0	0	100	0	0	0	0	64	6	6	6	0
November 2033	100	76	11	0	0	100	0	0	0	0	60	5	5	5	0
November 2034	100	68	10	0	0	100	0	0	0	0	56	3	3	3	0
November 2035	100	60	8	0	0	100	0	0	0	0	52	3	3	3	0
November 2036	100	52	7	0	0	100	0	0	0	0	48	2	2	2	0
November 2037	100	45	5	0	0	100	0	0	0	0	43	1	1	1	0
November 2038	100	39	4	0	0	100	0	0	0	0	38	1	1	1	0
November 2039	100	33	4	0	0	100	0	0	0	0	33	0	0	0	0
November 2040	100	27	3	0	0	100	0	0	0	0	27	0	0	0	0
November 2041	100	22	2	0	0	100	0	0	0	0	21	0	0	0	0
November 2042	100	18	2	0	0	100	0	0	0	0	15	0	0	0	0
November 2043	100	13	1	0	0	100	0	0	0	0	8	0	0	0	0
November 2044	100	10	1	0	0	100	0	0	0	0	2	0	0	0	0
November 2045	100	6	0	0	0	26	0	0	0	0	0	0	0	0	0
November 2046	74	4	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2047	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	28.7	19.0	5.9	2.4	0.9	26.8	10.2	2.8	2.8	1.5	16.2	6.0	6.0	6.0	3.5

# PSA Prepayment Assumption Rates

			Class BK					Class BZ		
Distribution Date	0%	150%	260%	300%	600%	0%	150%	260%	300%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	100	100	100	104	104	104	104	104
November 2020	100	100	100	100	100	108	108	108	108	0
November 2021	100	100	100	100	100	113	113	113	113	0
November 2022	100	100	100	100	100	117	117	117	117	0
November 2023	100	100	100	100	100	122	122	122	122	0
November 2024	100	100	100	100	100	127	127	127	127	0
November 2025	100	100	100	100	100	132	132	132	0	0
November 2026	100	100	100	100	100	138	138	138	0	0
November 2027	100	100	100	100	100	143	143	143	0	0
November 2028	100	100	100	100	100	149	149	149	0	0
November 2029	100	100	100	100	100	155	155	155	0	0
November 2030	100	100	100	100	100	161	161	161	0	0
November 2031	100	100	100	100	76	168	168	168	0	0
November 2032	100	100	100	100	47	175	175	175	0	0
November 2033	100	100	100	100	28	182	182	182	0	0
November 2034	100	100	100	100	17	189	189	189	0	0
November 2035	100	100	100	100	10	197	197	197	0	0
November 2036	100	100	100	100	6	205	205	205	0	0
November 2037	100	100	100	100	4	214	214	214	0	0
November 2038	100	100	100	100	2	222	222	222	0	0
November 2039	100	100	100	100	1	231	231	231	0	0
November 2040	100	100	100	100	1	241	241	241	0	0
November 2041	100	100	100	100	0	251	251	251	Ö	Ŏ
November 2042	100	71	71	71	0	261	261	261	0	0
November 2043	100	49	49	49	0	271	271	271	0	0
November 2044	100	32	32	32	Ö	282	282	282	Õ	Õ
November 2045	19	19	19	19	Ö	294	294	294	0	Õ
November 2046	10	10	10	10	Ö	306	306	306	Ő	ő
November 2047	3	3	3	3	ŏ	318	318	188	Ő	Ŏ
November 2048	0	ő	0	0	Ö	0	0	0	Ő	Ő
Weighted Average	0	~			0					
Life (years)	26.6	25.3	25.3	25.3	14.5	30.0	29.5	29.1	6.7	1.6

Security Group 6 PSA Prepayment Assumption Rates

		Class	es KC a	ınd KI				Class K	Y			-	Class K	Z			(	Class VI	K	
Distribution Date	0%	250%	496%	750%	1,000%	0%	250%	496%	750%	1,000%	0%	250%	496%	750%	1,000%	0%	250%	496%	750%	1,000%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	98	94	90	85	81	100	100	100	100	100	104	104	104	104	104	93	93	93	93	93
November 2020	96	81	66	52	39	100	100	100	100	100	108	108	108	108	108	85	85	85	85	85
November 2021	95	63	38	17	0	100	100	100	100	99	113	113	113	113	113	77	77	77	77	75
November 2022	92	48	17	0	0	100	100	100	86	39	117	117	117	117	61	69	69	69	29	0
November 2023	90	35	3	0	0	100	100	100	46	15	122	122	122	72	24	61	61	61	0	0
November 2024	88	24	0	0	0	100	100	76	25	6	127	127	119	39	9	52	52	0	0	0
November 2025	86	15	0	0	0	100	100	52	13	2	132	132	82	21	4	42	42	0	0	0
November 2026	83	8	0	0	0	100	100	36	7	1	138	138	56	11	1	33	33	0	0	0
November 2027	80	2	0	0	0	100	100	24	4	0	143	143	38	6	1	23	23	0	0	0
November 2028	78	0	0	0	0	100	87	17	2	0	149	136	26	3	0	12	0	0	0	0
November 2029	75	0	0	0	0	100	72	11	1	0	155	112	18	2	0	1	0	0	0	0
November 2030	71	0	0	0	0	100	59	8	1	0	156	92	12	1	0	0	0	0	0	0
November 2031	68	0	0	0	0	100	48	5	0	0	156	75	8	0	0	0	0	0	0	0
November 2032	65	0	0	0	0	100	39	4	0	0	156	61	5	0	0	0	0	0	0	0
November 2033	61	0	0	0	0	100	32	2	0	0	156	50	4	0	0	0	0	0	0	0
November 2034	57	0	0	0	0	100	26	2	0	0	156	40	2	0	0	0	0	0	0	0
November 2035	53	0	0	0	0	100	21	1	0	0	156	33	2	0	0	0	0	0	0	0
November 2036	48	0	0	0	0	100	17	1	0	0	156	26	1	0	0	0	0	0	0	0
November 2037	44	0	0	0	0	100	13	0	0	0	156	21	1	0	0	0	0	0	0	0
November 2038	39	0	0	0	0	100	10	0	0	0	156	16	0	0	0	0	0	0	0	0
November 2039	34	0	0	0	0	100	8	0	0	0	156	13	0	0	0	0	0	0	0	0
November 2040	28	0	0	0	0	100	6	0	0	0	156	10	0	0	0	0	0	0	0	0
November 2041	22	0	0	0	0	100	5	0	0	0	156	7	0	0	0	0	0	0	0	0
November 2042	16	0	0	0	0	100	4	0	0	0	156	6	0	0	0	0	0	0	0	0
November 2043	10	0	0	0	0	100	3	0	0	0	156	4	0	0	0	0	0	0	0	0
November 2044	3	0	0	0	0	100	2	0	0	0	156	3	0	0	0	0	0	0	0	0
November 2045	0	0	0	0	0	85	1	0	0	0	133	2	0	0	0	0	0	0	0	0
November 2046	0	0	0	0	0	58	1	0	0	0	91	1	0	0	0	0	0	0	0	0
November 2047	0	0	0	0	0	30	0	0	0	0	47	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	16.3	4.2	2.7	2.1	1.7	28.3	14.1	7.9	5.4	4.1	28.3	14.4	8.5	5.8	4.4	6.0	5.8	4.4	3.4	2.8

Security Group 7
PSA Prepayment Assumption Rates

		Class	es HB, HF ar	nd HS	
Distribution Date	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100
November 2019	99	92	86	79	73
November 2020	98	83	70	57	46
November 2021	97	74	56	41	29
November 2022	95	66	45	30	18
November 2023	94	59	36	21	12
November 2024	93	53	29	15	7
November 2025	91	47	23	11	5
November 2026	89	42	19	8	5 3 2
November 2027	88	37	15	5	2
November 2028	86	33	12	4	1
November 2029	84	29	10	3	1
November 2030	82	25	8	2	0
November 2031	79	22	6	1	0
November 2032	77	20	5	1	0
November 2033	74	17	4	1	0
November 2034	71	15	3	0	0
November 2035	68	13	2	0	0
November 2036	65	11	2	0	0
November 2037	61	9	1	0	0
November 2038	57	8	1	0	0
November 2039	53	6	1	0	0
November 2040	49	5	1	0	0
November 2041	44	4	0	0	0
November 2042	39	3	0	0	0
November 2043	34	2	0	0	0
November 2044	28	2	0	0	0
November 2045	22	1	0	0	0
November 2046	15	0	0	0	0
November 2047	8	0	0	0	0
November 2048	0	0	0	0	0
Weighted Average Life (years)	19.9	8.3	4.8	3.3	2.5

Security Groups 3 and 7 PSA Prepayment Assumption Rates

			-	Class FW	7					-	Class WC	ì		
Distribution Date	0%	150%	200%	300%	400%	450%	600%	0%	150%	200%	300%	400%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	99	92	90	86	82	80	74	99	92	90	86	82	80	74
November 2020	98	83	78	70	62	58	47	98	83	78	70	62	58	47
November 2021	97	74	68	56	46	42	30	97	74	68	56	46	42	29
November 2022	95	66	59	45	34	30	19	95	66	59	45	34	30	19
November 2023	94	59	51	37	26	21	12	94	59	51	37	26	21	12
November 2024	93	53	44	29	19	15	7	93	53	44	29	19	15	7
November 2025	91	47	38	24	14	11	5	91	47	38	24	14	11	5
November 2026	89	42	32	19	11	8	3	89	42	32	19	11	8	3
November 2027	88	37	28	15	8	6	2	88	37	28	15	8	6	2
November 2028	86	33	24	12	6	4	1	86	33	24	12	6	4	1
November 2029	84	29	20	10	4	3	1	84	29	20	10	4	3	1
November 2030	82	26	17	8	3	2	0	82	26	17	8	3	2	0
November 2031	79	22	15	6	2	1	0	79	22	15	6	2	1	0
November 2032	77	20	12	5	2	1	0	77	20	12	5	2	1	0
November 2033	74	17	10	4	1	1	0	74	17	10	4	1	1	0
November 2034	71	15	9	3	1	0	0	71	15	9	3	1	0	0
November 2035	68	13	Ź	2	1	0	0	68	13	Ź	2	1	0	0
November 2036	65	11	6	2	0	0	0	65	11	6	2	0	0	0
November 2037	61	9	5	1	0	0	0	61	9	5	1	0	0	0
November 2038	57	8	4	1	0	0	0	57	8	4	1	0	0	0
November 2039	53	6	3	1	0	0	0	53	6	3	1	0	0	0
November 2040	49	5	3	1	0	0	0	49	5	3	1	0	0	0
November 2041	44	4	2	0	0	0	0	44	4	2	0	0	0	0
November 2042	39	3	1	0	0	0	0	39	3	1	0	0	0	0
November 2043	34	2	1	0	0	0	0	34	2	1	0	0	0	0
November 2044	28	2	1	0	0	0	0	28	2	1	0	0	0	0
November 2045	22	1	0	0	0	0	0	22	1	0	0	0	0	0
November 2046	15	0	0	0	0	0	0	15	0	0	0	0	0	0
November 2047	8	0	0	0	0	0	0	8	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average														
Life (years)	19.9	8.3	6.8	4.9	3.7	3.3	2.5	19.9	8.3	6.8	4.9	3.7	3.3	2.5

Security Group 8 PSA Prepayment Assumption Rates

		(	Class TA	1			(	Class TI	)			(	lass TI	•			Class TZ					
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		
November 2019	100	100	95	91	60	100	100	92	92	92	98	95	95	95	95	104	104	104	104	104		
November 2020	100	100	85	68	0	100	100	73	73	0	97	87	87	87	86	108	108	108	108	0		
November 2021	100	100	71	42	0	100	100	49	49	0	95	76	76	76	60	113	113	113	113	0		
November 2022	100	100	61	23	0	100	100	31	31	0	93	65	65	65	41	117	117	117	117	0		
November 2023	100	100	55	10	0	100	100	17	17	0	91	56	56	56	28	122	122	122	122	0		
November 2024	100	100	50	3	0	100	100	8	8	0	89	48	48	48	19	127	127	127	127	0		
November 2025	100	100	48	0	0	100	100	2	2	0	87	40	40	40	13	132	132	132	132	0		
November 2026	100	100	47	0	0	100	100	0	0	0	84	33	33	33	9	138	138	138	35	0		
November 2027	100	100	45	0	0	100	93	0	0	0	82	28	28	28	6	143	143	143	35	0		
November 2028	100	100	43	0	0	100	80	0	0	0	79	23	23	23	4	149	149	149	35	0		
November 2029	100	100	40	0	0	100	61	0	0	0	76	19	19	19	3	155	155	155	35	0		
November 2030	100	100	36	0	0	100	39	0	0	0	73	15	15	15	2	161	161	161	35	0		
November 2031	100	100	33	0	0	100	15	0	0	0	70	13	13	13	1	168	168	168	35	0		
November 2032	100	97	30	0	0	100	0	0	0	0	67	10	10	10	1	175	175	175	35	0		
November 2033	100	88	26	0	0	100	0	0	0	0	63	8	8	8	1	182	182	182	35	0		
November 2034	100	79	23	0	0	100	0	0	0	0	60	7	7	7	0	189	189	189	35	0		
November 2035	100	71	20	0	0	100	0	0	0	0	56	5	5	5	0	197	197	197	35	0		
November 2036	100	63	17	0	0	100	0	0	0	0	52	4	4	4	0	205	205	205	35	0		
November 2037	100	55	15	0	0	100	0	0	0	0	47	3	3	3	0	214	214	214	35	0		
November 2038	100	48	12	0	0	100	0	0	0	0	43	3	3	3	0	222	222	222	35	0		
November 2039	100	41	10	0	0	100	0	0	0	0	38	2	2	2	0	231	231	231	35	0		
November 2040	100	34	8	0	0	100	0	0	0	0	33	2	2	2	0	241	241	241	35	0		
November 2041	100	28	7	0	0	100	0	0	0	0	28	1	1	1	0	251	251	251	35	0		
November 2042	100	23	5	0	0	100	0	0	0	0	22	1	1	1	0	261	261	261	35	0		
November 2043	100	18	4	0	0	100	0	0	0	0	16	1	1	1	0	271	271	271	35	0		
November 2044	100	13	3	0	0	100	0	0	0	0	9	0	0	0	0	282	282	282	35	0		
November 2045	100	9	2	0	0	100	0	0	0	0	3	0	0	0	0	294	294	294	35	0		
November 2046	100	6	1	0	0	9	0	0	0	0	0	0	0	0	0	306	306	306	35	0		
November 2047	53	2	0	0	0	0	0	0	0	0	0	0	0	0	0	318	318	318	35	0		
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average																						
Life (years)	29.0	20.3	9.4	2.9	1.1	27.7	11.4	3.2	3.2	1.7	17.0	7.0	7.0	7.0	4.2	30.0	29.8	29.6	13.4	1.7		

Security Group 9 PSA Prepayment Assumption Rates

	Classes MB, MC and MI						Classes	MF, MS	and M	Г		C	lass MF			Class MU				
Distribution Date	0%	150%	250%	300%	500%	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	100	100	100	100	100
November 2019	98	93	93	93	93	100	100	94	85	51	100	100	89	89	89	100	100	91	86	63
November 2020	96	82	82	82	82	100	100	81	57	0	100	100	67	67	53	100	100	75	59	0
November 2021	94	68	68	68	55	100	100	69	30	0	100	100	43	43	0	100	100	59	32	0
November 2022	92	56	56	56	34	100	100	61	14	0	100	100	26	26	0	100	100	47	15	0
November 2023	89	45	45	45	20	100	100	57	5	0	100	100	13	13	0	100	100	40	5	0
November 2024	87	35	35	35	10	100	100	54	2	0	100	100	4	4	0	100	100	36	1	0
November 2025	84	26	26	26	3	100	100	52	0	0	100	100	0	0	0	100	100	35	0	0
November 2026	81	18	18	18	0	100	100	49	0	0	100	93	0	0	0	100	100	33	0	0
November 2027	78	12	12	12	0	100	100	45	0	0	100	76	0	0	0	100	100	30	0	0
November 2028	75	7	7	7	0	100	100	41	0	0	100	52	0	0	0	100	100	28	0	0
November 2029	71	3	3	3	0	100	100	37	0	0	100	24	0	0	0	100	100	25	0	0
November 2030	68	0	0	0	0	100	100	33	0	0	100	0	0	0	0	100	98	22	0	0
November 2031	64	0	0	0	0	100	100	29	0	0	100	0	0	0	0	100	90	19	0	0
November 2032	60	0	0	0	0	100	100	25	0	0	100	0	0	0	0	100	81	17	0	0
November 2033	56	0	0	0	0	100	100	21	0	0	100	0	0	0	0	100	73	14	0	0
November 2034	51	0	0	0	0	100	97	18	0	0	100	0	0	0	0	100	65	12	0	0
November 2035	47	0	0	0	0	100	86	15	0	0	100	0	0	0	0	100	57	10	0	0
November 2036	42	0	0	0	0	100	75	13	0	0	100	0	0	0	0	100	50	9	0	0
November 2037	37	0	0	0	0	100	65	11	0	0	100	0	0	0	0	100	43	7	0	0
November 2038	31	0	0	0	0	100	55	9	0	0	100	0	0	0	0	100	37	6	0	0
November 2039	25	0	0	0	0	100	47	7	0	0	100	0	0	0	0	100	31	5	0	0
November 2040	19	0	0	0	0	100	39	5	0	0	100	0	0	0	0	100	26	4	0	0
November 2041	12	0	0	0	0	100	32	4	0	0	100	0	0	0	0	100	21	3	0	0
November 2042	6	0	0	0	0	100	25	3	0	0	100	0	0	0	0	100	17	2	0	0
November 2043	0	0	0	0	0	100	19	2	0	0	100	0	0	0	0	100	13	2	0	0
November 2044	0	0	0	0	0	100	14	2	0	0	100	0	0	0	0	100	10	1	0	0
November 2045	0	0	0	0	0	100	10	1	0	0	12	0	0	0	0	100	6	1	0	0
November 2046	0	0	0	0	0	100	5	0	0	0	0	0	0	0	0	71	4	0	0	0
November 2047	0	0	0	0	0	54	2	0	0	0	0	0	0	0	0	36	1	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	15.1	5.0	5.0	5.0	3.5	29.1	21.2	8.9	2.4	1.0	26.7	10.0	2.9	2.9	1.8	28.6	18.8	6.8	2.5	1.2

PSA P	repayment	Assumption	Rates
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		(	Class M	V			C	lass M	W			C	lass M	Y			Class MZ					
Distribution Date	0%	150%	250%	300%	500%	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	100	100	100	100	100		
November 2019	100	100	100	100	100	100	100	88	88	88	100	100	100	100	100	104	104	104	104	104		
November 2020	100	100	100	100	100	100	100	65	65	23	100	100	100	100	100	108	108	108	108	0		
November 2021	100	100	100	100	100	100	100	40	40	0	100	100	100	100	100	113	113	113	113	0		
November 2022	100	100	100	100	100	100	100	22	22	0	100	100	100	100	100	117	117	117	117	0		
November 2023	100	100	100	100	100	100	100	9	9	0	100	100	100	100	100	122	122	122	122	0		
November 2024	100	100	100	100	100	100	100	1	1	0	100	100	100	100	100	127	127	127	127	0		
November 2025	100	100	100	100	100	100	100	0	0	0	100	100	100	100	100	132	132	132	11	0		
November 2026	100	100	100	100	99	100	97	0	0	0	100	100	100	100	85	138	138	138	11	0		
November 2027	100	100	100	100	0	100	90	0	0	0	100	100	100	100	58	143	143	143	11	0		
November 2028	100	100	100	100	0	100	79	0	0	0	100	100	100	100	39	149	149	149	11	0		
November 2029	100	100	100	100	0	100	67	0	0	0	100	100	100	100	27	155	155	155	11	0		
November 2030	100	100	100	100	0	100	53	0	0	0	100	100	100	100	18	161	161	161	11	0		
November 2031	97	0	0	0	0	100	39	0	0	0	100	80	80	80	12	168	168	168	11	0		
November 2032	74	0	0	0	0	100	24	0	0	0	100	63	63	63	8	175	175	175	11	0		
November 2033	50	0	0	0	0	100	10	0	0	0	100	49	49	49	5	182	182	182	11	0		
November 2034	25	0	0	0	0	100	0	0	0	0	100	39	39	39	4	189	189	189	11	0		
November 2035	0	0	0	0	0	100	0	0	0	0	100	30	30	30	2	197	197	197	11	0		
November 2036	0	0	0	0	0	100	0	0	0	0	100	23	23	23	2	205	205	205	11	0		
November 2037	0	0	0	0	0	100	0	0	0	0	100	18	18	18	1	214	214	214	11	0		
November 2038	0	0	0	0	0	100	0	0	0	0	100	13	13	13	1	222	222	222	11	0		
November 2039	0	0	0	0	0	100	0	0	0	0	100	10	10	10	0	231	231	231	11	0		
November 2040	0	0	0	0	0	100	0	0	0	0	100	7	7	7	0	241	241	241	11	0		
November 2041	0	0	0	0	0	100	0	0	0	0	100	5	5	5	0	251	251	251	11	0		
November 2042	0	0	0	0	0	100	0	0	0	0	100	4	4	4	0	261	261	261	11	0		
November 2043	0	0	0	0	0	100	0	0	0	0	85	3	3	3	0	271	271	271	11	0		
November 2044	0	0	0	0	0	100	0	0	0	0	20	2	2	2	0	282	282	282	11	0		
November 2045	0	0	0	0	0	61	0	0	0	0	1	1	1	1	0	294	294	294	11	0		
November 2046	0	0	0	0	0	6	0	0	0	0	1	1	1	1	0	306	306	306	11	0		
November 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	318	318	318	11	0		
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average																						
Life (years)	15.0	12.5	12.5	12.5	8.2	27.2	12.1	2.7	2.7	1.7	25.6	16.0	16.0	16.0	10.1	30.0	29.6	29.4	8.8	2.0		

