

# \$1,099,567,113 Government National Mortgage Association GINNIE MAE®

# Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2019-085

#### 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 July 30, 2019.

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

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

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 1						
A(1)	\$ 25,991,640	2.0%	SEQ	FIX	38381XJK3	December 2048
AF(1)	32,489,550	(5)	SEQ	FLT	38381XJL1	December 2048
AS(1)	32,489,550 1,165,284	(5) 2.0	NTL(SEQ) SEQ	INV/IO FIX	38381XJM9 38381XJN7	December 2048
BF(1)	1,456,603	(5)	SEQ	FLT	38381XJP2	July 2049
BS(1)	1,456,603	(5)	NTL(SEQ)	INV/IO	38381XJQ0	July 2049 July 2049 July 2049
Security Group 2					,	
IK	2,814,709	4.0	NTL(SC/PT)	FIX/IO	38381XJR8	December 2048
KL	3,821,000	2.5	SC/SEQ	FIX	38381XJS6	December 2048
KM	18,696,675	2.5	SC/SEQ	FIX	38381XJT4	December 2048
Security Group 3						
KA	30,000,000	2.5	SC/SEQ/AD	FIX	38381XJU1	September 2046
KB(1)	6,358,487	3.0	SC/PT	FIX	38381XJV9	September 2042
KC(1)	4,682,131	3.0	SC/PT	FIX	38381XJW7	June 2043
KZ	1,392,437	2.5	SC/SEQ	FIX/Z	38381XJX5	September 2046
Security Group 4				F777.07.C		7.1.0040
IO	2,500,000	4.0	NTL(PT)	FIX/IO	38381XJY3	July 2049
MA	10,000,000	3.0	PT	FIX	38381XJZ0	July 2049
Security Group 5		4.0	New Control			* 1 *0.40
MI	5,048,135	4.0 3.5	NTL(PAC/AD)	FIX/IO	38381XKA3	July 2049 June 2049
MY	40,000,000 385,085	3.5	PAC/AD PAC/AD	FIX FIX	38381XKB1 38381XKC9	July 2049 July 2049
MZ	10,795,124	4.0	SUP	FIX/Z	38381XKD7	July 2049 July 2049
Security Group 6	10,775,121	110	501	11111	303011112	July 2019
FJ(1)	80,000,000	(5)	SEQ	FLT	38381XKE5	July 2049
IJ(1)	80,000,000	0.1	NTL(SEQ)	FIX/IO	38381XKF2	July 2049
JF(1)	20,000,000	(5)	SEQ	FLT	38381XKG0	March 2031
Л(1)	20,000,000	0.1	NTL(SEQ)	FIX/IO	38381XKH8	March 2031
JS	20,000,000	(5)	NTL(SEQ)	INV/IO	38381XKJ4	March 2031
SJ	80,000,000	(5)	NTL(SEQ)	INV/IO	38381XKK1	July 2049
Security Group 7	********		200			* 1 *0.40
FG	30,000,000	(5)	PT	FLT	38381XKL9	July 2049
GF	100,000,000 100,000,000	(5) (5)	PT NTL(PT)	FLT INV/IO	38381XKM7 38381XKN5	July 2049 July 2049
SG(1)	30,000,000	(5)	NTL(PT)	INV/IO INV/IO	38381XKP0	July 2049 July 2049
	30,000,000	(5)	TTE(TT)	1117/10	30301741410	July 2047
<b>Security Group 8</b> D(1)	90,513,913	2.0	SC/SEQ	FIX	38381XKQ8	February 2048
DF(1)	25,861,117	(5)	SC/SEQ SC/SEQ	FLT	38381XKR6	February 2048
DS(1)	25,861,117	(5)	NTL(SC/SEQ)	INV/IO	38381XKS4	February 2048
E(1)	5,657,698	2.0	SC/SEQ	FIX	38381XKT2	February 2048
EF(1)	1,616,485	(5)	SC/SEQ	FLT	38381XKU9	February 2048
ES(1)	1,616,485	(5)	NTL(SC/SEQ)	INV/IO	38381XKV7	February 2048
Security Group 9						
F	75,000,000	(5)	PT NTTL (DT)	FLT	38381XKW5	July 2049
<u>S</u>	75,000,000	(5)	NTL(PT)	INV/IO	38381XKX3	July 2049
Security Group 10	12 400 050	(5)	DAL	ET T	202013/7/22	II 2040
FL(1)	13,489,858 29,837,705	(5) (5)	PT PT	FLT FLT	38381XKY1 38381XKZ8	July 2049 July 2049
FP(1)	18,047,363	(5)	PT	FLT	38381XLA2	July 2049 July 2049
FW(1)	39,375,000	(5)	PAC	FLT	38381XLB0	July 2049
FY(1)	13,967,927	(5)	SUP	FLT	38381XLC8	July 2049
QA	69,592,000	4.0	PAC/AD	FIX	38381XLD6	July 2049
QB	85,146,000	4.0	PAC/AD	FIX	38381XLE4	July 2049
SL(1)	13,489,858	(5)	NTL(PT)	INV/IO	38381XLF1	July 2049
SM(1)	29,837,705 18,047,363	(5) (5)	NTL(PT) NTL(PT)	INV/IO INV/IO	38381XLG9 38381XLH7	July 2049 July 2049
SW(1)	39,375,000	(5)	NTL(PAC)	INV/IO	38381XLJ3	July 2049 July 2049
SY(1)	13,967,927	(5)	NTL(SUP)	INV/IO	38381XLK0	July 2049
UZ(1)	5,701,300	4.0	SUP	FIX/Z	38381XLL8	July 2049
WF(1)	43,992,000	(5)	PAC	FLT	38381XLM6	July 2049
WS(1)	43,992,000	(5)	NTL(PAC)	INV/IO	38381XLN4	July 2049
YF(1)	15,605,022 15,605,022	(5) (5)	SUP NTL(SUP)	FLT INV/IO	38381XLP9 38381XLQ7	July 2049 July 2049
ZU(1)	6,916,393	4.0	SUP	FIX/Z	38381XLR5	July 2049 July 2049
==(-,	0,710,073		501	1222	2330111110	July 2017

(Cover continued on next page)

# **Credit Suisse**

**Great Pacific Securities** 

The date of this Offering Circular Supplement is July 23, 2019.

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 11						
FH(1)	\$ 10,280,000	(5)	PT	FLT	38381XLS3	July 2049
HF(1)	5,560,000	(5)	PT	FLT	38381XLT1	July 2049
HS(1)	5,560,000	(5)	NTL(PT)	INV/IO	38381XLU8	July 2049
PF(1)	11,180,400	(5)