Security Group 9 PSA Prepayment Assumption Rates

			Class QZ	:				Class VM	I .				Class ZM	I	
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
November 2019	104	104	104	104	104	94	94	94	94	94	104	104	104	104	104
November 2020	108	108	108	108	0	88	88	88	88	88	108	108	108	108	108
November 2021	113	113	113	113	0	81	81	81	81	81	113	113	113	113	113
November 2022	117	117	117	117	0	74	74	74	74	74	117	117	117	117	117
November 2023	122	122	122	122	0	67	67	67	67	67	122	122	122	122	122
November 2024	127	127	127	127	0	60	60	60	60	60	127	127	127	127	127
November 2025	132	132	132	8	0	52	52	52	52	52	132	132	132	132	132
November 2026	138	138	138	8	0	44	44	44	44	0	138	138	138	138	138
November 2027	143	143	143	8	0	36	36	36	36	0	143	143	143	143	114
November 2028	149	149	149	8	0	27	27	27	27	0	149	149	149	149	77
November 2029	155	155	155	8	0	18	18	18	18	0	155	155	155	155	52
November 2030	161	161	161	8	0	8	8	8	8	0	161	161	161	161	35
November 2031	168	168	168	8	0	0	0	0	0	0	168	158	158	158	24
November 2032	175	175	175	8	0	0	0	0	0	0	175	124	124	124	16
November 2033	182	182	182	8	0	0	0	0	0	0	182	97	97	97	11
November 2034	189	189	189	8	0	0	0	0	0	0	189	76	76	76	7
November 2035	197	197	197	8	0	0	0	0	0	0	197	59	59	59	5
November 2036	205	205	205	8	0	0	0	0	0	0	197	45	45	45	3
November 2037	214	214	214	8	0	0	0	0	0	0	197	35	35	35	2
November 2038	222	222	222	8	0	0	0	0	0	0	197	26	26	26	1
November 2039	231	231	231	8	0	0	0	0	0	0	197	20	20	20	1
November 2040	241	241	241	8	0	0	0	0	0	0	197	15	15	15	1
November 2041	251	251	251	8	0	0	0	0	0	0	197	11	11	11	0
November 2042	261	261	261	8	0	0	0	0	0	0	197	8	8	8	0
November 2043	271	271	271	8	0	0	0	0	0	0	168	5	5	5	0
November 2044	282	282	282	8	0	0	0	0	0	0	39	3	3	3	0
November 2045	294	294	294	8	0	0	0	0	0	0	2	2	2	2	0
November 2046	306	306	306	8	0	0	0	0	0	0	1	1	1	1	0
November 2047	318	318	318	8	0	0	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	30.0	29.6	29.3	8.3	1.6	7.0	7.0	7.0	7.0	5.8	25.6	16.6	16.6	16.6	11.0

Security Group 10 PSA Prepayment Assumption Rates

	C	lasses Da	A, DB, D OH and D		G,			Class DI					Class DT		
Distribution Date	0%	100%	200%	300%	400%	0%	100%	200%	300%	400%	0%	100%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	98	94	90	86	82	100	100	100	100	100	99	95	92	89	86
November 2020	96	85	75	65	56	100	100	100	100	100	97	88	81	73	66
November 2021	94	76	60	46	34	100	100	100	100	100	96	82	70	59	49
November 2022	92	67	48	31	17	100	100	100	100	100	94	75	60	47	37
November 2023	90	59	37	19	5	100	100	100	100	100	92	69	52	38	27
November 2024	88	52	27	9	0	100	100	100	100	86	91	63	44	30	20
November 2025	85	45	19	1	0	100	100	100	100	64	89	58	38	24	15
November 2026	83	39	12	0	0	100	100	100	82	47	87	53	33	19	11
November 2027	80	32	6	0	0	100	100	100	65	35	85	48	28	15	8
November 2028	77	27	0	0	0	100	100	100	52	25	83	44	24	12	6
November 2029	74	21	0	0	0	100	100	85	41	19	80	40	20	10	4
November 2030	71	17	0	0	0	100	100	72	32	14	78	36	17	8	3
November 2031	67	12	0	0	0	100	100	61	26	10	75	33	14	6	2
November 2032	64	8	0	0	0	100	100	51	20	7	72	29	12	5	2
November 2033	60	4	0	0	0	100	100	43	16	5	69	26	10	4	1
November 2034	56	0	0	0	0	100	99	36	12	4	66	23	9	3	1
November 2035	52	0	0	0	0	100	88	30	9	3	63	21	7	2	1
November 2036	47	0	0	0	0	100	77	25	7	2	60	18	6	2	0
November 2037	43	0	0	0	0	100	68	20	5	1	56	16	5	1	0
November 2038	38	0	0	0	0	100	58	16	4	1	52	14	4	1	0
November 2039	32	0	0	0	0	100	50	13	3	1	48	12	3	1	0
November 2040	27	0	0	0	0	100	42	10	2	0	44	10	2	1	0
November 2041	21	0	0	0	0	100	35	8	2	0	40	8	2	0	0
November 2042	15	0	0	0	0	100	28	6	1	0	35	7	1	0	0
November 2043	8	0	0	0	0	100	21	4	1	0	30	5	1	0	0
November 2044	1	0	0	0	0	100	16	3	0	0	24	4	1	0	0
November 2045	0	0	0	0	0	80	10	2	0	0	19	2	0	0	0
November 2046	0	0	0	0	0	55	5	1	0	0	13	1	0	0	0
November 2047	0	0	0	0	0	28	0	0	0	0	7	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	16.1	6.9	4.2	3.1	2.4	28.2	21.5	15.4	11.3	8.8	19.0	10.3	6.9	5.0	3.9

Security Group 10 PSA Prepayment Assumption Rates

			Class DV					Class DZ		
Distribution Date	0%	100%	200%	300%	400%	0%	100%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2019	93	93	93	93	93	104	104	104	104	104
November 2020	85	85	85	85	85	108	108	108	108	108
November 2021	77	77	77	77	77	113	113	113	113	113
November 2022	69	69	69	69	69	117	117	117	117	117
November 2023	61	61	61	61	61	122	122	122	122	122
November 2024	52	52	52	52	12	127	127	127	127	127
November 2025	42	42	42	42	0	132	132	132	132	99
November 2026	33	33	33	0	0	138	138	138	128	73
November 2027	23	23	23	0	0	143	143	143	102	54
November 2028	12	12	12	0	0	149	149	149	81	40
November 2029	1	1	0	0	0	155	155	133	64	29
November 2030	0	0	0	0	0	156	156	113	51	21
November 2031	0	0	0	0	0	156	156	95	40	16
November 2032	0	0	0	0	0	156	156	80	31	11
November 2033	0	0	0	0	0	156	156	67	24	8
November 2034	0	0	0	0	0	156	155	56	19	6
November 2035	0	0	0	0	0	156	137	47	15	4
November 2036	0	0	0	0	0	156	121	38	11	3
November 2037	0	0	0	0	0	156	105	31	9	2
November 2038	0	0	0	0	0	156	91	25	6	1
November 2039	0	0	0	0	0	156	78	20	5	1
November 2040	0	0	0	0	0	156	65	16	4	1
November 2041	0	0	0	0	0	156	54	12	3	0
November 2042	0	0	0	0	0	156	43	9	2	0
November 2043	0	0	0	0	0	156	33	7	1	0
November 2044	0	0	0	0	0	156	24	5	1	0
November 2045	0	0	0	0	0	124	16	3	0	0
November 2046	0	0	0	0	0	85	8	1	0	0
November 2047	0	0	0	0	0	44	1	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	6.0	6.0	5.9	5.3	4.5	28.2	21.5	15.6	11.9	9.4

Security Group 11 PSA Prepayment Assumption Rates

			Class QI					Class QI				-	Class QM	í	
Distribution Date	0%	184%	250%	302%	500%	0%	184%	250%	302%	500%	0%	184%	250%	302%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	99	96	96	96	96	100	100	100	100	100	100	100	93	87	66
November 2020	98	90	90	90	90	100	100	100	100	100	100	100	78	61	0
November 2021	96	82	82	82	74	100	100	100	100	100	100	100	62	34	0
November 2022	95	75	75	75	63	100	100	100	100	100	100	100	51	16	0
November 2023	93	69	69	69	56	100	100	100	100	100	100	100	44	5	0
November 2024	92	63	63	63	45	100	100	100	100	100	100	100	40	1	0
November 2025	90	59	59	59	18	100	100	100	100	100	100	100	39	0	0
November 2026	89	52	52	52	0	100	100	100	100	99	100	93	33	0	0
November 2027	87	30	30	30	0	100	100	100	100	67	100	63	4	0	0
November 2028	85	14	14	14	0	100	100	100	100	46	100	36	0	0	0
November 2029	83	1	1	1	Ŏ	100	100	100	100	31	100	13	Ŏ	Ŏ	Õ
November 2030	81	0	0	0	0	100	78	78	78	21	100	0	0	0	0
November 2031	79	0	Õ	0	0	100	59	59	59	14	100	Õ	Õ	Õ	Õ
November 2032	77	Ŏ	Ŏ	Ŏ	Ŏ	100	45	45	45	9	100	Ŏ	Õ	Õ	Ŏ
November 2033	75	0	0	0	0	100	34	34	34	6	100	0	0	0	0
November 2034	73	0	0	0	0	100	25	25	25	4	100	0	0	0	0
November 2035	70	Ŏ	Ŏ	Ŏ	Ŏ	100	19	19	19	3	100	Ŏ	Õ	Õ	Ŏ
November 2036	68	0	0	0	0	100	14	14	14	2	100	0	0	0	0
November 2037	65	0	Õ	0	0	100	10	10	10	1	100	0	Õ	Õ	Õ
November 2038	41	Ŏ	Ŏ	Ŏ	Ŏ	100	7	7	7	1	100	Ŏ	Õ	Õ	Ŏ
November 2039	5	0	0	0	0	100	5	5	5	0	100	0	0	0	0
November 2040	0	0	0	0	0	18	4	4	4	0	100	0	Õ	Õ	Õ
November 2041	Ö	Ŏ	Ŏ	Ŏ	Ŏ	3	3	3	3	Ŏ	80	Ŏ	Õ	Õ	Ŏ
November 2042	0	0	0	0	0	2	2	2	2	0	53	0	0	0	0
November 2043	0	0	0	0	0	1	1	1	1	0	24	0	0	0	0
November 2044	Ö	Ŏ	Ŏ	Ŏ	Ŏ	1	1	1	1	Ŏ	0	Ŏ	Õ	Õ	Õ
November 2045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2046	0	0	0	0	0	Õ	0	0	0	0	Õ	0	Õ	Õ	Õ
November 2047	0	Õ	Õ	Õ	Ö	Õ	Õ	Õ	Ŏ	Õ	Õ	Õ	Õ	Õ	Õ
November 2048	Ő	Ő	Ő	ő	Ő	0	Ő	Ő	Ő	Õ	Ŏ	ő	ő	ő	ő
Weighted Average											~		~	~	~
Life (years)	16.9	6.8	6.8	6.8	4.9	21.8	14.6	14.6	14.6	10.5	24.1	9.6	5.0	2.6	1.2

Security Group 12 PSA Prepayment Assumption Rates

			Class QG	ì				Class QN	V				Class QY	7	
Distribution Date	0%	184%	250%	302%	500%	0%	184%	250%	302%	500%	0%	184%	250%	302%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	99	96	96	96	96	100	100	100	100	100	100	100	100	100	100
November 2020	97	89	89	89	86	100	100	100	100	0	100	100	100	100	100
November 2021	96	83	83	83	74	100	100	100	53	0	100	100	100	100	100
November 2022	94	77	77	77	66	100	100	100	20	0	100	100	100	100	100
November 2023	93	72	72	72	60	100	100	99	4	0	100	100	100	100	100
November 2024	91	67	67	67	37	100	100	97	1	0	100	100	100	100	100
November 2025	90	63	63	63	19	100	96	94	1	0	100	100	100	100	100
November 2026	88	60	60	60	7	100	90	88	1	0	100	100	100	100	100
November 2027	86	44	44	44	0	100	49	48	1	0	100	100	100	100	82
November 2028	84	31	31	31	0	100	1	1	1	0	100	100	100	100	1
November 2029	82	21	21	21	0	100	1	1	1	0	100	100	100	100	0
November 2030	80	13	13	13	0	100	1	1	1	0	100	100	100	100	0
November 2031	78	6	6	6	0	100	1	1	1	0	100	100	100	100	0
November 2032	76	1	1	1	0	100	1	1	1	0	100	100	100	100	0
November 2033	74	0	0	0	0	100	1	1	0	0	100	46	46	46	0
November 2034	72	0	0	0	0	100	0	0	0	0	100	0	0	0	0
November 2035	69	0	0	0	0	100	0	0	0	0	100	0	0	0	0
November 2036	66	0	0	0	0	100	0	0	0	0	100	0	0	0	0
November 2037	43	0	0	0	0	100	0	0	0	0	100	0	0	0	0
November 2038	19	0	0	0	0	100	0	0	0	0	100	0	0	0	0
November 2039	0	0	0	0	0	100	0	0	0	0	12	0	0	0	0
November 2040	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0
November 2041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	16.3	7.7	7.7	7.7	4.9	21.5	9.0	8.9	3.4	1.3	20.9	15.0	15.0	15.0	9.4

Security Groups 11 and 12 PSA Prepayment Assumption Rates

			Class QH					Class QP		
Distribution Date	0%	184%	250%	302%	500%	0%	184%	250%	302%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	95	90	74	99	96	96	96	96
November 2020	100	100	83	71	0	97	89	89	89	88
November 2021	100	100	71	38	0	96	82	82	82	74
November 2022	100	100	63	17	0	95	76	76	76	65
November 2023	100	100	57	5	0	93	70	70	70	58
November 2024	100	100	54	1	0	92	65	65	65	41
November 2025	100	99	52	0	0	90	61	61	61	19
November 2026	100	92	46	0	0	88	56	56	56	3
November 2027	100	60	15	0	0	87	37	37	37	0
November 2028	100	28	0	0	0	85	22	22	22	0
November 2029	100	10	0	0	0	83	11	11	11	0
November 2030	100	0	0	0	0	81	6	6	6	0
November 2031	100	0	0	0	0	79	3	3	3	0
November 2032	100	0	0	0	0	77	0	0	0	0
November 2033	100	0	0	0	0	74	0	0	0	0
November 2034	100	0	0	0	0	72	0	0	0	0
November 2035	100	0	0	0	0	70	0	0	0	0
November 2036	100	0	0	0	0	67	0	0	0	0
November 2037	100	0	0	0	0	55	0	0	0	0
November 2038	100	0	0	0	0	31	0	0	0	0
November 2039	100	0	0	0	0	3	0	0	0	0
November 2040	80	0	0	0	0	0	0	0	0	0
November 2041	61	0	0	0	0	0	0	0	0	0
November 2042	40	0	0	0	0	0	0	0	0	0
November 2043	18	0	0	0	0	0	0	0	0	0
November 2044	0	0	0	0	0	0	0	0	0	0
November 2045	0	0	0	0	0	0	0	0	0	0
November 2046	0	0	0	0	0	0	0	0	0	0
November 2047	0	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	23.5	9.4	5.9	2.7	1.2	16.6	7.2	7.2	7.2	4.9
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Security Group 13 PSA Prepayment Assumption Rates

	C	lasses (	C, CA, C	D and	CI		Class	es CF a	nd CS			(	Class CJ				(	Class CL		
Distribution Date	0%	175%	210%	275%	500%	0%	175%	210%	275%	500%	0%	175%	210%	275%	500%	0%	175%	210%	275%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	96	88	60	99	95	95	93	89	100	100	100	100	100	99	94	94	94	94
November 2020	100	100	87	63	0	98	87	85	81	69	100	100	100	100	100	97	84	84	84	81
November 2021	100	100	77	37	0	96	77	73	67	48	100	100	100	100	100	96	71	71	71	54
November 2022	100	100	70	19	0	95	67	63	55	33	100	100	100	100	100	94	59	59	59	35
November 2023	100	100	65	8	0	94	59	54	45	23	100	100	100	100	100	92	49	49	49	23
November 2024	100	100	62	2	0	92	52	46	37	15	100	100	100	100	100	90	40	40	40	14
November 2025	100	100	61	0	0	90	46	40	30	11	100	100	100	100	73	88	32	32	32	8
November 2026	100	99	60	0	0	89	40	34	25	7	100	100	100	100	50	86	25	25	25	4
November 2027	100	96	57	0	0	87	35	29	20	5	100	100	100	100	34	84	20	20	20	1
November 2028	100	91	53	0	0	85	30	25	16	3	100	100	100	100	23	81	15	15	15	0
November 2029	100	85	49	0	0	83	26	21	13	2	100	91	91	91	16	78	11	11	11	0
November 2030	100	79	45	0	0	80	23	18	11	2	100	73	73	73	11	75	8	8	8	0
November 2031	100	72	41	0	0	78	20	15	9	1	100	59	59	59	7	72	5	5	5	0
November 2032	100	65	36	0	0	75	17	13	7	1	100	48	48	48	5	69	3	3	3	0
November 2033	100	59	32	0	0	73	15	10	6	0	100	38	38	38	3	66	1	1	1	0
November 2034	100	52	28	0	0	70	13	9	4	0	100	30	30	30	2	62	0	0	0	0
November 2035	100	46	24	0	0	66	11	7	4	0	100	24	24	24	1	58	0	0	0	0
November 2036	100	40	21	0	0	63	9	6	3	0	100	19	19	19	1	54	0	0	0	0
November 2037	100	35	18	0	0	59	8	5	2	0	100	15	15	15	1	49	0	0	0	0
November 2038	100	30	15	0	0	56	6	4	2	0	100	12	12	12	0	45	0	0	0	0
November 2039	100	25	12	0	0	52	5	3	1	0	100	9	9	9	0	40	0	0	0	0
November 2040	100	21	10	0	0	47	4	3	1	0	100	7	7	7	0	34	0	0	0	0
November 2041	100	17	8	0	0	43	3	2	1	0	100	5	5	5	0	28	0	0	0	0
November 2042	100	14	6	0	0	38	3	2	1	0	100	4	4	4	0	22	0	0	0	0
November 2043	100	10	5	0	0	32	2	1	0	0	100	3	3	3	0	16	0	0	0	0
November 2044	100	8	4	0	0	27	1	1	0	0	77	2	2	2	0	8	0	0	0	0
November 2045	100	5	2	0	0	21	1	1	0	0	35	1	1	1	0	1	0	0	0	0
November 2046	91	3	1	0	0	14	1	0	0	0	1	1	1	1	0	0	0	0	0	0
November 2047	47	1	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	28.9	17.0	11.0	2.7	1.1	19.6	8.1	7.1	5.8	3.6	26.7	14.9	14.9	14.9	8.8	17.4	5.7	5.7	5.7	3.6

PSA Prepayment Assumption Rates	
Cl CN	

						P5A I	терауш	ent Assu	mpuon	Rates					
			Class CM	[				Class CN	Ī				Class CP		
Distribution Date	0%	175%	210%	275%	500%	0%	175%	210%	275%	500%	0%	175%	210%	275%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	100	100	100	100	100	100	100	100	98	93	93	93	93
November 2020	100	100	100	100	100	100	100	100	100	100	97	81	81	81	78
November 2021	100	100	100	100	100	100	100	100	100	100	95	67	67	67	47
November 2022	100	100	100	100	100	100	100	100	100	100	93	53	53	53	26
November 2023	100	100	100	100	100	100	100	100	100	100	91	42	42	42	11
November 2024	100	100	100	100	100	100	100	100	100	100	89	31	31	31	1
November 2025	100	100	100	100	61	100	100	100	100	100	86	22	22	22	0
November 2026	100	100	100	100	28	100	100	100	100	100	84	14	14	14	0
November 2027	100	100	100	100	5	100	100	100	100	100	81	8	8	8	0
November 2028	100	100	100	100	0	100	100	100	100	77	78	2	2	2	0
November 2029	100	87	87	87	0	100	100	100	100	52	75	0	0	0	0
November 2030	100	62	62	62	0	100	100	100	100	35	72	0	0	0	0
November 2031	100	41	41	41	0	100	100	100	100	24	68	0	0	0	0
November 2032	100	25	25	25	0	100	100	100	100	16	65	0	0	0	0
November 2033	100	11	11	11	0	100	100	100	100	11	61	0	0	0	0
November 2034	100	0	0	0	0	100	100	100	100	7	57	0	0	0	0
November 2035	100	0	0	0	0	100	80	80	80	5	52	0	0	0	0
November 2036	100	0	0	0	0	100	63	63	63	3	47	0	0	0	0
November 2037	100	0	0	0	0	100	49	49	49	2	42	0	0	0	0
November 2038	100	0	0	0	0	100	38	38	38	1	37	0	0	0	0
November 2039	100	0	0	0	0	100	29	29	29	1	31	0	0	0	0
November 2040	100	0	0	0	0	100	22	22	22	1	25	0	0	0	0
November 2041	100	0	0	0	0	100	17	17	17	0	18	0	0	0	0
November 2042	100	0	0	0	0	100	12	12	12	0	11	0	0	0	0
November 2043	100	0	0	0	0	100	9	9	9	0	3	0	0	0	0
November 2044	67	0	0	0	0	100	6	6	6	0	0	0	0	0	0
November 2045	7	0	0	0	0	100	4	4	4	0	0	0	0	0	0
November 2046	0	0	0	0	0	2	2	2	2	0	0	0	0	0	0
November 2047	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	26.3	12.8	12.8	12.8	7.4	27.5	19.8	19.8	19.8	11.9	16.1	4.7	4.7	4.7	3.1

Security Group 14 PSA Prepayment Assumption Rates

			Class I	Г				Class	JU				Class '	П	
Distribution Date	0%	250%	496%	750%	1,000%	0%	250%	496%	750%	1,000%	0%	250%	496%	750%	1,000%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	100	100	100	99	87	75	63	51	98	78	59	39	19
November 2020	100	100	100	86	51	97	73	52	35	21	95	55	21	0	0
November 2021	100	100	90	47	20	96	61	36	19	8	93	35	0	0	0
November 2022	100	100	62	25	8	94	51	25	10	3	90	18	0	0	0
November 2023	100	100	43	14	3	92	42	17	5	1	87	4	0	0	0
November 2024	100	88	30	7	1	90	35	12	3	0	84	0	0	0	0
November 2025	100	73	20	4	0	88	29	8	2	0	80	0	0	0	0
November 2026	100	61	14	2	0	86	24	6	1	0	77	0	0	0	0
November 2027	100	50	10	1	0	84	20	4	0	0	73	0	0	0	0
November 2028	100	42	7	1	0	82	17	3	0	0	69	0	0	0	0
November 2029	100	34	4	0	0	79	14	2	0	0	65	0	0	0	0
November 2030	100	28	3	0	0	76	11	1	0	0	61	0	0	0	0
November 2031	100	23	2	0	0	73	9	1	0	0	56	0	0	0	0
November 2032	100	19	1	0	0	70	8	1	0	0	51	0	0	0	0
November 2033	100	15	1	0	0	67	6	0	0	0	45	0	0	0	0
November 2034	100	12	1	0	0	64	5	0	0	0	40	0	0	0	0
November 2035	100	10	0	0	0	60	4	0	0	0	34	0	0	0	0
November 2036	100	8	0	0	0	56	3	0	0	0	27	0	0	0	0
November 2037	100	6	0	0	0	52	2	0	0	0	21	0	0	0	0
November 2038	100	5	0	0	0	48	2	0	0	0	13	0	0	0	0
November 2039	100	4	0	0	0	44	1	0	0	0	6	0	0	0	0
November 2040	97	3	0	0	0	39	1	0	0	0	0	0	0	0	0
November 2041	84	2	0	0	0	34	1	0	0	0	0	0	0	0	0
November 2042	70	1	0	0	0	28	1	0	0	0	0	0	0	0	0
November 2043	56	1	0	0	0	22	0	0	0	0	0	0	0	0	0
November 2044	40	1	0	0	0	16	0	0	0	0	0	0	0	0	0
November 2045	24	0	0	0	0	10	0	0	0	0	0	0	0	0	0
November 2046	7	0	0	0	0	3	0	0	0	0	0	0	0	0	0
November 2047	Ó	Õ	Õ	Ŏ	Ŏ	ő	Õ	Õ	Ŏ	Õ	Ŏ	Õ	Õ	Õ	Ŏ
November 2048	Ö	0	Õ	Õ	0	0	Õ	0	Õ	Õ	0	Õ	Õ	Õ	Õ
Weighted Average															
Life (years)	25.3	10.4	5.4	3.4	2.4	18.0	5.6	2.9	1.9	1.3	13.2	2.4	1.3	0.9	0.6

Security Group 15 PSA Prepayment Assumption Rates

		Classes FQ,	QA, QB, QC,	QT and SQ	
Distribution Date	0%	100%	250%	400%	500%
Initial Percent	100	100	100	100	100
November 2019	99	97	94	91	89
November 2020	97	91	82	74	69
November 2021	96	84	69	55	47
November 2022	95	78	57	41	33
November 2023	93	71	48	31	22
November 2024	91	66	40	23	15
November 2025	90	60	33	17	10
November 2026	88	55	27	13	7
November 2027	86	51	23	9	5
November 2028	84	46	19	7	5 3 2
November 2029	81	42	15	5	2
November 2030	79	38	13	4	2
November 2031	77	35	10	3	1
November 2032	74	31	8	2	1
November 2033	71	28	7	1	0
November 2034	68	25	6	1	0
November 2035	65	22	4	1	0
November 2036	61	20	4	1	0
November 2037	58	17	3	0	0
November 2038	54	15	2	0	0
November 2039	50	13	2	0	0
November 2040	46	11	1	0	0
November 2041	41	9	1	0	0
November 2042	36	8	1	0	0
November 2043	31	6	1	0	0
November 2044	26	5	0	0	0
November 2045	20	3	0	0	0
November 2046	14	2	0	0	0
November 2047	7	1	Ŏ	Ŏ	Ŏ
November 2048	Ó	0	Õ	Õ	0
Weighted Average		_	Ţ.	-	
Life (years)	19.3	10.8	6.2	4.3	3.6

Security Group 16 PSA Prepayment Assumption Rates

		(	lass G	1			(	Class G	L			(	Class GV	7			(	Class GZ	Z	
Distribution Date	0%	100%	200%	300%	400%	0%	100%	200%	300%	400%	0%	100%	200%	300%	400%	0%	100%	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
November 2019	98	93	88	83	78	100	100	100	100	100	93	93	93	93	93	104	104	104	104	104
November 2020	96	84	72	62	52	100	100	100	100	100	85	85	85	85	85	108	108	108	108	108
November 2021	95	75	59	44	31	100	100	100	100	100	77	77	77	77	77	113	113	113	113	113
November 2022	93	67	47	30	16	100	100	100	100	100	69	69	69	69	69	117	117	117	117	117
November 2023	90	59	36	18	5	100	100	100	100	100	61	61	61	61	61	122	122	122	122	122
November 2024	88	52	27	9	0	100	100	100	100	87	52	52	52	52	15	127	127	127	127	127
November 2025	86	45	19	2	0	100	100	100	100	64	42	42	42	42	0	132	132	132	132	100
November 2026	83	39	12	0	0	100	100	100	85	48	33	33	33	0	0	138	138	138	132	74
November 2027	80	33	6	0	0	100	100	100	67	35	23	23	23	0	0	143	143	143	105	55
November 2028	78	27	1	0	0	100	100	100	53	26	12	12	12	0	0	149	149	149	83	40
November 2029	75	22	0	0	0	100	100	89	42	19	1	1	0	0	0	155	155	139	66	29
November 2030	72	17	0	0	0	100	100	75	33	14	0	0	0	0	0	156	156	118	52	22
November 2031	68	13	0	0	0	100	100	64	26	10	0	0	0	0	0	156	156	99	41	16
November 2032	65	9	0	0	0	100	100	53	20	7	0	0	0	0	0	156	156	83	32	11
November 2033	61	5	0	0	0	100	100	45	16	5	0	0	0	0	0	156	156	70	25	8
November 2034	57	1	0	0	0	100	100	37	12	4	0	0	0	0	0	156	156	58	19	6
November 2035	53	0	0	0	0	100	92	31	10	3	0	0	0	0	0	156	144	48	15	4
November 2036	49	0	0	0	0	100	81	25	7	2	0	0	0	0	0	156	126	39	11	3
November 2037	44	0	0	0	0	100	70	21	6	1	0	0	0	0	0	156	110	32	9	2
November 2038	39	0	0	0	0	100	61	17	4	1	0	0	0	0	0	156	94	26	6	1
November 2039	34	0	0	0	0	100	51	13	3	1	0	0	0	0	0	156	80	21	5	1
November 2040	28	0	0	0	0	100	43	10	2	0	0	0	0	0	0	156	67	16	4	1
November 2041	23	0	0	0	0	100	35	8	2	0	0	0	0	0	0	156	55	12	3	0
November 2042	17	0	0	0	0	100	28	6	1	0	0	0	0	0	0	156	43	9	2	0
November 2043	10	0	0	0	0	100	21	4	1	0	0	0	0	0	0	156	33	7	1	0
November 2044	3	0	0	0	0	100	15	3	0	0	0	0	0	0	0	156	23	4	1	0
November 2045	0	0	0	0	0	86	9	2	0	0	0	0	0	0	0	134	14	2	0	0
November 2046	0	0	0	0	0	59	4	1	0	0	0	0	0	0	0	92	6	1	0	0
November 2047	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	47	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	16.3	6.9	4.2	3.0	2.3	28.3	21.6	15.5	11.4	8.8	6.0	6.0	6.0	5.3	4.5	28.3	21.6	15.7	12.0	9.4

Security Group 17 PSA Prepayment Assumption Rates

	Classe	s JA, JB,	JC, JD, J	E, JG, JI	and JK			Class Z					Class ZJ		_
Distribution Date	0%	175%	210%	375%	500%	0%	175%	210%	375%	500%	0%	175%	210%	375%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2019	97	93	93	93	93	104	104	104	104	104	104	104	102	90	81
November 2020	94	81	81	81	81	108	108	108	108	108	108	108	100	60	31
November 2021	91	67	67	67	61	113	113	113	113	113	113	113	97	27	0
November 2022	87	53	53	53	41	117	117	117	117	117	117	117	96	8	0
November 2023	84	41	41	41	26	122	122	122	122	122	122	122	97	1	0
November 2024	80	30	30	30	17	127	127	127	127	127	127	126	99	0	0
November 2025	76	21	21	21	10	132	132	132	132	132	132	125	96	0	0
November 2026	72	15	15	15	5	138	138	138	138	138	138	120	91	0	0
November 2027	67	10	10	10	2	143	143	143	143	143	143	113	85	0	0
November 2028	62	6	6	6	0	149	149	149	149	135	149	104	77	0	0
November 2029	58	3	3	3	0	155	155	155	155	92	155	95	69	0	0
November 2030	53	1	1	1	0	161	161	161	161	62	161	86	61	0	0
November 2031	47	0	0	0	0	168	138	138	138	42	168	77	54	0	0
November 2032	42	0	0	0	0	175	102	102	102	28	175	68	47	0	0
November 2033	36	0	0	0	0	182	76	76	76	19	182	59	40	0	0
November 2034	29	0	0	0	0	189	56	56	56	12	189	52	34	0	0
November 2035	23	0	0	0	0	197	41	41	41	8	197	45	29	0	0
November 2036	16	0	0	0	0	205	30	30	30	5	205	38	24	0	0
November 2037	9	0	0	0	0	214	22	22	22	4	214	32	20	0	0
November 2038	1	0	0	0	0	222	16	16	16	2	222	27	17	0	0
November 2039	0	0	0	0	0	26	11	11	11	1	231	22	13	0	0
November 2040	0	0	0	0	0	8	8	8	8	1	213	18	11	0	0
November 2041	0	0	0	0	0	5	5	5	5	1	191	15	9	0	0
November 2042	0	0	0	0	0	4	4	4	4	0	168	12	7	0	0
November 2043	0	0	0	0	0	2	2	2	2	0	144	9	5	0	0
November 2044	0	0	0	0	0	1	1	1	1	0	118	6	3	0	0
November 2045	0	0	0	0	0	1	1	1	1	0	91	4	2	0	0
November 2046	0	0	0	0	0	0	0	0	0	0	62	3	1	0	0
November 2047	0	0	0	0	0	0	0	0	0	0	32	1	1	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	11.7	4.7	4.7	4.7	3.9	20.8	15.7	15.7	15.7	12.3	25.9	15.5	13.9	2.4	1.6

Security Group 18 PSA Prepayment Assumption Rates

	Classes E, EB, EC, EG and EI				Class EA					
Distribution Date	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	94	88	64	99	94	94	94	94
November 2020	100	100	81	63	0	97	82	82	82	80
November 2021	100	100	67	35	0	96	67	67	67	52
November 2022	100	100	57	16	0	94	54	54	54	32
November 2023	100	100	50	6	0	92	43	43	43	19
November 2024	100	100	47	1	0	90	33	33	33	9
November 2025	100	100	46	0	0	88	24	24	24	3
November 2026	100	97	44	0	0	86	17	17	17	0
November 2027	100	93	41	0	0	84	11	11	11	0
November 2028	100	87	37	0	0	82	7	7	7	0
November 2029	100	80	34	0	0	79	3	3	3	0
November 2030	100	73	30	0	0	76	0	0	0	0
November 2031	100	66	27	0	0	73	0	0	0	0
November 2032	100	59	23	0	0	70	0	0	0	0
November 2033	100	52	20	0	0	66	0	0	0	0
November 2034	100	46	17	0	0	62	0	0	0	0
November 2035	100	40	15	0	0	58	0	0	0	0
November 2036	100	34	12	0	0	54	0	0	0	0
November 2037	100	29	10	0	0	49	0	0	0	0
November 2038	100	24	8	0	0	44	0	0	0	0
November 2039	100	20	7	0	0	39	0	0	0	0
November 2040	100	17	6	0	0	33	0	0	0	0
November 2041	100	13	4	Ŏ	Õ	27	Õ	Õ	Ŏ	Ŏ
November 2042	100	11	3	0	0	21	0	0	0	0
November 2043	100	8	2	0	Õ	13	0	0	Õ	0
November 2044	100	6	2	Ŏ	Ö	6	Ŏ	Ŏ	Ŏ	Ö
November 2045	100	4	1	0	0	0	0	0	0	0
November 2046	100	2	1	0	Õ	0	0	0	0	0
November 2047	54	1	0	Ŏ	ŏ	ŏ	ŏ	Ŏ	ŏ	ŏ
November 2048	0	0	0	0	Õ	Õ	0	0	Ö	0
Weighted Average	-	_	~	_	~		~	_	_	
Life (years)	29.1	16.1	8.4	2.6	1.2	17.3	4.9	4.9	4.9	3.4

PSA Prepayment Assumption Rates

	Class EL					Classes FE and SE				
Distribution Date	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2019	100	100	100	100	100	99	95	95	94	90
November 2020	100	100	100	100	100	98	86	84	81	71
November 2021	100	100	100	100	100	97	75	70	66	49
November 2022	100	100	100	100	100	95	65	59	53	34
November 2023	100	100	100	100	100	94	56	49	43	23
November 2024	100	100	100	100	100	93	49	41	34	16
November 2025	100	100	100	100	100	91	42	34	28	11
November 2026	100	100	100	100	84	89	36	28	22	8
November 2027	100	100	100	100	57	88	31	24	18	5
November 2028	100	100	100	100	39	86	27	20	14	4
November 2029	100	100	100	100	27	84	23	16	11	2
November 2030	100	100	100	100	18	82	19	13	9	2
November 2031	100	79	79	79	12	79	17	11	7	1
November 2032	100	63	63	63	8	77	14	9	6	1
November 2033	100	50	50	50	6	74	12	7	4	0
November 2034	100	39	39	39	4	71	10	6	3	0
November 2035	100	30	30	30	2	68	8	5	3	Õ
November 2036	100	24	24	24	2	65	7	4	2	0
November 2037	100	18	18	18	1	61	6	3	2	0
November 2038	100	14	14	14	ī	57	Š	2	1	Õ
November 2039	100	10	10	10	0	53	4	2	1	0
November 2040	100	8	8	8	Ö	49	3	1	1	0
November 2041	100	6	6	6	Ö	44	2	1	1	Õ
November 2042	100	4	4	4	0	39	2	1	0	0
November 2043	100	3	3	3	Õ	34	1	1	0	Õ
November 2044	100	2	2	2	Ö	28	1	0	Õ	Õ
November 2045	81	1	1	1	Õ	22	1	0	0	0
November 2046	6	1	1	1	ŏ	15	0	ő	ő	0
November 2047	ő	0	0	0	ŏ	8	ő	ő	0	ő
November 2048	Ő	Ő	ő	ő	ŏ	ő	ő	ő	ő	0
Weighted Average	~	~	9	9	~	· ·	~	9	,	9
Life (years)	27.4	16.0	16.0	16.0	10.1	19.9	7.5	6.4	5.6	3.7

#### **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 4, 11, 12 and 14 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 reduce the yield of the Inverse Floating Rate Classes. In addition, the Floating Rate Classes will not

necessarily 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

- 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.** 

# Sensitivity of Class SK to Prepayments Assumed Price 12.0%\*

	PSA Prepayment Assumption Rates						
LIBOR	150%	311%	550%	700%			
1.00%	38.0%	30.3%	18.6%	11.1%			
2.30%	25.3%	17.2%	4.7%	(3.3)%			
4.25%	6.3%	(2.6)%	(16.4)%	(25.5)%			
6.20% and above	**	**	**	神神			

#### **SECURITY GROUP 2**

# Sensitivity of Class SP to Prepayments Assumed Price 14.0%\*

	PSA Prepayment Assumption Rates						
LIBOR	100%	266%	450%	600%			
1.000%	32.4%	24.0%	14.5%	6.5%			
2.282%	21.9%	13.2%	3.2%	(5.3)%			
4.216%	5.9%	(3.3)%	(14.1)%	(23.4)%			
6.150% and above	**	**	**	**			

#### **SECURITY GROUP 3**

# Sensitivity of Class AI to Prepayments Assumed Price 31.0%\*

PSA Prepayment Assumption Rates							
200%	300%	400%	483%	600%			
14.2%	10.0%	4.8%	0.0%	(7.4)%			

# Sensitivity of Class IA to Prepayments Assumed Price 9.0%\*

# PSA Prepayment Assumption Rates 200% 300% 393% 400% 600% 35.7% 17.8% 0.2% (1.2)% (38.4)%

# Sensitivity of Class IK to Prepayments Assumed Price 18.5%\*

PSA Prepayment Assumption Rates								
200%	300%	400%	517%	600%				
7.2%	7.2%	7.2%	0.1%	(5.7)%				

<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 IW to Prepayments Assumed Price 17.8%\*

**PSA Prepayment Assumption Rates** 

200%	300%	400%	458%	600%
17.7%	11.0%	4.1%	0.0%	(10.4)%

# Sensitivity of Class SW to Prepayments Assumed Price 13.5%\*

PSA Prepayment Assumption Rates

LIBOR	200%	300%	400%	600%
1.00%	26.7%	19.9%	13.0%	(1.7)%
2.30%	16.0%	9.3%	2.5%	(12.0)%
4.25%	(0.1)%	(6.6)%	(13.3)%	(27.5)%
6.20% and above	**	**	**	**

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

**PSA Prepayment Assumption Rates** 

200%	300%	400%	565%	600%
11.8%	7.8%	7.8%	0.1%	(2.6)%

#### **SECURITY GROUP 5**

# Sensitivity of Class BI to Prepayments Assumed Price 17.0%\*

**PSA Prepayment Assumption Rates** 

150%	260%	300%	461%	600%
8.2%	8.2%	8.2%	0.0%	(8.4)%

# Sensitivity of Class BS to Prepayments Assumed Price 101.0%\*

**PSA Prepayment Assumption Rates** 

LIBOR	150%	260%	300%	600%			
1.0000%	16.0%	15.6%	15.3%	13.9%			
2.2810%	10.0%	9.8%	9.4%	8.3%			
3.3905%	4.9%	4.8%	4.5%	3.6%			
4.5000% and above		(0.2)%	(0.4)%	(1.1)%			

<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 KI to Prepayments Assumed Price 9.0%\*

#### **PSA Prepayment Assumption Rates**

250%	496%	620%	750%	1,000%
27.7%	9.0%	0.1%	(8.7)%	(23.8)%

#### **SECURITY GROUP 7**

# Sensitivity of Class HS to Prepayments Assumed Price 13.5%\*

	PSA Prepayment Assumption Rates			
LIBOR	150%	300%	450%	600%
1.00%	29.8%	19.6%	8.9%	(2.4)%
2.30%	19.1%	9.1%	(1.4)%	(12.6)%
4.25%	3.0%	(6.7)%	(16.9)%	(27.8)%
6.20% and above	**	**	**	**

#### **SECURITY GROUP 9**

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

#### **PSA Prepayment Assumption Rates**

150%	250%	300%	406%	500%
6.4%	6.4%	6.4%	0.0%	(6.8)%

## Sensitivity of Class MS to Prepayments Assumed Price 104.0%\*

	PSA Prepayment Assumption Rates			
LIBOR	150%	250%	300%	500%
1.00%	12.3%	11.9%	10.6%	7.7%
2.30%	8.4%	8.0%	6.8%	4.0%
3.75%	4.1%	3.8%	2.6%	0.0%
5.20% and above	(0.2)%	(0.4)%	(1.6)%	(4.0)%

#### **SECURITY GROUP 10**

# Sensitivity of Class DI to Prepayments Assumed Price 14.0%\*

#### **PSA Prepayment Assumption Rates**

100%	200%	250%	300%	400%
17.5%	6.3%	0.1%	(6.4)%	(19.6)%

<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.

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

# Sensitivity of Class CI to Prepayments Assumed Price 28.0%\*

#### **PSA Prepayment Assumption Rates**

175%	210%	248%	275%	500%
16.6%	10.2%	0.3%	(32.5)%	**

# Sensitivity of Class CS to Prepayments Assumed Price 17.0%\*

#### **PSA Prepayment Assumption Rates**

LIBOR	175%	210%	275%	500%
1.000%	21.3%	19.5%	15.9%	3.4%
2.294%	12.6%	10.6%	7.0%	(5.9)%
4.247%		(3.0)%	(6.8)%	(20.5)%
6.200% and above	**	**	**	**

#### **SECURITY GROUP 14**

# Sensitivity of Class IT to Prepayments Assumed Price 33.0%\*

#### **PSA Prepayment Assumption Rates**

250%	445%	496%	750%	1,000%
10.5%	0.0%	(3.2)%	(21.3)%	(42.8)%

# Sensitivity of Class TI to Prepayments Assumed Price 7.0%\*

#### **PSA Prepayment Assumption Rates**

250%	476%	496%	750%	1,000%
46.3%	0.0%	(4.2)%	(56.3)%	**

#### **SECURITY GROUP 15**

# Sensitivity of Class SQ to Prepayments Assumed Price 15.5%\*

## **PSA Prepayment Assumption Rates**

LIBOR	100%	250%	400%	500%
1.000%	28.1%	20.2%	12.1%	6.6%
2.300%	18.6%	10.4%	2.0%	(3.8)%
4.225%	4.1%	(4.4)%	(13.3)%	(19.4)%
6.150% and above	排排	**	**	神神

<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 JI to Prepayments Assumed Price 14.5%\*

#### **PSA Prepayment Assumption Rates**

175%	210%	375%	500%	539%
8.3%	8.3%	8.3%	2.2%	0.0%

#### **SECURITY GROUP 18**

#### Sensitivity of Class EI to Prepayments Assumed Price 30.0%\*

#### **PSA Prepayment Assumption Rates**

200%	250%	273%	300%	500%
16.9%	6.8%	0.0%	(34.2)%	**

## Sensitivity of Class SE to Prepayments Assumed Price 16.25%\*

#### **PSA Prepayment Assumption Rates**

LIBOR	200%	250%	300%	500%
1.000%	22.0%	19.4%	16.8%	6.0%
2.318%	12.6%	9.9%	7.1%	(4.1)%
4.259%		(4.5)%	(7.4)%	(19.4)%
6.200% and above		冰冰	水水	**

<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 K&L Gates LLP, the Trust will constitute a Double REMIC Series for United States federal income tax purposes. Separate REMIC elections will be made for the Pooling REMIC and the Issuing REMIC.

#### **Regular Securities**

The Regular Securities will be treated as debt instruments issued by the Issuing REMIC for United States federal income tax purposes. Income on the Regular Securities must be reported under an accrual method of accounting.

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

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.

The prepayment assumption that should be used in determining the rates of accrual of OID, if any, on the Regular Securities is 311% PSA in the case of the Group 1 Securities, 266% PSA in the case of the Group 2 Securities, 300% PSA in the case of the Group 3, 4 and 7 Securities, 260% PSA in the case of the Group 5 Securities, 496% PSA in the case of the Group 6 and 14 Securities, 210% PSA in the case of the Group 8, 13 and 17 Securities, 250% PSA in the case of the Group 9, 11, 12, 15 and 18 Securities and 200% PSA in the case of the Group 10 and 16 Securities (as described in "Yield, Maturity and Prepayment Considerations" in this Supplement). In the case of the Floating Rate and Inverse 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.

#### **Residual Securities**

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Pooling REMIC and the beneficial ownership of the Residual Interest in the Issuing REMIC. The Residual Securities, *i.e.*, the Class RR 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 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 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 non-publicly offered RIC) generally will not be eligible to deduct its allocable share of the Trust REMICs' 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.

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) November 1, 2018 on the Fixed Rate and Delay Classes and (2) November 20, 2018 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 K&L Gates LLP, Charlotte, North Carolina, and Marcell Solomon & Associates, P.C., Bowie, Maryland, and for the Trustee by Nixon Peabody LLP.

Available Combinations(1)

REMIC Securities	iies				MX Securities	ties		
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 2 Combination 1								
NV NZ VN	\$ 3,312,279 10,000,000 4,805,000	NB	\$18,117,279	SEQ	3.50%	FIX	38381AXQ4	November 2048
NA NZ NZ VN Security Group 3	\$65,747,000 3,312,279 10,000,000 4,805,000	Ľ Ž	\$83,864,279	PT	3.50%	FIX	38381AXR2	November 2048
Combination 5(6) WA	\$42,885,000	WB WC WD WI	\$42,885,000 42,885,000 42,885,000 7,797,272	PAC/AD PAC/AD PAC/AD NTL(PAC/AD)	3.75% 3.50 3.00 5.50	FIX FIX FIX FIX/IO	38381AXX0 38381AXT8 38381AXU5 38381AXV3	July 2048 July 2048 July 2048 July 2048
Combination 4  AI IA Security Groups 3 and 4 Combination 5(7)	\$ 5,485,460 8,228,191	IW	\$13,713,651	NTL(PT)	5.50%	FIX/10	38381AXW1	November 2048
XZ ZW ZW Security Group 5 Combination 6(6)	\$ 6,800,000	WZ	\$ 8,500,000	SC/PT/SUP	(5)	WAC/DLY/Z	38381AXX9	November 2048
BH	\$35,192,871	BG BI BP	\$35,192,871 4,399,108 35,192,871	PAC I NTL(PAC I) PAC I	3.75% 4.00 3.50	FIX FIX/10 FIX	38381AXY7 38381AXZ4 38381AYA8	November 2048 November 2048 November 2048

REMIC Securities	es				MX Securities	sa		
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 6 Combination 7								
KZ	\$ 6,338,000	KY	\$ 9,885,000	SEQ	4.00%	FIX	38381AYB6	November 2048
Security Groups 3 and 7	5,547,000							
Combination 8(/) HF	\$30,737,202	FW	\$70,737,202	PT	(5)	FLT	38381AYC4	November 2048
WF	40,000,000							
COIDINATION X() HB	\$15,368,602	MG	\$33,094,144	PT	3.50%	FIX	38381AYD2	November 2048
Security Group 9	17,723,342							
Combination 10	4	!	4	1	4			•
MV	\$ 2,048,000	MY	\$13,501,000	PAC I	4.00%	FIX	38381AYE0	November 2048
MV	4,601,000							
Sometime Court 10	0,00,7000							
Combination 11(6)								
DA	\$52,171,000	DB	\$52,171,000	SEQ	3.50%	FIX	38381AYF7	January 2045
		DC	52,171,000	SEQ	3.75	FIX	38381AYG5	January 2045
		DE	52,171,000	SEQ	3.80	FIX	38381AYH3	January 2045
		DC	52,171,000	SEQ	3.85	FIX	38381AYJ9	January 2045
		DH	26,085,500	SEQ	4.50	FIX ETV/IO	38381AYK6	January 2045
Combination 12		5	0,741,77		00.1	OI VJI I	10,000	January 2017
DA	\$52,171,000	DT	\$68,307,575	PT	4.00%	FIX	38381AYM2	November 2048
DV	5,792,000							
Combination 13	( ) ( ) ( ) ( )							
DV DZ	\$ 5,792,000 10,344,575	DI	\$16,136,575	SEQ	4.00%	FIX	38381AYN0	November 2048

REMIC Securities	ties				MX Securities	SS		
	Original Class Principal Balance or Class Notional	Related	Maximum Original Class Principal Balance or Class Notional	Principal	Interest	Interest	CUSIP	Final Distribution
Class	Balance	MX Class	Balance(2)	Type(3)	Rate	Type(3)	Number	Date(4)
Security Groups 11 and 12	12							
Combination $14(7)$								
QE	\$10,495,000	QP	\$20,000,000	SC/PAC	3.00%	FIX	38381AYP5	May 2048
9G	9,505,000							
Combination 15(7)								
QM	\$ 1,285,174	ÓН	\$ 1,688,773	SC/SUP	3.00%	FIX	38381AYQ3	May 2048
NÒ	403,599							
Security Group 13								
Combination 16(6)								
O	\$ 5,989,909	CA	\$ 5,989,909	SUP	3.00%	FIX	38381AYR1	November 2048
		CD	2,994,954	SUP	4.00	FIX	38381AYS9	November 2048
		CI	598,990	NTL(SUP)	5.00	FIX/IO	38381AYT7	November 2048
Combination 17								
CP	\$27,112,157	CL	\$31,052,773	PAC	3.50%	FIX	38381AYU4	April 2048
$_{ m CM}$	3,940,616							
Combination 18								
CM	\$ 3,940,616	Ü	\$ 5,649,376	PAC	3.50%	FIX	38381AYV2	November 2048
CN	1,708,760							
Security Group 15								
Combination 19								
FQ	\$26,819,120	QT	\$26,819,120	$_{ m PT}$	6.50%	FIX	38381AYW0	November 2048
Š	26,819,120							
Combination 20								
FQ	\$ 4,876,204	QB	\$58,514,444	PT	3.75%	FIX	38381AYX8	November 2048
ÓC	53,638,240							
SQ	4,876,204							
Combination 21								
FQ	\$10,727,649	QA	\$64,365,889	PT	4.00%	FIX	38381AYY6	November 2048
ÓC	53,638,240							
Š	10,727,649							

REMIC Securities	ities				MX Securities	ies		
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 16 Combination 22								
GV GZ	\$ 5,682,000 10,154,000	GL	\$15,836,000	SEQ	4.00%	FIX	38381AYZ3	November 2048
Security Group 17 Combination 23(6)								
JA	\$69,166,000	JB	\$69,166,000	PAC/AD	3.75%	FIX	38381AZA7	September 2047
		JC	69,166,000	PAC/AD	3.50	FIX	38381AZB5	September 2047
		Q(	69,166,000	PAC/AD	3.00	FIX	38381AZC3	September 2047
		Æ	69,166,000	PAC/AD	2.50	FIX	38381AZD1	September 2047
		JG	51,874,500	PAC/AD	4.50	FIX	38381AZE9	September 2047
		Ц	25,937,250	NTL(PAC/AD)	4.00	FIX/IO	38381AZF6	September 2047
		Ж	41,499,600	PAC/AD	5.00	FIX	38381AZG4	September 2047
<b>Security Group 18</b> Combination 24(6)								
Ы	\$ 3,726,985	EB	\$ 3,726,985	SUP	2.50%	FIX	38381AZH2	November 2048
		EC	3,726,985	SUP	3.00	FIX	38381AZJ8	November 2048
		EG	2,484,656	SUP	4.00	FIX	38381AZK5	November 2048
		EI	677,633	NTL(SUP)	5.50	FIX/IO	38381AZL3	November 2048

(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

The Interest Rate will be calculated as described under "Terms Sheet — Interest Rates" in this Supplement. (5) In the case of Combinations 3, 6, 11, 16, 23 and 24, various subcombinations are permitted. See "Description of the Securities — Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations.

(7) Derived from REMIC classes relating to separate Groups.

# Schedule II

# SCHEDULED PRINCIPAL BALANCES

Distribution Date	Classes WA and ZU (in the aggregate)	Class WP	Classes BD, BL and BM (in the aggregate)	Classes BH and BK (in the aggregate)
Initial Balance	\$43,316,000.00	\$7,014,264.00	\$2,530,000.00	\$35,388,335.00
December 2018	42,879,018.27	6,952,098.38	2,516,008.80	35,256,416.07
January 2019	42,420,916.30	6,887,120.87	2,499,731.30	35,112,936.52
February 2019	41,942,119.36	6,819,377.47	2,481,188.76	34,957,970.06
March 2019	41,443,079.41	6,748,916.96	2,460,406.33	34,791,599.34
April 2019	40,924,274.36	6,675,790.89	2,437,412.98	34,613,915.91
May 2019	40,386,207.26	6,600,053.51	2,412,241.58	34,425,020.07
June 2019	39,829,405.48	6,521,761.63	2,384,928.75	34,225,020.89
July 2019	39,254,419.81	6,440,974.65	2,355,514.86	34,014,036.04
August 2019	38,661,823.52	6,357,754.38	2,324,043.97	33,792,191.71
September 2019	38,052,211.33	6,272,164.99	2,290,563.74	33,559,622.51
October 2019	37,426,198.38	6,184,272.95	2,255,125.36	33,316,471.31
November 2019	36,784,419.12	6,094,146.88	2,217,783.49	33,062,889.13
December 2019	36,127,526.18	6,001,857.48	2,178,596.15	32,799,034.98
January 2020	35,456,189.16	5,907,477.44	2,137,624.60	32,525,075.69
February 2020	34,771,093.43	5,811,081.30	2,094,933.30	32,241,185.75
March 2020	34,072,938.87	5,712,745.36	2,050,589.70	31,947,547.14
April 2020	33,384,048.89	5,615,376.50	2,004,664.20	31,644,349.12
May 2020	32,704,292.95	5,518,963.60	1,957,229.99	31,331,788.04
June 2020	32,033,542.32	5,423,495.66	1,908,362.93	31,010,067.11
July 2020	31,371,670.00	5,328,961.79	1,858,141.40	30,679,396.21
August 2020	30,718,550.74	5,235,351.21	1,806,646.12	30,339,991.67
September 2020	30,074,061.01	5,142,653.25	1,753,960.08	29,992,075.97
October 2020	29,438,078.96	5,050,857.38	1,700,168.30	29,635,877.59
November 2020	28,810,484.39	4,959,953.15	1,645,357.72	29,271,630.67
December 2020	28,191,158.77	4,869,930.23	1,589,617.03	28,899,574.80
January 2021	27,579,985.16	4,780,778.40	1,535,111.34	28,530,683.92
February 2021	26,976,848.24	4,692,487.54	1,481,822.79	28,164,932.20
March 2021	26,381,634.26	4,605,047.65	1,429,733.69	27,802,294.04
April 2021	25,794,231.03	4,518,448.83	1,378,826.60	27,442,744.02
May 2021	25,214,527.86	4,432,681.26	1,329,084.29	27,086,256.94
June 2021	24,642,415.62	4,347,735.27	1,280,489.73	26,732,807.79
July 2021	24,077,786.65	4,263,601.25	1,233,026.12	26,382,371.76
August 2021	23,520,534.75	4,180,269.70	1,186,676.84	26,034,924.25
September 2021	22,970,555.18	4,097,731.23	1,141,425.52	25,690,440.84
October 2021	22,427,744.64	4,015,976.54	1,097,255.91	25,348,897.34
November 2021	21,892,001.24	3,934,996.44	1,054,152.07	25,010,269.70
December 2021	21,363,224.47	3,854,781.81	1,012,098.16	24,674,534.11
January 2022	20,841,315.20	3,775,323.64	971,078.60	24,341,666.92
February 2022	20,326,175.66	3,696,613.03	931,077.97	24,011,644.69
March 2022	19,817,709.42	3,618,641.15	892,081.06	23,684,444.16
April 2022	19,315,821.34	3,541,399.27	854,072.83	23,360,042.25
May 2022	18,820,417.62	3,464,878.75	817,038.44	23,038,416.07
June 2022	18,331,405.72	3,389,071.04	780,963.24	22,719,542.92

Distribution Date	Classes WA and ZU (in the aggregate)	Class WP	Classes BD, BL and BM (in the aggregate)	Classes BH and BK (in the aggregate)
July 2022	\$17,848,694.35	\$3,313,967.67	\$ 745,832.77	\$22,403,400.26
August 2022	17,372,193.51	3,239,560.29	711,632.71	22,089,965.76
September 2022	16,901,814.40	3,165,840.60	678,348.97	21,779,217.24
October 2022	16,440,118.71	3,092,800.40	645,967.59	21,471,132.73
November 2022	15,990,882.66	3,020,431.58	614,474.83	21,165,690.40
December 2022	15,553,773.05	2,948,726.11	583,857.09	20,862,868.62
January 2023	15,128,465.49	2,877,740.16	554,100.94	20,562,645.93
February 2023	14,714,644.23	2,808,435.78	525,193.15	20,265,001.03
March 2023	14,312,001.92	2,740,773.61	497,120.63	19,969,912.80
April 2023	13,920,239.36	2,674,715.18	469,870.45	19,677,360.30
May 2023	13,539,065.29	2,610,222.91	443,429.87	19,387,322.73
June 2023	13,168,196.23	2,547,260.10	417,786.30	19,099,779.47
July 2023	12,807,356.20	2,485,790.92	392,927.29	18,814,710.08
August 2023	12,456,276.58	2,425,780.33	368,840.56	18,532,094.27
September 2023	12,114,695.87	2,367,194.16	345,514.00	18,251,911.91
October 2023	11,782,359.55	2,309,998.98	322,935.65	17,974,143.03
November 2023	11,459,019.86	2,254,162.18	301,093.69	17,698,767.83
December 2023	11,144,435.62	2,199,651.88	279,976.46	17,425,766.66
January 2024	10,838,372.09	2,146,436.95	259,572.41	17,155,120.05
February 2024	10,540,600.77	2,094,486.98	239,870.22	16,886,808.64
March 2024	10,250,899.22	2,043,772.30	220,858.64	16,620,813.28
April 2024	9,969,050.95	1,994,263.87	202,526.59	16,357,114.93
May 2024	9,694,845.22	1,945,933.38	184,863.15	16,095,694.72
June 2024	9,428,076.90	1,898,753.15	167,857.50	15,836,533.94
July 2024	9,168,546.33	1,852,696.15	151,499.00	15,579,614.01
August 2024	8,916,059.18	1,807,735.98	135,777.12	15,324,916.52
September 2024	8,670,426.27	1,763,846.87	120,681.48	15,072,423.19
October 2024	8,431,463.47	1,721,003.62	106,201.81	14,822,115.91
November 2024	8,198,991.57	1,679,181.64	92,328.02	14,573,976.68
December 2024	7,972,836.14	1,638,356.90	79,050.10	14,327,987.67
January 2025	7,752,827.37	1,598,505.94	66,358.19	14,084,131.20
February 2025	7,538,800.00	1,559,605.85	54,242.58	13,842,389.71
March 2025	7,330,593.19	1,521,634.23	42,693.64	13,602,745.79
April 2025	7,128,050.35	1,484,569.24	31,701.91	13,365,182.17
May 2025	6,931,019.12	1,448,389.50	21,258.03	13,129,681.72
June 2025	6,739,351.15	1,413,074.18	12,032.60	12,896,227.45
July 2025	6,552,902.10	1,378,602.91	5,101.52	12,664,802.50
August 2025	6,371,531.44	1,344,955.78	406.21	12,435,390.15
September 2025	6,195,102.43	1,312,113.38	0.00	12,207,973.81
October 2025	6,023,481.94	1,280,056.72	0.00	11,982,537.03
November 2025	5,856,540.43	1,248,767.28	0.00	11,760,735.57
December 2025	5,694,151.81	1,218,226.96	0.00	11,542,894.02
January 2026	5,536,193.34	1,188,418.07	0.00	11,328,943.32
February 2026	5,382,545.60	1,159,323.36	0.00	11,118,815.61
March 2026	5,233,092.31	1,130,925.97	0.00	10,912,444.18
April 2026	5,087,720.35	1,103,209.42	0.00	10,709,763.48
May 2026	4,946,319.58	1,076,157.63	0.00	10,510,709.07

Distribution Date	Classes WA and ZU (in the aggregate)	Class WP	Classes BD, BL and BM (in the aggregate)	Classes BH and BK (in the aggregate)
June 2026	\$ 4,808,782.84	\$1,049,754.91	\$ 0.00	\$10,315,217.64
July 2026	4,675,005.80	1,023,985.90	0.00	10,123,226.93
August 2026	4,544,886.97	998,835.63	0.00	9,934,675.79
September 2026	4,418,327.52	974,289.47	0.00	9,749,504.09
October 2026	4,295,231.31	950,333.13	0.00	9,567,652.76
November 2026	4,175,504.74	926,952.65	0.00	9,389,063.71
December 2026	4,059,056.74	904,134.41	0.00	9,213,679.89
January 2027	3,945,798.67	881,865.10	0.00	9,041,445.19
February 2027	3,835,644.26	860,131.73	0.00	8,872,304.51
March 2027	3,728,509.55	838,921.59	0.00	8,706,203.66
April 2027	3,624,312.83	818,222.29	0.00	8,543,089.40
May 2027	3,522,974.60	798,021.74	0.00	8,382,909.40
June 2027	3,424,417.46	778,308.10	0.00	8,225,612.24
July 2027	3,328,566.10	759,069.83	0.00	8,071,147.37
August 2027	3,235,347.22	740,295.66	0.00	7,919,465.13
September 2027	3,144,689.51	721,974.58	0.00	7,770,516.70
October 2027	3,056,523.55	704,095.83	0.00	7,624,254.10
November 2027	2,970,781.78	686,648.92	0.00	7,480,630.20
December 2027	2,887,398.48	669,623.59	0.00	7,339,598.65
January 2028	2,806,309.66	653,009.82	0.00	7,201,113.92
February 2028	2,727,453.06	636,797.85	0.00	7,065,131.27
March 2028	2,650,768.11	620,978.12	0.00	6,931,606.71
April 2028	2,576,195.85	605,541.31	0.00	6,800,497.02
May 2028	2,503,678.90	590,478.31	0.00	6,671,759.73
June 2028	2,433,161.44	575,780.22	0.00	6,545,353.11
July 2028	2,364,589.12	561,438.38	0.00	6,421,236.13
August 2028	2,297,909.09	547,444.29	0.00	6,299,368.48
September 2028	2,233,069.88	533,789.69	0.00	6,179,710.54
October 2028	2,170,021.44	520,466.47	0.00	6,062,223.39
November 2028	2,108,715.04	507,466.75	0.00	5,946,868.77
December 2028	2,049,103.29	494,782.83	0.00	5,833,609.08
January 2029	1,991,140.04	482,407.16	0.00	5,722,407.37
February 2029	1,934,780.40	470,332.40	0.00	5,613,227.34
March 2029	1,879,980.70	458,551.38	0.00	5,506,033.31
April 2029	1,826,698.43	447,057.07	0.00	5,400,790.22
May 2029	1,774,892.23	435,842.65	0.00	5,297,463.61
June 2029	1,724,521.85	424,901.42	0.00	5,196,019.63
July 2029	1,675,548.13	414,226.86	0.00	5,096,424.99
August 2029	1,627,932.97	403,812.60	0.00	4,998,647.01
September 2029	1,581,639.29	393,652.42	0.00	4,902,653.55
October 2029	1,536,631.01	383,740.24	0.00	4,808,413.04
November 2029	1,492,873.02	374,070.13	0.00	4,715,894.46
December 2029	1,450,331.17	364,636.30	0.00	4,625,067.31
January 2030	1,408,972.23	355,433.09	0.00	4,535,901.64
February 2030	1,368,763.84	346,454.98	0.00	4,448,368.01
March 2030	1,329,674.56	337,696.58	0.00	4,362,437.49
April 2030	1,291,673.76	329,152.63	0.00	4,278,081.65

Distribution Date	Classes WA and ZU (in the aggregate)	Class WP	Classes BD, BL and BM (in the aggregate)	Classes BH and BK (in the aggregate)
May 2030	\$ 1,254,731.66	\$ 320,817.98	\$ 0.00	\$ 4,195,272.56
June 2030	1,218,819.26	312,687.62	0.00	4,113,982.77
July 2030	1,183,908.38	304,756.64	0.00	4,034,185.31
August 2030	1,149,971.58	297,020.27	0.00	3,955,853.67
September 2030	1,116,982.15	289,473.83	0.00	3,878,961.81
October 2030	1,084,914.14	282,112.76	0.00	3,803,484.14
November 2030	1,053,742.25	274,932.60	0.00	3,729,395.52
December 2030	1,023,441.92	267,929.02	0.00	3,656,671.24
January 2031	993,989.22	261,097.76	0.00	3,585,287.02
February 2031	965,360.88	254,434.68	0.00	3,515,219.00
March 2031	937,534.25	247,935.74	0.00	3,446,443.74
April 2031	910,487.30	241,596.98	0.00	3,378,938.22
May 2031	884,198.62	235,414.55	0.00	3,312,679.80
June 2031	858,647.33	229,384.68	0.00	3,247,646.23
July 2031	833,813.16	223,503.69	0.00	3,183,815.68
August 2031	809,676.38	217,768.01	0.00	3,121,166.68
September 2031	786,217.78	212,174.11	0.00	3,059,678.12
October 2031	763,418.68	206,718.59	0.00	2,999,329.29
November 2031	741,260.92	201,398.10	0.00	2,940,099.81
December 2031	719,726.82	196,209.38	0.00	2,881,969.68
January 2032	698,799.17	191,149.25	0.00	2,824,919.23
February 2032	678,461.26	186,214.60	0.00	2,768,929.16
March 2032	658,696.80	181,402.40	0.00	2,713,980.47
April 2032	639,489.95	176,709.69	0.00	2,660,054.52
May 2032	620,825.33	172,133.57	0.00	2,607,132.98
June 2032	602,687.95	167,671.22	0.00	2,555,197.86
July 2032	585,063.22	163,319.89	0.00	2,504,231.47
August 2032	567,936.98	159,076.89	0.00	2,454,216.43
September 2032	551,295.42	154,939.59	0.00	2,405,135.66
October 2032	535,125.14	150,905.42	0.00	2,356,972.38
November 2032	519,413.08	146,971.90	0.00	2,309,710.12
December 2032	504,146.54	143,136.56	0.00	2,263,332.69
January 2033	489,313.18	139,397.04	0.00	2,217,824.17
February 2033	474,900.99	135,751.00	0.00	2,173,168.93
March 2033	460,898.28	132,196.16	0.00	2,129,351.61
April 2033	447,293.68	128,730.32	0.00	2,086,357.13
May 2033	434,076.14	125,351.31	0.00	2,044,170.66
June 2033	421,234.91	122,057.00	0.00	2,002,777.65
July 2033	408,759.52	118,845.35	0.00	1,962,163.78
- ·	396,639.81	115,714.34	0.00	1,922,314.99
August 2033	384,865.87	112,661.99	0.00	1,883,217.48
-	· · · · · · · · · · · · · · · · · · ·	109,686.40	0.00	1,844,857.68
October 2033	373,428.08 362,317.09	109,080.40	0.00	1,807,222.26
		100,783.08	0.00	1,770,298.13
December 2033	351,523.78	105,958.02	0.00	1,734,072.42
January 2034	341,039.30	98,514.76	0.00	1,698,532.49
February 2034	330,855.04			
March 2034	320,962.61	95,895.72	0.00	1,663,665.93

Distribution Date	Classes WA and ZU (in the aggregate)	Class WP	Classes BD, BL and BM (in the aggregate)	Classes BH and BK (in the aggregate)
April 2034	\$ 311,353.87	\$ 93,342.84	\$ 0.00	\$ 1,629,460.55
May 2034	302,020.90	90,854.52	0.00	1,595,904.35
June 2034	292,955.99	88,429.15	0.00	1,562,985.57
July 2034	284,151.64	86,065.22	0.00	1,530,692.65
August 2034	275,600.57	83,761.20	0.00	1,499,014.22
September 2034	267,295.67	81,515.63	0.00	1,467,939.12
October 2034	259,230.07	79,327.08	0.00	1,437,456.40
November 2034	251,397.05	77,194.14	0.00	1,407,555.28
December 2034	243,790.09	75,115.45	0.00	1,378,225.17
January 2035	236,402.84	73,089.67	0.00	1,349,455.70
February 2035	229,229.16	71,115.51	0.00	1,321,236.65
March 2035	222,263.02	69,191.69	0.00	1,293,557.99
April 2035	215,498.61	67,316.98	0.00	1,266,409.87
May 2035	208,930.24	65,490.15	0.00	1,239,782.62
June 2035	202,552.42	63,710.05	0.00	1,213,666.72
July 2035	196,359.76	61,975.50	0.00	1,188,052.83
August 2035	190,347.06	60,285.39	0.00	1,162,931.80
September 2035	184,509.24	58,638.62	0.00	1,138,294.60
October 2035	178,841.37	57,034.12	0.00	1,114,132.38
November 2035	173,338.66	55,470.85	0.00	1,090,436.45
December 2035	167,996.44	53,947.77	0.00	1,067,198.27
January 2036	162,810.18	52,463.91	0.00	1,044,409.46
February 2036	157,775.47	51,018.28	0.00	1,022,061.77
March 2036	152,888.03	49,609.94	0.00	1,000,147.10
April 2036	148,143.68	48,237.97	0.00	978,657.52
May 2036	143,538.37	46,901.46	0.00	957,585.21
June 2036	139,068.16	45,599.53	0.00	936,922.49
July 2036	134,729.22	44,331.32	0.00	916,661.85
August 2036	130,517.83	43,096.00	0.00	896,795.87
September 2036	126,430.36	41,892.74	0.00	877,317.30
October 2036	122,463.29	40,720.75	0.00	858,218.98
November 2036	118,613.20	39,579.25	0.00	839,493.92
December 2036	114,876.76	38,467.48	0.00	821,135.22
January 2037	111,250.73	37,384.69	0.00	803,136.12
February 2037	107,731.96	36,330.17	0.00	785,489.97
March 2037	104,317.41	35,303.20	0.00	768,190.26
April 2037	101,004.09	34,303.10	0.00	751,230.57
May 2037	97,789.11	33,329.19	0.00	734,604.61
June 2037	94,669.66	32,380.83	0.00	718,306.20
July 2037	91,643.02	31,457.36	0.00	702,329.26
August 2037	88,706.52	30,558.17	0.00	686,667.84
September 2037	85,857.59	29,682.65	0.00	671,316.07
October 2037	83,093.71	28,830.19	0.00	656,268.21
November 2037	80,412.45	28,000.23	0.00	641,518.60
December 2037	77,811.43	27,192.20	0.00	627,061.71
January 2038	75,288.35	26,405.54	0.00	612,892.07
February 2038	72,840.96	25,639.71	0.00	599,004.34

Distribution Date	Classes WA and ZU (in the aggregate)	Class WP	Classes BD, BL and BM (in the aggregate)	Classes BH and BK (in the aggregate)
March 2038	\$ 70,467.09	\$ 24,894.20	\$ 0.00	\$ 585,393.27
April 2038	68,164.63	24,168.48	0.00	572,053.70
May 2038	65,931.51	23,462.07	0.00	558,980.55
June 2038	63,765.74	22,774.46	0.00	546,168.86
July 2038	61,665.37	22,105.19	0.00	533,613.73
August 2038	59,628.51	21,453.79	0.00	521,310.36
September 2038	57,653.32	20,819.81	0.00	509,254.04
October 2038	55,738.03	20,202.81	0.00	497,440.14
November 2038	53,880.89	19,602.35	0.00	485,864.11
December 2038	52,080.22	19,018.02	0.00	474,521.50
January 2039	50,334.38	18,449.41	0.00	463,407.92
February 2039	48,641.78	17,896.11	0.00	452,519.06
March 2039	47,000.87	17,357.74	0.00	441,850.70
April 2039	45,410.15	16,833.91	0.00	431,398.69
May 2039	43,868.16	16,324.26	0.00	421,158.95
June 2039	42,373.47	15,828.42	0.00	411,127.48
July 2039	40,924.71	15,346.04	0.00	401,300.35
August 2039	39,520.54	14,876.78	0.00	391,673.70
September 2039	38,159.65	14,420.30	0.00	382,243.74
October 2039	36,840.77	13,976.27	0.00	373,006.75
November 2039	35,562.68	13,544.38	0.00	363,959.08
December 2039	34,324.18	13,124.30	0.00	355,097.15
January 2040	33,124.11	12,715.75	0.00	346,417.42
February 2040	31,961.33	12,318.41	0.00	337,916.44
March 2040	30,834.76	11,932.01	0.00	329,590.82
April 2040	29,743.33	11,556.26	0.00	321,437.22
May 2040	28,686.00	11,190.89	0.00	313,452.37
June 2040	27,661.77	10,835.62	0.00	305,633.05
July 2040	26,669.65	10,490.21	0.00	297,976.11
August 2040	25,708.71	10,154.38	0.00	290,478.45
September 2040	24,778.01	9,827.90	0.00	283,137.03
October 2040	23,876.66	9,510.51	0.00	275,948.86
November 2040	23,003.79	9,202.00	0.00	268,911.01
December 2040	22,158.56	8,902.11	0.00	262,020.61
January 2041	21,340.15	8,610.64	0.00	255,274.81
February 2041	20,547.75	8,327.36	0.00	248,670.86
March 2041	19,780.59	8,052.06	0.00	242,206.03
April 2041	19,037.92	7,784.52	0.00	235,877.63
May 2041	18,319.00	7,524.55	0.00	229,683.06
June 2041	17,623.13	7,271.95	0.00	223,619.72
July 2041	16,949.62	7,026.52	0.00	217,685.10
August 2041	16,297.80	6,788.08	0.00	211,876.70
September 2041	15,667.01	6,556.44	0.00	206,192.08
October 2041	15,056.62	6,331.43	0.00	200,628.86
November 2041	14,466.03	6,112.87	0.00	195,184.68
December 2041	13,894.63	5,900.59	0.00	189,857.24
January 2042	13,341.84	5,694.42	0.00	184,644.27

Distribution Date	Classes WA and ZU (in the aggregate)	Class WP	Classes BD, BL and BM (in the aggregate)	Classes BH and BK (in the aggregate)
February 2042	\$ 12,807.10	\$ 5,494.20	\$ 0.00	\$ 179,543.55
March 2042	12,289.87	5,299.78	0.00	174,552.90
April 2042	11,789.62	5,111.00	0.00	169,670.17
May 2042	11,305.83	4,927.71	0.00	164,893.27
June 2042	10,838.00	4,749.77	0.00	160,220.13
July 2042	10,385.64	4,577.03	0.00	155,648.72
August 2042	9,948.29	4,409.36	0.00	151,177.05
September 2042	9,525.48	4,246.61	0.00	146,803.18
October 2042	9,116.78	4,088.67	0.00	142,525.19
November 2042	8,721.75	3,935.40	0.00	138,341.20
December 2042	8,339.97	3,786.67	0.00	134,249.36
January 2043	7,971.03	3,642.36	0.00	130,247.86
February 2043	7,614.55	3,502.36	0.00	126,334.93
March 2043	7,270.13	3,366.54	0.00	122,508.81
April 2043	6,937.41	3,234.81	0.00	118,767.80
May 2043	6,616.02	3,107.03	0.00	115,110.22
June 2043	6,305.61	2,983.12	0.00	111,534.41
July 2043	6,005.84	2,862.96	0.00	108,038.76
August 2043	5,716.39	2,746.45	0.00	104,621.68
September 2043	5,436.93	2,633.49	0.00	101,281.61
October 2043	5,167.15	2,523.99	0.00	98,017.02
November 2043	4,906.75	2,417.86	0.00	94,826.40
December 2043	4,655.43	2,314.99	0.00	91,708.29
January 2044	4,412.92	2,215.31	0.00	88,661.24
February 2044	4,178.93	2,118.72	0.00	85,683.82
March 2044	3,953.19	2,025.13	0.00	82,774.65
April 2044	3,735.46	1,934.48	0.00	79,932.36
1	3,525.46	1,846.67	0.00	77,155.61
May 2044	3,322.97	1,761.62	0.00	74,443.08
July 2044	3,127.74	1,679.27	0.00	71,793.47
August 2044		1,599.54	0.00	69,205.53
C	2,939.54	1,522.35	0.00	66,678.02
September 2044	2,758.15	1,447.63	0.00	64,209.70
October 2044	2,583.35	,	0.00	61,799.38
November 2044	2,414.93	1,375.31	0.00	
December 2044	2,252.68	1,305.34		59,445.89 57,149,09
January 2045	2,096.42	1,237.63	0.00	57,148.08
February 2045	1,945.93	1,172.14	0.00	54,904.81
March 2045	1,801.05	1,108.79	0.00	52,714.97
April 2045	1,661.59	1,047.52	0.00	50,577.49
May 2045	1,527.37	988.29	0.00	48,491.28
June 2045	1,398.23	931.02	0.00	46,455.30
July 2045	1,273.99	875.67	0.00	44,468.53
August 2045	1,154.51	822.18	0.00	42,529.95
September 2045	1,039.61	770.49	0.00	40,638.58
October 2045	929.16	720.57	0.00	38,793.44
November 2045	823.00	672.34	0.00	36,993.58
December 2045	721.00	625.78	0.00	35,238.08

Distribution Date	WA and ZU aggregate)	 Class WP	BL a	sses BD, and BM aggregate)	ses BH and BK the aggregate)
January 2046	\$ 623.02	\$ 580.82	\$	0.00	\$ 33,526.00
February 2046	528.92	537.43		0.00	31,856.46
March 2046	438.58	495.55		0.00	30,228.57
April 2046	351.88	455.15		0.00	28,641.46
May 2046	268.68	416.18		0.00	27,094.30
June 2046	188.87	378.60		0.00	25,586.24
July 2046	112.34	342.37		0.00	24,116.46
August 2046	38.98	307.45		0.00	22,684.18
September 2046	0.00	273.80		0.00	21,288.60
October 2046	0.00	241.38		0.00	19,928.96
November 2046	0.00	210.17		0.00	18,604.49
December 2046	0.00	180.11		0.00	17,314.45
January 2047	0.00	151.19		0.00	16,058.13
February 2047	0.00	123.36		0.00	14,834.80
March 2047	0.00	96.59		0.00	13,643.77
April 2047	0.00	70.85		0.00	12,484.35
May 2047	0.00	46.12		0.00	11,355.87
June 2047	0.00	22.35		0.00	10,257.68
July 2047	0.00	0.00		0.00	9,189.11
August 2047	0.00	0.00		0.00	8,149.55
September 2047	0.00	0.00		0.00	7,138.36
October 2047	0.00	0.00		0.00	6,154.94
November 2047	0.00	0.00		0.00	5,198.69
December 2047	0.00	0.00		0.00	4,269.02
January 2048	0.00	0.00		0.00	3,365.36
February 2048	0.00	0.00		0.00	2,487.14
March 2048	0.00	0.00		0.00	1,633.82
April 2048	0.00	0.00		0.00	804.85
May 2048 and thereafter	0.00	0.00		0.00	0.00

Distribution Date	Class TD	Class TP	Classes MB, MC, MV, VM and ZM (in the aggregate)	Class MK
Initial Balance	\$746,000.00	\$15,000,000.00	\$128,501,000.00	\$5,674,000.00
December 2018	744,676.44	14,967,018.44	128,065,745.11	5,648,109.08
January 2019	742,691.76	14,929,467.74	127,588,398.08	5,617,108.30
February 2019	740,047.57	14,887,362.45	127,069,193.10	5,581,035.86
March 2019	736,746.55	14,840,720.64	126,508,396.86	5,539,938.48
April 2019	732,792.47	14,789,563.90	125,906,308.41	5,493,871.43
May 2019	728,190.19	14,733,917.32	125,263,258.92	5,442,898.40
June 2019	722,945.65	14,673,809.46	124,579,611.43	5,387,091.49
July 2019	717,065.87	14,609,272.37	123,855,760.55	5,326,531.08
August 2019	710,558.96	14,540,341.54	123,092,132.14	5,261,305.71
September 2019	703,434.05	14,467,055.88	122,289,182.89	5,191,512.02
October 2019	695,701.38	14,389,457.67	121,447,399.95	5,117,254.48
November 2019	687,372.18	14,307,592.57	120,567,300.42	5,038,645.36
December 2019	678,458.72	14,221,509.52	119,649,430.89	4,955,804.46
January 2020	668,974.27	14,131,260.75	118,694,366.86	4,868,858.93
February 2020	658,933.07	14,036,901.70	117,702,712.20	4,777,943.09
March 2020	648,350.35	13,938,490.94	116,675,098.49	4,683,198.16
April 2020	637,242.23	13,836,090.20	115,612,184.42	4,584,772.03
May 2020	625,625.78	13,729,764.20	114,514,655.04	4,482,819.00
June 2020	613,518.93	13,619,580.66	113,383,221.07	4,377,499.53
July 2020	600,940.43	13,505,610.21	112,218,618.16	4,268,979.88
August 2020	587,909.90	13,387,926.29	111,021,606.04	4,157,431.88
September 2020	574,447.69	13,266,605.12	109,792,967.73	4,043,032.60
October 2020	560,574.93	13,141,725.56	108,533,508.70	3,925,963.97
November 2020	546,313.42	13,013,369.10	107,244,055.96	3,806,412.51
December 2020	531,685.65	12,881,619.68	105,925,457.15	3,684,568.95
January 2021	516,714.74	12,746,563.68	104,578,579.61	3,560,627.87
February 2021	501,424.37	12,608,289.78	103,243,157.48	3,439,395.39
March 2021	485,838.77	12,466,888.88	101,919,097.31	3,320,832.95
April 2021	469,982.65	12,322,453.99	100,606,306.40	3,204,902.44
May 2021	454,470.54	12,179,247.22	99,304,692.80	3,091,566.21
June 2021	439,297.61	12,037,258.53	98,014,165.28	2,980,787.08
July 2021	424,459.03	11,896,478.01	96,734,633.36	2,872,528.29
August 2021	409,950.07	11,756,895.80	95,466,007.27	2,766,753.55
September 2021	395,766.08	11,618,502.11	94,208,197.96	2,663,427.01
October 2021	381,902.43	11,481,287.24	92,961,117.08	2,562,513.25
November 2021	368,354.52	11,345,241.59	91,724,677.02	2,463,977.25
December 2021	355,117.88	11,210,355.59	90,498,790.83	2,367,784.47
January 2022	342,188.02	11,076,619.78	89,283,372.29	2,273,900.74
February 2022	329,560.56	10,944,024.77	88,078,335.85	2,182,292.35
March 2022	317,231.12	10,812,561.25	86,883,596.65	2,092,925.96
April 2022	305,195.43	10,682,219.96	85,699,070.52	2,005,768.65
May 2022	293,449.24	10,552,991.73	84,524,673.94	1,920,787.92
June 2022	281,988.32	10,424,867.48	83,360,324.07	1,837,951.66
July 2022	270,808.56	10,297,838.18	82,205,938.75	1,757,228.13
August 2022	259,905.84	10,171,894.88	81,061,436.45	1,678,586.01
September 2022	249,276.13	10,047,028.70	79,926,736.31	1,601,994.34

Distribution Date	Class TD	Class TP	Classes MB, MC, MV, VM and ZM (in the aggregate)	Class MK
October 2022	\$238,915.42	\$ 9,923,230.83	\$ 78,801,758.11	\$1,527,422.55
November 2022	228,819.77	9,800,492.53	77,686,422.27	1,454,840.46
December 2022	218,985.27	9,678,805.14	76,580,649.87	1,384,218.23
January 2023	209,408.08	9,558,160.05	75,484,362.59	1,315,526.42
February 2023	200,084.39	9,438,548.74	74,397,482.76	1,248,735.93
March 2023	191,010.43	9,319,962.75	73,319,933.32	1,183,818.02
April 2023	182,182.49	9,202,393.68	72,251,637.83	1,120,744.33
May 2023	173,596.89	9,085,833.21	71,192,520.46	1,059,486.83
June 2023	165,250.03	8,970,273.07	70,142,506.00	1,000,017.84
July 2023	157,138.31	8,855,705.08	69,101,519.83	942,310.03
August 2023	149,258.20	8,742,121.10	68,069,487.94	886,336.38
September 2023	141,606.21	8,629,513.08	67,046,336.90	832,070.26
October 2023	134,178.88	8,517,873.01	66,031,993.86	779,485.34
November 2023	126,972.81	8,407,192.97	65,026,386.59	728,555.60
December 2023	119,984.63	8,297,465.07	64,029,443.41	679,255.38
January 2024	113,211.02	8,188,681.52	63,041,093.22	631,559.33
February 2024	106,648.69	8,080,834.57	62,061,265.49	585,442.40
March 2024	100,294.41	7,973,916.53	61,089,890.26	540,879.88
April 2024	94,144.96	7,867,919.79	60,126,898.12	497,847.37
May 2024	88,197.20	7,762,836.78	59,172,220.24	456,320.73
June 2024	82,447.98	7,658,660.01	58,225,788.32	416,276.18
July 2024	76,894.22	7,555,382.04	57,287,534.62	377,690.22
August 2024	71,532.89	7,452,995.48	56,357,391.93	340,539.63
September 2024	66,360.96	7,351,493.02	55,435,293.59	304,801.51
October 2024	61,375.47	7,250,867.40	54,521,173.48	270,453.23
November 2024	56,573.49	7,151,111.41	53,614,966.00	237,472.45
December 2024	51,952.12	7,052,217.90	52,716,606.08	205,837.13
January 2025	47,508.49	6,954,179.79	51,826,029.18	175,525.47
February 2025	43,239.77	6,856,990.05	50,943,171.25	146,516.01
March 2025	39,143.19	6,760,641.70	50,067,968.80	118,787.50
April 2025	35,215.97	6,665,127.83	49,200,358.81	92,318.99
May 2025	31,455.41	6,570,441.56	48,340,278.78	67,089.81
June 2025	27,858.82	6,476,576.09	47,487,666.72	43,079.52
July 2025	24,423.54	6,383,524.67	46,642,461.13	20,267.97
August 2025	21,146.96	6,291,280.60	45,804,600.99	2,540.97
September 2025	18,026.48	6,199,837.23	44,974,025.81	0.00
October 2025	15,059.56	6,109,187.97	44,150,675.54	0.00
November 2025	12,243.67	6,019,326.28	43,334,490.64	0.00
December 2025	9,576.33	5,930,245.67	42,532,418.86	0.00
January 2026	7,055.07	5,841,939.72	41,744,665.31	0.00
February 2026	4,677.48	5,754,402.02	40,970,980.33	0.00
March 2026	2,441.15	5,667,626.27	40,211,118.56	0.00
April 2026	343.73	5,581,606.16	39,464,838.82	0.00
May 2026	0.00	5,496,335.48	38,731,904.11	0.00
June 2026	0.00	5,411,808.04	38,012,081.46	0.00
July 2026	0.00	5,328,017.71	37,305,141.93	0.00
August 2026	0.00	5,244,958.41	36,610,860.49	0.00

Distribution Date	Class TD	Class TP	Classes MB, MC, MV, VM and ZM (in the aggregate)	Class MK
September 2026	\$ 0.00	\$ 5,162,924.55	\$ 35,929,015.99	\$ 0.00
October 2026	0.00	5,082,106.25	35,259,391.07	0.00
November 2026	0.00	5,002,486.07	34,601,772.12	0.00
December 2026	0.00	4,924,046.79	33,955,949.18	0.00
January 2027	0.00	4,846,771.47	33,321,715.91	0.00
February 2027	0.00	4,770,643.38	32,698,869.54	0.00
March 2027	0.00	4,695,646.04	32,087,210.74	0.00
April 2027	0.00	4,621,763.19	31,486,543.66	0.00
May 2027	0.00	4,548,978.82	30,896,675.78	0.00
June 2027	0.00	4,477,277.12	30,317,417.91	0.00
July 2027	0.00	4,406,642.51	29,748,584.13	0.00
August 2027	0.00	4,337,059.65	29,189,991.70	0.00
September 2027	0.00	4,268,513.39	28,641,461.02	0.00
October 2027	0.00	4,200,988.80	28,102,815.62	0.00
November 2027	0.00	4,134,471.16	27,573,882.04	0.00
December 2027	0.00	4,068,945.98	27,054,489.82	0.00
January 2028	0.00	4,004,398.94	26,544,471.42	0.00
February 2028	0.00	3,940,815.94	26,043,662.22	0.00
March 2028	0.00	3,878,183.08	25,551,900.43	0.00
April 2028	0.00	3,816,486.65	25,069,027.02	0.00
May 2028	0.00	3,755,713.13	24,594,885.74	0.00
June 2028	0.00	3,695,849.21	24,129,323.03	0.00
July 2028	0.00	3,636,881.74	23,672,187.96	0.00
August 2028	0.00	3,578,797.78	23,223,332.23	0.00
September 2028	0.00	3,521,584.57	22,782,610.08	0.00
October 2028	0.00	3,465,229.50	22,349,878.29	0.00
November 2028	0.00	3,409,720.19	21,924,996.09	0.00
December 2028	0.00	3,355,044.38	21,507,825.15	0.00
January 2029	0.00	3,301,190.03	21,098,229.56	0.00
February 2029	0.00	3,248,145.24	20,696,075.71	0.00
March 2029	0.00	3,195,898.29	20,301,232.33	0.00
April 2029	0.00	3,144,437.63	19,913,570.43	0.00
May 2029	0.00	3,093,751.86	19,532,963.22	0.00
June 2029	0.00	3,043,829.75	19,159,286.12	0.00
July 2029	0.00	2,994,660.23	18,792,416.72	0.00
August 2029	0.00	2,946,232.38	18,432,234.71	0.00
September 2029	0.00	2,898,535.44	18,078,621.88	0.00
October 2029	0.00	2,851,558.81	17,731,462.04	0.00
November 2029	0.00	2,805,292.03	17,390,641.04	0.00
December 2029	0.00	2,759,724.78	17,056,046.70	0.00
January 2030	0.00	2,714,846.90	16,727,568.78	0.00
February 2030	0.00	2,670,648.38	16,405,098.95	0.00
March 2030	0.00	2,627,119.33	16,088,530.78	0.00
April 2030	0.00	2,584,250.02	15,777,759.66	0.00
May 2030	0.00	2,542,030.84	15,472,682.80	0.00
June 2030	0.00	2,500,452.34	15,173,199.21	0.00
July 2030	0.00	2,459,505.19	14,879,209.63	0.00

Distribution Date	Class TD	Class TP	Classes MB, MC, MV, VM and ZM (in the aggregate)	Class MK
August 2030	\$ 0.00	\$ 2,419,180.18	\$ 14,590,616.54	\$ 0.00
September 2030	0.00	2,379,468.26	14,307,324.12	0.00
October 2030	0.00	2,340,360.48	14,029,238.19	0.00
November 2030	0.00	2,301,848.04	13,756,266.24	0.00
December 2030	0.00	2,263,922.25	13,488,317.33	0.00
January 2031	0.00	2,226,574.55	13,225,302.13	0.00
February 2031	0.00	2,189,796.49	12,967,132.86	0.00
March 2031	0.00	2,153,579.77	12,713,723.25	0.00
April 2031	0.00	2,117,916.18	12,464,988.55	0.00
May 2031	0.00	2,082,797.62	12,220,845.48	0.00
June 2031	0.00	2,048,216.15	11,981,212.20	0.00
July 2031	0.00	2,014,163.88	11,746,008.32	0.00
August 2031	0.00	1,980,633.09	11,515,154.82	0.00
September 2031	0.00	1,947,616.14	11,288,574.07	0.00
October 2031	0.00	1,915,105.50	11,066,189.81	0.00
November 2031	0.00	1,883,093.76	10,847,927.08	0.00
December 2031	0.00	1,851,573.60	10,633,712.25	0.00
		1,820,537.81	10,423,472.96	0.00
January 2032	0.00	1,789,979.29		0.00
February 2032	0.00	, , , , , , , , , , , , , , , , , , ,	10,217,138.12 10,014,637.89	0.00
March 2032	0.00	1,759,891.04		
April 2032	0.00	1,730,266.14	9,815,903.62	0.00
May 2032	0.00	1,701,097.80	9,620,867.90	0.00
June 2032	0.00	1,672,379.30	9,429,464.46	0.00
July 2032	0.00	1,644,104.04	9,241,628.21	0.00
August 2032	0.00	1,616,265.49	9,057,295.20	0.00
September 2032	0.00	1,588,857.24	8,876,402.58	0.00
October 2032	0.00	1,561,872.93	8,698,888.61	0.00
November 2032	0.00	1,535,306.34	8,524,692.63	0.00
December 2032	0.00	1,509,151.31	8,353,755.06	0.00
January 2033	0.00	1,483,401.78	8,186,017.32	0.00
February 2033	0.00	1,458,051.76	8,021,421.90	0.00
March 2033	0.00	1,433,095.36	7,859,912.26	0.00
April 2033	0.00	1,408,526.77	7,701,432.89	0.00
May 2033	0.00	1,384,340.27	7,545,929.22	0.00
June 2033	0.00	1,360,530.22	7,393,347.65	0.00
July 2033	0.00	1,337,091.04	7,243,635.53	0.00
August 2033	0.00	1,314,017.26	7,096,741.11	0.00
September 2033	0.00	1,291,303.48	6,952,613.57	0.00
October 2033	0.00	1,268,944.36	6,811,202.97	0.00
November 2033	0.00	1,246,934.65	6,672,460.25	0.00
December 2033	0.00	1,225,269.18	6,536,337.22	0.00
January 2034	0.00	1,203,942.85	6,402,786.53	0.00
February 2034	0.00	1,182,950.63	6,271,761.65	0.00
March 2034	0.00	1,162,287.56	6,143,216.89	0.00
April 2034	0.00	1,141,948.77	6,017,107.36	0.00
May 2034	0.00	1,121,929.42	5,893,388.94	0.00
June 2034	0.00	1,102,224.79	5,772,018.32	0.00

Distribution Date	Class TD	Class TP	Classes MB, MC, MV, VM and ZM (in the aggregate)	Class MK
July 2034	\$ 0.00	\$ 1,082,830.19	\$ 5,652,952.92	\$ 0.00
August 2034	0.00	1,063,741.01	5,536,150.92	0.00
September 2034	0.00	1,044,952.71	5,421,571.26	0.00
October 2034	0.00	1,026,460.82	5,309,173.57	0.00
November 2034	0.00	1,008,260.91	5,198,918.21	0.00
December 2034	0.00	990,348.63	5,090,766.23	0.00
January 2035	0.00	972,719.71	4,984,679.39	0.00
February 2035	0.00	955,369.91	4,880,620.09	0.00
March 2035	0.00	938,295.07	4,778,551.43	0.00
April 2035	0.00	921,491.08	4,678,437.13	0.00
May 2035	0.00	904,953.90	4,580,241.57	0.00
June 2035	0.00	888,679.55	4,483,929.75	0.00
July 2035	0.00	872,664.08	4,389,467.30	0.00
August 2035	0.00	856,903.64	4,296,820.46	0.00
September 2035	0.00	841,394.39	4,205,956.04	0.00
October 2035	0.00	826,132.58	4,116,841.48	0.00
November 2035	0.00	811,114.51	4,029,444.75	0.00
December 2035	0.00	796,336.51	3,943,734.43	0.00
January 2036	0.00	781,794.99	3,859,679.62	0.00
February 2036	0.00	767,486.40	3,777,250.01	0.00
March 2036	0.00	753,407.23	3,696,415.78	0.00
April 2036	0.00	739,554.05	3,617,147.68	0.00
May 2036	0.00	725,923.45	3,539,416.95	0.00
June 2036	0.00	712,512.09	3,463,195.36	0.00
July 2036	0.00	699,316.67	3,388,455.17	0.00
August 2036	0.00	686,333.93	3,315,169.14	0.00
September 2036	0.00	673,560.67	3,243,310.51	0.00
October 2036	0.00	660,993.73	3,172,853.00	0.00
November 2036	0.00	648,630.01	3,103,770.79	0.00
December 2036	0.00	636,466.42	3,036,038.52	0.00
January 2037	0.00	624,499.96	2,969,631.30	0.00
February 2037	0.00	612,727.63	2,904,524.67	0.00
March 2037	0.00	601,146.51	2,840,694.59	0.00
April 2037	0.00	589,753.71	2,778,117.48	0.00
May 2037	0.00	578,546.36	2,716,770.15	0.00
June 2037	0.00	567,521.67	2,656,629.85	0.00
July 2037	0.00	556,676.86	2,597,674.22	0.00
August 2037	0.00	546,009.20	2,539,881.30	0.00
September 2037	0.00	535,516.01	2,483,229.54	0.00
October 2037	0.00	525,194.64	2,427,697.74	0.00
November 2037	0.00	515,042.48	2,373,265.12	0.00
December 2037	0.00	505,056.94	2,319,911.25	0.00
January 2038	0.00	495,235.51	2,267,616.06	0.00
February 2038	0.00	485,575.68	2,216,359.85	0.00
March 2038	0.00	476,074.98	2,166,123.27	0.00
April 2038	0.00	466,731.00	2,116,887.32	0.00
May 2038	0.00	457,541.34	2,068,633.33	0.00

Distribution Date	Class TD	Class TP	Classes MB, MC, MV, VM and ZM (in the aggregate)	Class MK
June 2038	\$ 0.00	\$ 448,503.64	\$ 2,021,342.99	\$ 0.00
July 2038	0.00	439,615.59		0.00
August 2038	0.00	430,874.90		0.00
September 2038	0.00	422,279.31		0.00
October 2038	0.00	413,826.61		0.00
November 2038	0.00	405,514.60		0.00
December 2038	0.00	397,341.12		0.00
January 2039	0.00	389,304.07		0.00
February 2039	0.00	381,401.33		0.00
March 2039	0.00	373,630.85		0.00
April 2039	0.00	365,990.59		0.00
May 2039	0.00	358,478.56		0.00
June 2039	0.00	351,092.77		0.00
July 2039	0.00	343,831.29		0.00
August 2039	0.00	336,692.20		0.00
September 2039	0.00	329,673.61		0.00
October 2039	0.00	322,773.66		0.00
November 2039	0.00	315,990.51		0.00
December 2039	0.00	309,322.37		0.00
January 2040	0.00	302,767.46		0.00
February 2040	0.00	296,324.01		0.00
March 2040	0.00	289,990.30		0.00
April 2040	0.00	283,764.64		0.00
May 2040	0.00	277,645.34		0.00
June 2040	0.00	271,630.76		0.00
July 2040	0.00	265,719.26		0.00
August 2040	0.00	259,909.25		0.00
September 2040	0.00	254,199.14		0.00
October 2040	0.00	248,587.37		0.00
November 2040	0.00	243,072.42		0.00
December 2040	0.00	237,652.77		0.00
	0.00	232,326.94		0.00
January 2041		227,093.45		0.00
February 2041	0.00	,	. ,	0.00
March 2041		221,950.87		
April 2041	0.00	216,897.77		0.00
May 2041	0.00	211,932.74		0.00
June 2041	0.00	207,054.42		0.00
July 2041	0.00	202,261.43		0.00
August 2041	0.00	197,552.43		0.00
September 2041	0.00	192,926.11		0.00
October 2041	0.00	188,381.17		0.00
November 2041	0.00	183,916.32		0.00
December 2041	0.00	179,530.30		0.00
January 2042	0.00	175,221.86		0.00
February 2042	0.00	170,989.79		0.00
March 2042	0.00	166,832.87		0.00
April 2042	0.00	162,749.92	2 630,651.45	0.00

Distribution Date	Class TD	Class TP	Classes MB, MC, MV, VM and ZM (in the aggregate)	Class MK
May 2042	\$ 0.00	\$ 158,739.76	\$ 612,986.47	\$ 0.00
June 2042	0.00	154,801.24	595,704.30	0.00
July 2042	0.00	150,933.22	578,797.46	0.00
August 2042	0.00	147,134.59	562,258.62	0.00
September 2042	0.00	143,404.24	546,080.61	0.00
October 2042	0.00	139,741.08	530,256.35	0.00
November 2042	0.00	136,144.05	514,778.93	0.00
December 2042	0.00	132,612.09	499,641.53	0.00
January 2043	0.00	129,144.16	484,837.49	0.00
February 2043	0.00	125,739.25	470,360.25	0.00
March 2043	0.00	122,396.33	456,203.38	0.00
April 2043	0.00	119,114.42	442,360.58	0.00
May 2043	0.00	115,892.55	428,825.65	0.00
June 2043	0.00	112,729.74	415,592.51	0.00
July 2043	0.00	109,625.06	402,655.19	0.00
August 2043	0.00	106,577.56	390,007.84	0.00
September 2043	0.00	103,586.34	377,644.71	0.00
October 2043	0.00	100,650.47	365,560.16	0.00
November 2043	0.00	97,769.07	353,748.66	0.00
December 2043	0.00	94,941.26	342,204.77	0.00
January 2044	0.00	92,166.18	330,923.17	0.00
February 2044	0.00	89,442.97	319,898.63	0.00
March 2044	0.00	86,770.79	309,126.00	0.00
April 2044	0.00	84,148.81	298,600.26	0.00
May 2044	0.00	81,576.22	288,316.45	0.00
June 2044	0.00	79,052.22	278,269.74	0.00
July 2044	0.00	76,576.02	268,455.35	0.00
August 2044	0.00	74,146.84	258,868.62	0.00
September 2044	0.00	71,763.91	249,504.97	0.00
October 2044	0.00	69,426.48	240,359.89	0.00
November 2044	0.00	67,133.80	231,428.97	0.00
December 2044	0.00	64,885.15	222,707.89	0.00
January 2045	0.00	62,679.80	214,192.40	0.00
February 2045	0.00	60,517.03	205,878.32	0.00
March 2045	0.00	58,396.16	197,761.57	0.00
April 2045	0.00	56,316.50	189,838.13	0.00
May 2045	0.00	54,277.36	182,104.06	0.00
June 2045	0.00	52,278.08	174,555.51	0.00
July 2045	0.00	50,318.00	167,188.69	0.00
August 2045	0.00	48,396.47	159,999.87	0.00
September 2045	0.00	46,512.85	152,985.40	0.00
October 2045	0.00	44,666.53	146,141.72	0.00
November 2045	0.00	42,856.87	139,465.30	0.00
December 2045	0.00	41,083.27	132,952.70	0.00
January 2046	0.00	39,345.14	126,600.55	0.00
February 2046	0.00	37,641.87	120,405.53	0.00
March 2046	0.00	35,972.89	114,364.39	0.00

Distribution Date	Class TD	Class TP	M	asses MB, MC, V, VM and ZM the aggregate)	Class MK
April 2046	\$ 0.00	\$ 34,337.63	\$	108,473.94	\$ 0.00
May 2046	0.00	32,735.53		102,731.05	0.00
June 2046	0.00	31,166.02		97,132.64	0.00
July 2046	0.00	29,628.56		91,675.72	0.00
August 2046	0.00	28,122.61		86,357.32	0.00
September 2046	0.00	26,647.65		81,174.56	0.00
October 2046	0.00	25,203.15		76,124.58	0.00
November 2046	0.00	23,788.60		71,204.61	0.00
December 2046	0.00	22,403.50		66,411.90	0.00
January 2047	0.00	21,047.33		61,743.79	0.00
February 2047	0.00	19,719.63		57,197.64	0.00
March 2047	0.00	18,419.89		52,770.86	0.00
April 2047	0.00	17,147.66		48,460.94	0.00
May 2047	0.00	15,902.45		44,265.39	0.00
June 2047	0.00	14,683.81		40,181.78	0.00
July 2047	0.00	13,491.29		36,207.73	0.00
August 2047	0.00	12,324.44		32,340.89	0.00
September 2047	0.00	11,182.82		28,578.97	0.00
October 2047	0.00	10,066.00		24,919.72	0.00
November 2047	0.00	8,973.55		21,360.94	0.00
December 2047	0.00	7,905.05		17,900.47	0.00
January 2048	0.00	6,860.09		14,536.17	0.00
February 2048	0.00	5,838.27		11,265.98	0.00
March 2048	0.00	4,839.18		8,087.85	0.00
April 2048	0.00	3,862.43		4,999.79	0.00
May 2048	0.00	2,907.63		1,999.83	0.00
June 2048	0.00	1,974.41		0.00	0.00
July 2048	0.00	1,062.38		0.00	0.00
August 2048	0.00	171.17		0.00	0.00
September 2048 and thereafter	0.00	0.00		0.00	0.00

Initial Balance         \$4,647,000.00         \$14,698,000.00         \$10,162,000.00           December 2018         4,623,987.29         14,679,241.69         10,135,952.25           January 2019         4,596,431.69         14,658,107.62         10,108,202.86           February 2019         4,564,368.78         14,634,608.59         10,078,769.05           March 2019         4,527,842.59         14,608,757.67         10,047,669.56           April 2019         4,486,905.59         14,580,570.15         10,014,924.64           May 2019         4,441,618.61         14,550,063.55         9,980,556.02           June 2019         4,392,050.80         14,517,257.60         9,944,586.91           July 2019         4,389,279.48         14,482,174.24         9,907,041.92           August 2019         4,280,390.09         14,444,837.56         9,867,947.10           September 2019         4,218,475.98         14,405,273.83         9,827,329.86           October 2019         4,082,985.91         14,319,580.82         9,741,644.52           December 2019         4,082,985.91         14,319,580.82         9,741,644.52           December 2019         4,096,34.92         14,273,514.55         9,690,637.84           January 2020         3,852,337.90         1
January 2019         4,596,431.69         14,658,107.62         10,108,202.86           February 2019         4,564,368.78         14,634,608.59         10,078,769.05           March 2019         4,527,842.59         14,608,757.67         10,047,669.56           April 2019         4,486,905.59         14,580,570.15         10,014,924.64           May 2019         4,441,618.61         14,550,063.55         9,980,556.02           June 2019         4,392,050.80         14,517,257.60         9,944,586.91           July 2019         4,280,390.09         14,444,837.56         9,867,947.10           September 2019         4,218,475.98         14,405,273.83         9,827,329.86           October 2019         4,009,634.92         14,319,580.82         9,741,644.52           December 2019         4,009,634.92         14,273,514.55         9,660,437.84           January 2020         3,932,708.78         14,225,347.17         9,650,231.52           February 2020         3,852,337.90         14,175,115.22         9,602,459.34           March 2020         3,681,816.86         14,068,613.39         9,553,356.25           April 2020         3,681,816.86         14,068,613.39         9,502,958.31           May 2020         3,681,816.86         14,068,613.39
February 2019         4,564,368.78         14,634,608.59         10,078,769.05           March 2019         4,527,842.59         14,608,757.67         10,047,669.56           April 2019         4,486,905.59         14,580,570.15         10,014,924.64           May 2019         4,441,618.61         14,550,063.55         9,980,556.02           June 2019         4,339,2050.80         14,517,257.60         9,944,586.91           July 2019         4,280,390.09         14,444,837.56         9,867,947.10           September 2019         4,218,475.98         14,405,273.83         9,827,329.86           October 2019         4,152,638.33         14,363,511.42         9,785,218.98           November 2019         4,082,985.91         14,319,580.82         9,741,644.52           December 2019         4,009,634.92         14,273,514.55         9,696,637.84           January 2020         3,852,337.90         14,175,115.22         9,602,459.34           March 2020         3,768,659.39         14,122,857.18         9,553,356.25           April 2020         3,681,816.86         14,068,613.39         9,502,958.31           May 2020         3,681,816.86         14,068,613.39         9,502,958.31           May 2020         3,499,244.79         13,954,339.22
March 20194,527,842.5914,608,757.6710,047,669.56April 20194,486,905.5914,580,570.1510,014,924.64May 20194,441,618.6114,550,063.559,980,556.02June 20194,392,050.8014,517,257.609,944,586.91July 20194,338,279.4814,482,174.249,907,041.92August 20194,280,390.0914,444,837.569,867,947.10September 20194,218,475.9814,405,273.839,827,329.86October 20194,152,638.3314,363,511.429,785,218.98November 20194,092,985.9114,319,580.829,741,644.52December 20194,009,634.9214,273,514.559,696,637.84January 20203,932,708.7814,225,347.179,650,231.52February 20203,768,659.3914,175,115.229,602,459.34March 20203,681,816.8614,068,613.399,502,958.31May 20203,591,960.1014,012,426.089,451,302.61June 20203,499,244.7913,954,339.229,398,427.31July 20203,403,832.1613,894,398.529,344,371.50August 20203,305,888.7213,832,651.399,289,175.21September 20203,205,585.8813,769,146.819,232,879.33
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July 2019       4,338,279.48       14,482,174.24       9,907,041.92         August 2019       4,280,390.09       14,444,837.56       9,867,947.10         September 2019       4,218,475.98       14,405,273.83       9,827,329.86         October 2019       4,152,638.33       14,363,511.42       9,785,218.98         November 2019       4,082,985.91       14,319,580.82       9,741,644.52         December 2019       4,009,634.92       14,273,514.55       9,696,637.84         January 2020       3,932,708.78       14,225,347.17       9,650,231.52         February 2020       3,852,337.90       14,175,115.22       9,602,459.34         March 2020       3,681,816.86       14,068,613.39       9,553,356.25         April 2020       3,681,816.86       14,068,613.39       9,502,958.31         May 2020       3,591,960.10       14,012,426.08       9,451,302.61         June 2020       3,499,244.79       13,954,339.22       9,398,427.31         July 2020       3,403,832.16       13,894,398.52       9,344,371.50         August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
August 2019       4,280,390.09       14,444,837.56       9,867,947.10         September 2019       4,218,475.98       14,405,273.83       9,827,329.86         October 2019       4,152,638.33       14,363,511.42       9,785,218.98         November 2019       4,082,985.91       14,319,580.82       9,741,644.52         December 2019       4,009,634.92       14,273,514.55       9,696,637.84         January 2020       3,932,708.78       14,225,347.17       9,650,231.52         February 2020       3,768,659.39       14,175,115.22       9,602,459.34         March 2020       3,768,659.39       14,122,857.18       9,553,356.25         April 2020       3,681,816.86       14,068,613.39       9,502,958.31         May 2020       3,591,960.10       14,012,426.08       9,451,302.61         June 2020       3,499,244.79       13,954,339.22       9,398,427.31         July 2020       3,403,832.16       13,894,398.52       9,344,371.50         August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
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December 2019       4,009,634.92       14,273,514.55       9,696,637.84         January 2020       3,932,708.78       14,225,347.17       9,650,231.52         February 2020       3,852,337.90       14,175,115.22       9,602,459.34         March 2020       3,768,659.39       14,122,857.18       9,553,356.25         April 2020       3,681,816.86       14,068,613.39       9,502,958.31         May 2020       3,591,960.10       14,012,426.08       9,451,302.61         June 2020       3,499,244.79       13,954,339.22       9,398,427.31         July 2020       3,403,832.16       13,894,398.52       9,344,371.50         August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
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February 2020       3,852,337.90       14,175,115.22       9,602,459.34         March 2020       3,768,659.39       14,122,857.18       9,553,356.25         April 2020       3,681,816.86       14,068,613.39       9,502,958.31         May 2020       3,591,960.10       14,012,426.08       9,451,302.61         June 2020       3,499,244.79       13,954,339.22       9,398,427.31         July 2020       3,403,832.16       13,894,398.52       9,344,371.50         August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
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April 2020       3,681,816.86       14,068,613.39       9,502,958.31         May 2020       3,591,960.10       14,012,426.08       9,451,302.61         June 2020       3,499,244.79       13,954,339.22       9,398,427.31         July 2020       3,403,832.16       13,894,398.52       9,344,371.50         August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
May 20203,591,960.1014,012,426.089,451,302.61June 20203,499,244.7913,954,339.229,398,427.31July 20203,403,832.1613,894,398.529,344,371.50August 20203,305,888.7213,832,651.399,289,175.21September 20203,205,585.8813,769,146.819,232,879.33
June 2020       3,499,244.79       13,954,339.22       9,398,427.31         July 2020       3,403,832.16       13,894,398.52       9,344,371.50         August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
July 2020       3,403,832.16       13,894,398.52       9,344,371.50         August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
August 2020       3,305,888.72       13,832,651.39       9,289,175.21         September 2020       3,205,585.88       13,769,146.81       9,232,879.33
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August 2021 2,099,776.27 13,008,284.01 8,648,806.65
September 2021
October 2021
November 2021
December 2021
January 2022
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March 2022
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May 2022
June 2022
July 2022
August 2022
September 2022
October 2022

Distribution Date	Class MW	Classes QE and QL (in the aggregate)	Classes QG and QY (in the aggregate)
November 2022	\$1,002,480.45	\$12,070,805.72	\$ 7,947,523.69
December 2022	945,077.51	12,013,465.69	7,904,339.89
January 2023	889,458.99	11,956,733.65	7,861,577.42
February 2023	835,594.37	11,900,603.38	7,819,232.06
March 2023	783,453.61	11,845,068.75	7,777,299.71
April 2023	733,007.07	11,790,123.67	7,735,776.23
May 2023	684,225.52	11,735,762.11	7,694,657.58
June 2023	637,080.16	11,681,978.10	7,653,939.74
July 2023	591,542.59	11,628,765.75	7,613,618.72
August 2023	547,584.82	11,576,119.21	7,573,690.56
September 2023	505,179.26	11,524,032.70	7,534,151.38
October 2023	464,298.72	11,472,500.47	7,494,997.28
November 2023	424,916.36	11,421,516.87	7,456,224.44
December 2023	387,005.78	11,371,076.27	7,417,829.06
January 2024	350,540.91	11,321,173.13	7,379,807.38
February 2024	315,496.08	11,271,801.93	7,342,155.67
March 2024	281,845.97	11,222,957.23	7,304,870.25
April 2024	249,565.66	11,174,633.63	7,267,947.44
May 2024	218,630.55	11,126,825.80	7,231,389.19
June 2024	189,016.40	11,079,528.45	7,195,208.79
July 2024	160,699.33	11,032,736.34	7,159,402.25
August 2024	133,655.82	10,986,444.31	7,123,965.66
September 2024	107,862.65	10,940,647.21	7,089,140.56
October 2024	83,296.98	10,895,339.98	7,054,943.83
November 2024	59,936.26	10,850,517.58	7,021,364.38
December 2024	37,758.30	10,806,175.05	6,988,391.31
January 2025	16,741.23	10,762,307.45	6,956,013.92
February 2025	0.00	10,718,909.91	6,924,221.69
March 2025	0.00	10,675,977.60	6,893,004.28
April 2025	0.00	10,633,505.75	6,862,351.53
May 2025	0.00	10,591,489.62	6,832,253.47
June 2025	0.00	10,549,924.53	6,802,700.29
July 2025	0.00	10,508,806.83	6,773,682.35
August 2025		10,468,426.20	6,745,190.19
September 2025	0.00	10,428,769.71	6,717,214.49
October 2025	0.00	10,389,824.67	6,689,746.12
November 2025	0.00	10,351,578.61	6,662,776.10
December 2025	0.00	10,314,019.25	6,636,295.59
January 2026	0.00	10,277,134.56	6,610,295.93
February 2026	0.00	10,240,912.68	6,584,768.60
March 2026	0.00	10,205,341.98	6,559,705.22
April 2026	0.00	10,170,411.03	6,535,097.56
May 2026	0.00	10,136,108.59	6,510,937.54
June 2026	0.00	10,102,423.60	6,487,217.22
July 2026	0.00	10,069,345.23	6,463,928.79
August 2026	0.00	10,036,862.79	6,441,064.59
September 2026	0.00	10,004,965.82	6,418,617.08
October 2026	0.00	9,858,911.26	6,396,578.86
	0.00	7,000,711.20	0,070,070.00

Distribution Date	Class MW	Classes QE and QL (in the aggregate)	Classes QG and QY (in the aggregate)
November 2026	\$ 0.00	\$ 9,644,553.18	\$ 6,374,942.66
December 2026	0.00	9,434,721.61	6,353,701.32
January 2027	0.00	9,229,322.85	6,200,981.60
February 2027	0.00	9,028,265.13	6,043,032.22
March 2027	0.00	8,831,458.54	5,887,953.11
April 2027	0.00	8,638,815.00	5,742,006.07
May 2027	0.00	8,450,248.24	5,611,885.93
June 2027	0.00	8,265,673.75	5,484,131.79
July 2027	0.00	8,085,008.74	5,358,701.80
August 2027	0.00	7,908,172.12	5,235,554.79
September 2027	0.00	7,735,084.45	5,114,650.36
October 2027	0.00	7,565,667.92	4,995,948.78
November 2027	0.00	7,399,846.30	4,879,411.00
December 2027	0.00	7,237,544.94	4,764,998.70
January 2028	0.00	7,078,690.68	4,652,674.15
February 2028	0.00	6,923,211.90	4,542,400.34
March 2028	0.00	6,771,038.43	4,434,140.89
April 2028	0.00	6,622,101.51	4,327,860.02
May 2028	0.00	6,476,333.83	4,223,522.61
June 2028	0.00	6,333,669.42	4,121,094.15
July 2028	0.00	6,194,043.70	4,020,540.70
August 2028	0.00	6,057,393.38	3,921,828.95
September 2028	0.00	5,923,656.49	3,824,926.13
October 2028	0.00	5,792,772.30	3,729,800.08
November 2028	0.00	5,664,681.37	3,636,419.17
December 2028	0.00	5,539,325.44	3,544,752.35
January 2029	0.00	5,416,647.47	3,454,769.08
February 2029	0.00	5,296,591.57	3,366,439.38
March 2029	0.00	5,179,103.01	3,279,733.78
April 2029	0.00	5,064,128.18	3,194,623.32
May 2029	0.00	4,951,614.57	3,111,079.55
June 2029	0.00	4,841,510.76	3,029,074.53
July 2029	0.00	4,733,766.37	2,948,580.79
August 2029	0.00	4,628,332.06	2,869,571.34
September 2029	0.00	4,525,159.51	2,792,019.68
October 2029	0.00	4,424,201.38	2,715,899.75
November 2029	0.00	4,325,411.33	2,641,185.97
December 2029	0.00	4,228,743.94	2,567,853.19
January 2030	0.00	4,134,154.75	2,495,876.69
February 2030	0.00	4,041,600.21	2,425,232.23
March 2030	0.00	3,951,037.65	2,355,895.93
April 2030	0.00	3,862,425.30	2,287,844.37
May 2030	0.00	3,775,722.25	2,221,054.53
June 2030	0.00	3,690,888.41	2,155,503.80
July 2030	0.00	3,607,884.53	2,091,169.94
August 2030	0.00	3,526,672.19	2,028,031.14
September 2030	0.00	3,447,213.72	1,966,065.95
October 2030	0.00	3,369,472.26	1,905,253.29

Distribution Date	Class MW	Classes QE and QL (in the aggregate)	Classes QG and QY (in the aggregate)
November 2030	\$ 0.00	\$ 3,293,411.71	\$ 1,845,572.45
December 2030	0.00	3,218,996.69	1,787,003.11
January 2031	0.00	3,146,192.57	1,729,525.28
February 2031	0.00	3,074,965.43	1,673,119.32
March 2031	0.00	3,005,282.06	1,617,765.95
April 2031	0.00	2,937,109.91	1,563,446.23
May 2031	0.00	2,870,417.14	1,510,141.54
June 2031	0.00	2,805,172.54	1,457,833.58
July 2031	0.00	2,741,345.55	1,406,504.41
August 2031	0.00	2,678,906.26	1,356,136.36
September 2031	0.00	2,617,825.35	1,306,712.09
October 2031	0.00	2,558,074.13	1,258,214.59
November 2031	0.00	2,499,624.50	1,210,627.10
December 2031	0.00	2,442,448.93	1,163,933.20
January 2032	0.00	2,386,520.47	1,118,116.72
February 2032	0.00	2,331,812.73	1,073,161.81
March 2032	0.00	2,278,299.87	1,029,052.88
April 2032	0.00	2,225,956.57	985,774.62
May 2032	0.00	2,174,758.05	943,311.99
June 2032	0.00	2,124,680.04	901,650.22
July 2032	0.00	2,075,698.77	860,774.79
August 2032	0.00	2,027,790.97	820,671.43
September 2032	0.00	1,980,933.85	781,326.16
October 2032	0.00	1,935,105.09	742,725.20
November 2032	0.00	1,890,282.84	704,855.05
December 2032	0.00	1,846,445.71	667,702.42
January 2033	0.00	1,803,572.73	631,254.27
February 2033	0.00	1,761,643.40	595,497.81
March 2033	0.00	1,720,637.62	560,420.42
April 2033	0.00	1,680,535.71	526,009.77
May 2033	0.00	1,641,318.43	492,253.70
June 2033	0.00	1,602,966.90	459,140.28
July 2033	0.00	1,565,462.66	426,657.81
August 2033	0.00	1,528,787.62	394,794.77
September 2033	0.00	1,492,924.08	363,539.85
October 2033	0.00	1,457,854.71	332,881.97
November 2033	0.00	1,423,562.52	302,810.20
December 2033	0.00	1,390,030.90	273,313.83
January 2034	0.00	1,357,243.57	244,382.34
February 2034	0.00	1,325,184.60	216,005.40
March 2034	0.00	1,293,838.39	188,172.85
April 2034	0.00	1,263,189.66	160,874.72
May 2034	0.00	1,233,223.46	134,101.22
June 2034	0.00	1,203,925.15	107,842.72
July 2034	0.00	1,175,280.40	82,089.78
August 2034	0.00	1,147,275.15	56,833.12
September 2034	0.00	1,119,895.68	32,063.62
October 2034	0.00	1,093,128.54	7,772.32

Distribution Date	Class MW	Classes QE and QL (in the aggregate)	Classes QG and QY (in the aggregate)
November 2034	\$ 0.00	\$ 1,066,960.53	\$ 0.00
December 2034	0.00	1,041,378.79	0.00
January 2035	0.00	1,016,370.66	0.00
February 2035	0.00	991,923.81	0.00
March 2035	0.00	968,026.12	0.00
April 2035	0.00	944,665.75	0.00
May 2035	0.00	921,831.11	0.00
June 2035	0.00	899,510.82	0.00
July 2035	0.00	877,693.80	0.00
August 2035	0.00	856,369.14	0.00
September 2035	0.00	835,526.19	0.00
October 2035	0.00	815,154.54	0.00
November 2035	0.00	795,243.97	0.00
December 2035	0.00	775,784.48	0.00
January 2036	0.00	756,766.29	0.00
February 2036	0.00	738,179.83	0.00
March 2036	0.00	720,015.72	0.00
April 2036	0.00	702,264.78	0.00
May 2036	0.00	684,918.03	0.00
June 2036	0.00	667,966.68	0.00
July 2036	0.00	651,402.11	0.00
August 2036	0.00	635,215.91	0.00
September 2036	0.00	619,399.82	0.00
October 2036	0.00	603,945.77	0.00
November 2036	0.00	588,845.86	0.00
December 2036	0.00	574,092.35	0.00
January 2037	0.00	559,677.67	0.00
February 2037	0.00	545,594.42	0.00
March 2037	0.00	531,835.33	0.00
April 2037	0.00	518,393.30	0.00
May 2037	0.00	505,261.39	0.00
June 2037	0.00	492,432.80	0.00
July 2037	0.00	479,900.87	0.00
August 2037	0.00	467,659.08	0.00
September 2037	0.00	455,701.05	0.00
October 2037	0.00	444,020.55	0.00
November 2037	0.00	432,611.47	0.00
December 2037	0.00	421,467.82	0.00
January 2038	0.00	410,583.75	0.00
February 2038	0.00	399,953.55	0.00
March 2038	0.00	389,571.60	0.00
April 2038	0.00	379,432.41	0.00
May 2038	0.00	369,530.63	0.00
•	0.00	359,860.99	0.00
June 2038	0.00	350,418.37	0.00
July 2038	0.00	341,197.71	0.00
August 2038	0.00	332,194.11	0.00
September 2038	0.00		0.00
October 2038	0.00	323,402.75	0.00

Distribution Date	Class MW	Classes QE and QL (in the aggregate)	Classes QG and QY (in the aggregate)
November 2038	\$ 0.00	\$ 314,818.90	\$ 0.00
December 2038	0.00	306,437.95	0.00
January 2039	0.00	298,255.40	0.00
February 2039	0.00	290,266.82	0.00
March 2039	0.00	282,467.88	0.00
April 2039	0.00	274,854.36	0.00
May 2039	0.00	267,422.12	0.00
June 2039	0.00	260,167.10	0.00
July 2039	0.00	253,085.35	0.00
August 2039	0.00	246,172.98	0.00
September 2039	0.00	239,426.20	0.00
October 2039	0.00	232,841.29	0.00
November 2039	0.00	226,414.62	0.00
December 2039	0.00	220,142.65	0.00
January 2040	0.00	214,021.88	0.00
February 2040	0.00	208,048.91	0.00
March 2040	0.00	202,220.42	0.00
April 2040	0.00	196,533.15	0.00
May 2040	0.00	190,983.91	0.00
June 2040	0.00	185,569.58	0.00
July 2040	0.00	180,287.12	0.00
August 2040	0.00	175,133.52	0.00
September 2040	0.00	170,105.89	0.00
October 2040	0.00	165,201.36	0.00
November 2040	0.00	160,417.13	0.00
December 2040	0.00	155,750.47	0.00
January 2041	0.00	151,198.71	0.00
February 2041	0.00	146,759.23	0.00
March 2041	0.00	142,429.47	0.00
April 2041	0.00	138,206.92	0.00
May 2041	0.00	134,089.15	0.00
June 2041	0.00	130,073.74	0.00
July 2041	0.00	126,158.37	0.00
August 2041	0.00	122,340.73	0.00
September 2041	0.00	118,618.58	0.00
October 2041	0.00	114,989.73	0.00
November 2041	0.00	111,452.04	0.00
December 2041	0.00	108,003.41	0.00
January 2042	0.00	104,641.77	0.00
February 2042	0.00	101,365.14	0.00
March 2042	0.00	98,171.53	0.00
April 2042	0.00	95,059.04	0.00
May 2042	0.00	92,025.79	0.00
•	0.00	89,069.93	0.00
June 2042	0.00	86,189.67	0.00
July 2042	0.00	83,383.26	0.00
August 2042	0.00	80,648.97	0.00
September 2042	0.00		0.00
OCIODEI 2042	0.00	77,985.13	0.00

Distribution Date	Class MW	Classes QE and QL (in the aggregate)	Classes QG and QY (in the aggregate)
November 2042	\$ 0.00	\$ 75,390.09	\$ 0.00
December 2042	0.00	72,862.25	0.00
January 2043	0.00	70,400.03	0.00
February 2043	0.00	68,001.89	0.00
March 2043	0.00	65,666.35	0.00
April 2043	0.00	63,391.91	0.00
May 2043	0.00	61,177.16	0.00
June 2043	0.00	59,020.68	0.00
July 2043	0.00	56,921.10	0.00
August 2043	0.00	54,877.07	0.00
September 2043	0.00	52,887.29	0.00
October 2043	0.00	50,950.46	0.00
November 2043	0.00	49,065.34	0.00
December 2043	0.00	47,230.70	0.00
January 2044	0.00	45,445.33	0.00
February 2044	0.00	43,708.06	0.00
March 2044	0.00	42,017.74	0.00
April 2044	0.00	40,373.26	0.00
May 2044	0.00	38,773.52	0.00
June 2044	0.00	37,217.44	0.00
July 2044	0.00	35,703.98	0.00
August 2044	0.00	34,232.11	0.00
September 2044	0.00	32,800.83	0.00
October 2044	0.00	31,409.17	0.00
November 2044	0.00	30,056.16	0.00
December 2044	0.00	28,740.87	0.00
January 2045	0.00	27,462.39	0.00
February 2045	0.00	26,219.82	0.00
March 2045	0.00	25,012.30	0.00
April 2045	0.00	23,838.95	0.00
May 2045	0.00	22,698.97	0.00
June 2045	0.00	21,591.52	0.00
July 2045	0.00	20,515.81	0.00
August 2045	0.00	19,471.06	0.00
September 2045	0.00	18,456.51	0.00
October 2045	0.00	17,471.42	0.00
November 2045	0.00	16,515.06	0.00
December 2045	0.00	15,586.71	0.00
January 2046	0.00	14,685.70	0.00
February 2046	0.00	13,811.33	0.00
March 2046	0.00	12,962.95	0.00
April 2046	0.00	12,139.91	0.00
May 2046	0.00	11,341.57	0.00
June 2046	0.00	10,567.32	0.00
July 2046	0.00	9,816.55	0.00
August 2046	0.00	9,088.67	0.00
September 2046	0.00	8,383.11	0.00
October 2046	0.00	7,699.31	0.00

Distribution Date	Class MV	v	es QE and QL e aggregate)	Classes (in the	QG and QY aggregate)
November 2046	\$ (	0.00	\$ 7,036.71	\$	0.00
December 2046	(	0.00	6,394.77		0.00
January 2047	(	00.0	5,772.98		0.00
February 2047	(	0.00	5,170.82		0.00
March 2047	(	0.00	4,587.78		0.00
April 2047	(	00.0	4,023.38		0.00
May 2047	(	0.00	3,477.14		0.00
June 2047	(	0.00	2,948.59		0.00
July 2047	(	0.00	2,437.28		0.00
August 2047	(	0.00	1,942.77		0.00
September 2047	(	0.00	1,464.61		0.00
October 2047	(	0.00	1,002.38		0.00
November 2047	(	0.00	555.67		0.00
December 2047	(	0.00	124.07		0.00
January 2048 and thereafter	(	0.00	0.00		0.00

	Classes CM, CN and CP	Classes JA and Z	Classes EA and EL
Distribution Date	(in the aggregate)	(in the aggregate)	(in the aggregate)
Initial Balance	\$32,761,533.00	\$71,472,000.00	\$22,366,377.00
December 2018	32,673,424.41	71,237,616.26	22,313,540.40
January 2019	32,573,842.65	70,976,373.51	22,251,868.23
February 2019	32,462,835.11	70,688,352.90	22,181,387.02
March 2019	32,340,459.53	70,373,659.45	22,102,132.35
April 2019	32,206,783.89	70,032,421.98	22,014,148.80
May 2019	32,061,886.46	69,664,793.13	21,917,489.99
June 2019	31,905,855.67	69,270,949.22	21,812,218.55
July 2019	31,738,790.08	68,851,090.15	21,698,406.02
August 2019	31,560,798.29	68,405,439.26	21,576,132.84
September 2019	31,371,998.83	67,934,243.11	21,445,488.27
October 2019	31,172,520.05	67,437,771.27	21,306,570.27
November 2019	30,962,499.99	66,916,316.05	21,159,485.43
December 2019	30,742,086.22	66,370,192.20	21,004,348.82
January 2020	30,511,435.71	65,799,736.58	20,841,283.88
February 2020	30,270,714.63	65,205,307.81	20,670,422.24
March 2020	30,020,098.13	64,587,285.84	20,491,903.57
April 2020	29,759,770.23	63,946,071.52	20,305,875.40
May 2020	29,489,923.48	63,282,086.16	20,112,492.91
June 2020	29,210,758.84	62,595,771.02	19,911,918.76
July 2020	28,922,485.34	61,887,586.75	19,704,322.81
August 2020	28,625,319.92	61,158,012.87	19,489,881.94
September 2020	28,319,487.05	60,407,547.16	19,268,779.77
October 2020	28,005,218.56	59,636,705.05	19,041,206.40
November 2020	27,682,753.26	58,846,018.95	18,807,358.17
December 2020	27,352,336.67	58,036,037.61	18,567,437.33
January 2021	27,014,220.73	57,207,325.42	18,321,651.79
February 2021	26,668,663.43	56,360,461.65	18,070,214.78
March 2021	26,326,478.84	55,496,039.77	17,813,344.56
April 2021	25,987,635.03	54,614,666.61	17,559,343.96
May 2021	25,652,100.39	53,741,190.40	17,308,181.73
June 2021	25,319,843.58	52,875,532.14	17,059,826.94
July 2021	24,990,833.55	52,017,613.58	16,814,249.03
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August 2021	24,665,039.57	51,167,357.17	16,571,417.73
September 2021	24,342,431.16	50,324,686.12	16,331,303.12
October 2021	24,022,978.16	49,489,524.33	16,093,875.59
November 2021	23,706,650.65	48,661,796.42	15,859,105.85
December 2021	23,393,419.03	47,841,427.70	15,626,964.94
January 2022	23,083,253.96	47,028,344.20	15,397,424.20
February 2022	22,776,126.36	46,222,472.63	15,170,455.26
March 2022	22,472,007.45	45,423,740.36	14,946,030.08
April 2022	22,170,868.69	44,632,075.46	14,724,120.92
May 2022	21,872,681.83	43,847,406.68	14,504,700.33
June 2022	21,577,418.87	43,069,663.42	14,287,741.16
July 2022	21,285,052.07	42,298,775.72	14,073,216.54
August 2022	20,995,553.96	41,534,674.30	13,861,099.91
September 2022	20,708,897.31	40,777,290.52	13,651,364.98

Distribution Date	Classes CM, CN and CP (in the aggregate)	Classes JA and Z (in the aggregate)	Classes EA and EL (in the aggregate)
October 2022	\$20,425,055.17	\$40,026,556.37	\$13,443,985.76
November 2022	20,144,000.82	39,282,404.48	13,238,936.51
December 2022	19,865,707.80	38,544,768.10	13,036,191.79
January 2023	19,590,149.88	37,813,581.11	12,835,726.43
February 2023	19,317,301.11	37,088,778.01	12,637,515.54
March 2023	19,047,135.74	36,370,293.89	12,441,534.48
April 2023	18,779,628.30	35,658,064.47	12,247,758.87
May 2023	18,514,753.53	34,952,026.04	12,056,164.63
June 2023	18,252,486.41	34,252,115.52	11,866,727.90
July 2023	17,992,802.17	33,558,270.37	11,679,425.10
August 2023	17,735,676.27	32,870,428.68	11,494,232.89
September 2023	17,481,084.37	32,188,529.08	11,311,128.19
October 2023	17,229,002.39	31,512,510.79	11,130,088.17
November 2023	16,979,406.46	30,842,313.58	10,951,090.23
December 2023	16,732,272.93	30,177,877.81	10,774,112.04
January 2024	16,487,578.40	29,519,144.36	10,599,131.48
February 2024	16,245,299.64	28,866,054.67	10,426,126.71
March 2024	16,005,413.68	28,218,550.74	10,255,076.07
April 2024	15,767,897.75	27,576,575.10	10,085,958.19
May 2024	15,532,729.29	26,946,122.73	9,918,751.89
June 2024	15,299,885.94	26,329,803.52	9,753,436.23
July 2024	15,069,345.58	25,727,305.09	9,589,990.51
August 2024	14,841,086.26	25,138,321.92	9,428,394.23
September 2024	14,615,086.27	24,562,555.16	9,268,627.13
October 2024	14,391,324.09	23,999,712.51	9,110,669.16
November 2024	14,169,778.38	23,449,508.03	8,954,500.48
December 2024	13,950,428.04	22,911,662.09	8,800,101.48
January 2025	13,733,252.13	22,385,901.14	8,647,452.75
February 2025	13,518,229.93	21,871,957.63	8,496,535.08
March 2025	13,305,340.91	21,369,569.88	8,347,329.50
April 2025	13,094,564.72	20,878,481.92	8,199,817.22
May 2025	12,885,881.21	20,398,443.40	8,053,979.64
June 2025	12,679,270.42	19,929,209.47	7,909,798.40
July 2025	12,474,712.57	19,470,540.61	7,767,255.30
August 2025	12,272,188.08	19,022,202.58	7,627,010.60
September 2025	12,071,677.53	18,583,966.26	7,489,214.40
October 2025	11,873,161.71	18,155,607.55	7,353,824.82
November 2025	11,676,621.56	17,736,907.28	7,220,800.72
December 2025	11,482,038.23	17,327,651.08	7,090,101.60
January 2026	11,289,962.36	16,927,629.27	6,961,687.70
February 2026	11,100,966.77	16,536,636.80	6,835,519.89
March 2026	10,915,003.28	16,154,473.09	6,711,559.73
April 2026	10,732,024.47	15,780,941.97	6,589,769.40
May 2026	10,551,983.63	15,415,851.60	6,470,111.74
June 2026	10,374,834.78	15,059,014.33	6,352,550.22
July 2026	10,200,532.65	14,710,246.63	6,237,048.91
August 2026	10,029,032.66	14,369,369.02	6,123,572.50
	10,027,032.00	,507,507.04	U, == U, U / E, JU

Distribution Date	Classes CM, CN and CP (in the aggregate)	Classes JA and Z (in the aggregate)	Classes EA and EL (in the aggregate)
September 2026	\$ 9,860,290.93	\$14,036,205.94	\$ 6,012,086.26
October 2026	9,694,264.24	13,710,585.72	5,902,556.08
November 2026	9,530,910.05	13,392,340.43	5,794,948.40
December 2026	9,370,186.46	13,081,305.85	5,689,230.23
January 2027	9,212,052.24	12,777,321.38	5,585,369.13
February 2027	9,056,466.76	12,480,229.93	5,483,333.25
March 2027	8,903,390.06	12,189,877.88	5,383,091.22
April 2027	8,752,782.76	11,906,114.99	5,284,612.24
May 2027	8,604,606.10	11,628,794.34	5,187,866.03
June 2027	8,458,821.93	11,357,772.20	5,092,822.81
July 2027	8,315,392.67	11,092,908.06	4,999,453.29
August 2027	8,174,281.33	10,834,064.47	4,907,728.72
September 2027	8,035,451.50	10,581,107.02	4,817,620.79
October 2027	7,898,867.30	10,333,904.26	4,729,101.70
November 2027	7,764,493.44	10,092,327.63	4,642,144.10
December 2027	7,632,295.17	9,856,251.42	4,556,721.13
January 2028	7,502,238.24	9,625,552.68	4,472,806.36
February 2028	7,374,288.98	9,400,111.16	4,390,373.82
March 2028		9,400,111.10	4,309,397.97
	7,248,414.21		4,229,853.71
April 2028	7,124,581.27	8,964,532.08	, ,
May 2028	7,002,758.00	8,754,167.07	4,151,716.38
June 2028	6,882,912.75	8,548,604.30	4,074,961.71
July 2028	6,765,014.35	8,347,736.22	3,999,565.87
August 2028	6,649,032.11	8,151,457.67	3,925,505.40
September 2028	6,534,935.82	7,959,665.81	3,852,757.27
October 2028	6,422,695.73	7,772,260.05	3,781,298.83
November 2028	6,312,282.57	7,589,142.06	3,711,107.82
December 2028	6,203,667.50	7,410,215.66	3,642,162.33
January 2029	6,096,822.14	7,235,386.80	3,574,440.87
February 2029	5,991,718.55	7,064,563.51	3,507,922.26
March 2029	5,888,329.20	6,897,655.86	3,442,585.73
April 2029	5,786,627.03	6,734,575.91	3,378,410.84
May 2029	5,686,585.35	6,575,237.65	3,315,377.49
June 2029	5,588,177.92	6,419,557.00	3,253,465.94
July 2029	5,491,378.90	6,267,451.72	3,192,656.76
August 2029	5,396,162.83	6,118,841.40	3,132,930.88
September 2029	5,302,504.67	5,973,647.41	3,074,269.54
October 2029	5,210,379.76	5,831,792.87	3,016,654.29
November 2029	5,119,763.82	5,693,202.60	2,960,067.01
December 2029	5,030,632.94	5,557,803.07	2,904,489.89
January 2030	4,942,963.59	5,425,522.40	2,849,905.40
February 2030	4,856,732.61	5,296,290.31	2,796,296.34
March 2030	4,771,917.19	5,170,038.06	2,743,645.77
April 2030		5,046,698.45	2,691,937.07
11pin 2030	4,088,494.88	2,010,070,17	
•	4,688,494.88 4,606,443.57		
May 2030	4,688,494.88 4,606,443.57 4,525,741.51	4,926,205.75 4,808,495.73	2,641,153.87 2,591,280.12

Distribution Date	Classes CM, CN and CP (in the aggregate)	Classes JA and Z (in the aggregate)	Classes EA and EL (in the aggregate)
August 2030	\$ 4,368,299.76	\$ 4,581,173.77	\$ 2,494,198.00
September 2030	4,291,518.23	4,471,440.33	2,446,958.84
October 2030	4,216,002.22	4,364,246.51	2,400,567.52
November 2030	4,141,731.63	4,259,534.87	2,355,009.29
December 2030	4,068,686.65	4,157,249.27	2,310,269.65
January 2031	3,996,847.77	4,057,334.81	2,266,334.36
February 2031	3,926,195.79	3,959,737.82	2,223,189.40
March 2031	3,856,711.83	3,864,405.80	2,180,821.02
April 2031	3,788,377.28	3,771,287.44	2,139,215.68
May 2031	3,721,173.82	3,680,332.58	2,098,360.07
June 2031	3,655,083.43	3,591,492.17	2,058,241.12
July 2031	3,590,088.37	3,504,718.23	2,018,845.99
August 2031	3,526,171.15	3,419,963.89	1,980,162.04
September 2031	3,463,314.58	3,337,183.29	1,942,176.86
October 2031	3,401,501.73	3,256,331.61	1,904,878.24
November 2031	3,340,715.94	3,177,365.03	1,868,254.19
December 2031	3,280,940.79	3,100,240.71	1,832,292.92
January 2032	3,222,160.14	3,024,916.75	1,796,982.85
February 2032	3,164,358.10	2,951,352.21	1,762,312.58
March 2032	3,107,519.00	2,879,507.04	1,728,270.92
	3,051,627.44		1,694,846.88
April 2032	, ,	2,809,342.11	, ,
May 2032	2,996,668.27	2,740,819.13	1,662,029.63
June 2032	2,942,626.54	2,673,900.71	1,629,808.54
July 2032	2,889,487.57	2,608,550.26	1,598,173.18
August 2032	2,837,236.89	2,544,732.02	1,567,113.27
September 2032	2,785,860.26	2,482,411.05	1,536,618.73
October 2032	2,735,343.66	2,421,553.15	1,506,679.62
November 2032	2,685,673.30	2,362,124.93	1,477,286.22
December 2032	2,636,835.59	2,304,093.71	1,448,428.93
January 2033	2,588,817.17	2,247,427.58	1,420,098.34
February 2033	2,541,604.87	2,192,095.31	1,392,285.19
March 2033	2,495,185.74	2,138,066.39	1,364,980.39
April 2033	2,449,547.03	2,085,311.00	1,338,175.01
May 2033	2,404,676.19	2,033,799.96	1,311,860.24
June 2033	2,360,560.87	1,983,504.78	1,286,027.46
July 2033	2,317,188.89	1,934,397.58	1,260,668.18
August 2033	2,274,548.30	1,886,451.14	1,235,774.06
September 2033	2,232,627.31	1,839,638.81	1,211,336.91
October 2033	2,191,414.32	1,793,934.57	1,187,348.66
November 2033	2,150,897.91	1,749,312.97	1,163,801.40
December 2033	2,111,066.85	1,705,749.14	1,140,687.34
January 2034	2,071,910.07	1,663,218.77	1,117,998.85
February 2034	2,033,416.70	1,621,698.09	1,095,728.40
March 2034	1,995,576.01	1,581,163.87	1,073,868.61
April 2034	1,958,377.46	1,541,593.40	1,052,412.21
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May 2034	1,921,810.66	1,502,964.49	1,031,352.08

Distribution Date	Classes CM, CN and CP (in the aggregate)	Classes JA and Z (in the aggregate)	Classes EA and EL (in the aggregate)
July 2034	\$ 1,850,531.61	\$ 1,428,445.03	\$ 990,392.69
August 2034	1,815,799.40	1,392,512.55	970,479.76
September 2034	1,781,659.03	1,357,437.73	950,935.78
October 2034	1,748,100.90	1,323,200.77	931,754.19
November 2034	1,715,115.57	1,289,782.31	912,928.57
December 2034	1,682,693.75	1,257,163.43	894,452.61
January 2035	1,650,826.29	1,225,325.64	876,320.09
February 2035	1,619,504.20	1,194,250.86	858,524.93
March 2035	1,588,718.62	1,163,921.43	841,061.12
April 2035	1,558,460.82	1,134,320.08	823,922.77
May 2035	1,528,722.23	1,105,429.94	807,104.10
June 2035	1,499,494.40	1,077,234.51	790,599.42
July 2035	1,470,769.00	1,049,717.68	774,403.13
August 2035	1,442,537.87	1,022,863.68	758,509.76
September 2035	1,414,792.95	996,657.12	742,913.88
October 2035	1,387,526.32	971,082.95	727,610.21
November 2035	1,360,730.16	946,126.47	712,593.53
December 2035	1,334,396.81	921,773.30	697,858.72
January 2036	1,308,518.71	898,009.39	683,400.74
February 2036	1,283,088.42	874,821.01	669,214.65
March 2036	1,258,098.62	852,194.76	655,295.58
April 2036	1,233,542.11	830,117.50	641,638.77
May 2036	1,209,411.80	808,576.44	628,239.51
June 2036	1,185,700.72	787,559.05	615,093.20
July 2036	1,162,401.99	767,053.09	602,195.31
August 2036	1,139,508.86	747,046.61	589,541.37
September 2036	1,117,014.68	727,527.91	577,127.03
October 2036	1,094,912.90	708,485.58	564,947.97
November 2036	1,073,197.08	689,908.46	552,999.97
December 2036	1,051,860.89	671,785.64	541,278.89
January 2037	1,030,898.07	654,106.46	529,780.64
February 2037	1,010,302.50	636,860.52	518,501.21
March 2037	990,068.14	620,037.63	507,436.67
April 2037	970,189.02	603,627.85	496,583.15
May 2037	950,659.31	587,621.47	485,936.84
June 2037	931,473.24	572,009.00	475,494.02
July 2037	912,625.15	556,781.15	465,251.00
August 2037	894,109.46	541,928.86	455,204.19
September 2037	875,920.68	527,443.28	445,350.04
October 2037	858,053.41	513,315.75	435,685.07
November 2037	840,502.34	499,537.82	426,205.85
December 2037	823,262.23	486,101.22	416,909.03
January 2038	806,327.93	472,997.88	407,791.31
February 2038	789,694.39	460,219.92	398,849.43
March 2038	773,356.62	447,759.62	390,080.22
April 2038	757,309.71	435,609.47	381,480.54
May 2038	741,548.84	423,762.09	373,047.31
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Distribution Date		Classes CM, CN and CP (in the aggregate)		Classes JA and Z (in the aggregate)		Classes EA and EL (in the aggregate)	
June 2038	\$	726,069.26	\$	412,210.32	\$	364,777.51	
July 2038	7	710,866.28	7	400,947.12	,	356,668.17	
August 2038		695,935.33		389,965.64		348,716.38	
September 2038		681,271.86		379,259.17		340,919.25	
October 2038		666,871.43		368,821.17		333,273.99	
November 2038		652,729.65		358,645.23		325,777.81	
December 2038		638,842.22		348,725.12		318,428.01	
January 2039		625,204.88		339,054.73		311,221.91	
February 2039		611,813.47		329,628.08		304,156.88	
March 2039		598,663.88		320,439.37		297,230.36	
April 2039		585,752.06		311,482.89		290,439.79	
May 2039		573,074.03		302,753.08		283,782.71	
June 2039		560,625.89		294,244.52		277,256.66	
July 2039		548,403.79		285,951.89		270,859.24	
August 2039		536,403.92		277,870.02		264,588.10	
September 2039		524,622.57		269,993.85		258,440.91	
October 2039		513,056.07		262,318.42		252,415.41	
November 2039		501,700.81		254,838.91		246,509.34	
December 2039		490,553.23		247,550.60		240,720.52	
January 2040		479,609.84		240,448.88		235,046.79	
February 2040		468,867.21		233,529.26		229,486.03	
March 2040		458,321.95		226,787.32		224,036.16	
April 2040		447,970.73		220,218.78		218,695.12	
May 2040		437,810.28		213,819.45		213,460.91	
June 2040		427,837.38		207,585.22		208,331.56	
July 2040		418,048.85		201,512.10		203,305.13	
August 2040		408,441.58		195,596.17		198,379.71	
September 2040		399,012.50		189,833.63		193,553.43	
October 2040		389,758.60		184,220.73		188,824.45	
November 2040		380,676.89		178,753.85		184,190.97	
December 2040		371,764.46		173,429.43		179,651.22	
January 2041		363,018.44		168,243.99		175,203.45	
February 2041		354,435.99		163,194.14		170,845.95	
March 2041		346,014.34		158,276.58		166,577.04	
April 2041		337,750.74		153,488.06		162,395.07	
May 2041		329,642.50		148,825.43		158,298.43	
June 2041		321,686.97		144,285.60		154,285.51	
July 2041		313,881.56		139,865.57		150,354.75	
August 2041		306,223.68		135,562.39		146,504.62	
September 2041		298,710.82		131,373.20		142,733.61	
October 2041		291,340.50		127,295.18		139,040.24	
November 2041		284,110.28		123,325.59		135,423.04	
December 2041		277,017.75		119,461.78		131,880.60	
January 2042		270,060.55		115,701.11		128,411.51	
February 2042		263,236.36		112,041.06		125,014.38	
March 2042		256,542.89		108,479.12		121,687.87	
April 2042		249,977.90		105,012.86		118,430.64	

Distribution Date	Classes CM, CN and CP the aggregate)	Cla	asses JA and Z the aggregate)	sses EA and EL the aggregate)
May 2042	\$ 243,539.16	\$	101,639.92	\$ 115,241.39
June 2042	237,224.50		98,357.98	112,118.83
July 2042	231,031.79		95,164.77	109,061.71
August 2042	224,958.91		92,058.10	106,068.78
September 2042	219,003.80		89,035.79	103,138.84
October 2042	213,164.41		86,095.76	100,270.69
November 2042	207,438.75		83,235.93	97,463.16
December 2042	201,824.83		80,454.32	94,715.09
January 2043	196,320.73		77,748.96	92,025.36
February 2043	190,924.53		75,117.93	89,392.85
March 2043	185,634.35		72,559.38	86,816.48
April 2043	180,448.36		70,071.48	84,295.18
May 2043	175,364.73		67,652.45	81,827.89
June 2043	170,381.68		65,300.56	79,413.59
July 2043	165,497.45		63,014.12	77,051.26
August 2043	160,710.32		60,791.47	74,739.90
September 2043	156,018.59		58,631.00	72,478.53
October 2043	151,420.58		56,531.12	70,266.21
November 2043	146,914.66		54,490.32	68,101.98
December 2043	142,499.20		52,507.07	65,984.93
January 2044	138,172.61		50,579.93	63,914.13
February 2044	133,933.34		48,707.46	61,888.71
March 2044	129,779.84		46,888.26	59,907.78
April 2044	125,710.60		45,120.98	57,970.48
May 2044	121,724.13		43,404.28	56,075.98
June 2044	117,818.97		41,736.87	54,223.44
July 2044	113,993.69		40,117.49	52,412.04
August 2044	110,246.86		38,544.89	50,640.99
September 2044	106,577.09		37,017.88	48,909.51
October 2044	100,377.09		35,535.28	47,216.82
November 2044	99,463.31		34,095.94	45,562.17
December 2044	96,016.61		32,698.74	43,944.82
January 2045	90,010.01		31,342.59	42,364.03
February 2045	92,041.04 89,337.12		30,026.43	42,304.03
				,
March 2045	86,101.78		28,749.22	39,309.30
April 2045	82,934.39		27,509.93	37,833.97
May 2045	79,833.74		26,307.58	36,392.42
June 2045	76,798.61		25,141.22	34,983.98
July 2045	73,827.84		24,009.88	33,608.02
August 2045	70,920.27		22,912.66	32,263.87
September 2045	68,074.76		21,848.66	30,950.92
October 2045	65,290.20		20,817.00	29,668.55
November 2045	62,565.47		19,816.83	28,416.15
December 2045	59,899.51		18,847.32	27,193.13
January 2046	57,291.24		17,907.66	25,998.90
February 2046	54,739.62		16,997.06	24,832.89
March 2046	52,243.62		16,114.74	23,694.54

Distribution Date	Classes CM, CN and CP (in the aggregate)		Classes JA and Z (in the aggregate)		Classes EA and EL (in the aggregate)	
April 2046	\$ 49,80	2.24	\$	15,259.94	\$ 22,583.29	
May 2046	47,41	4.46		14,431.95	21,498.61	
June 2046	45,07	9.33		13,630.03	20,439.96	
July 2046	42,79	5.87		12,853.49	19,406.82	
August 2046	40,56	3.14		12,101.65	18,398.68	
September 2046	38,38	0.21		11,373.85	17,415.04	
October 2046	36,24	6.18		10,669.43	16,455.39	
November 2046	34,16	0.13		9,987.77	15,519.26	
December 2046	32,12	1.19		9,328.25	14,606.17	
January 2047	30,12	8.49		8,690.26	13,715.66	
February 2047	28,18	1.17		8,073.22	12,847.27	
March 2047	26,27	8.40		7,476.57	12,000.54	
April 2047	24,41	9.36		6,899.74	11,175.03	
May 2047	22,60	3.22		6,342.18	10,370.32	
June 2047	20,82	9.20		5,803.38	9,585.98	
July 2047	19,09	6.51		5,282.82	8,821.60	
August 2047	17,40	4.37		4,779.98	8,076.75	
September 2047	15,75	2.04		4,294.39	7,351.04	
October 2047	14,13	8.77		3,825.56	6,644.09	
November 2047	12,56			3,373.02	5,955.49	
December 2047	11,02	6.49		2,936.33	5,284.88	
January 2048	9,52	6.05		2,515.03	4,631.87	
February 2048	8,06	1.82		2,108.71	3,996.12	
March 2048	6,63			1,716.93	3,377.24	
April 2048	5,23	9.25		1,339.29	2,774.90	
May 2048	3,87	9.58		975.39	2,188.76	
June 2048	2,55	3.45		624.83	1,618.46	
July 2048	1,26	0.23		287.24	1,063.69	
August 2048		0.00		0.00	524.10	
September 2048 and thereafter		0.00		0.00	0.00	

## **Underlying Certificates**

Ginnie Mae I or II	
Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	11 6 8 8 17 17
Approximate Weighted Average Remaining Term to Maturity of Mortgage Loans (in months)(3)	348 353 351 351 341 341
Approximate Weighted Average Coupon of Mortgage Loans(3)	3.901% 4.455 4.480 3.923 3.912 5.948 5.948
Percentage of Class in Trust	39.0133324382% 100.0000000000 9.8685719904 75.0072937806 38.00854051201 100.000000000000 0.0419450000
Principal or Notional Balance in Trust	\$ 6,800,000 9,999,000 5,984,174 6,283,361 4,282,238 14,449,470 25,000
Underlying Certificate Factor(2)	0.78007253 1.00000000 0.99371880 1.00000000 0.98915971 0.99340113
Original Principal or Notional Balance of Class	\$22,344,000 9,999,000 61,022,000 8,377,000 11,367,000 14,545,454 60,000,000
Principal Type(1)	SUP PAC/AD SEQ PAC/AD PAC/AD NTL(PT) PT
Final Distribution Date	January 2048 May 2048 March 2045 November 2047 November 2045 October 2048
Interest Type(1)	FIX/Z FIX FIX FIX FIX FIX/IO FIX
Interest	3.0% 3.0 3.0 3.0 3.0 5.5 5.5
CUSIP	38380URR6 38380WF20 38380WAQ2 38380VUY9 38381ADC7 38381ADU7
Issue Date	January 30, 2018 May 30, 2018 September 28, 2018 April 30, 2018 September 28, 2018 October 30, 2018 October 30, 2018
Class	ZM(5) MY(4)(5) MQ(4)(5) JL(5) HK(5) HK (5) KB (4)
Series	2018-015 2018-070 2018-120 2018-120 2018-138 2018-138
Issuer	Ginnie Mae Ginnie Mae Ginnie Mae Ginnie Mae Ginnie Mae Ginnie Mae
Trust Asset Group or Subgroup	4 11 11 12 12 14A 14B

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

Underlying Certificate Factors are as of November 2018.

Based on information as of November 2018.

MX Class.

More than 10% of the Mortgage Loans underlying this Underlying Certificate may be higher balance Mortgage Loans. See "Risk Factors" in this Supplement. 5 6 6 6



\$1,129,754,499

**Government National Mortgage Association** 

## **GINNIE MAE**®

Guaranteed REMIC
Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2018-154

OFFERING CIRCULAR SUPPLEMENT November 21, 2018

Wells Fargo Securities Tribal Capital Markets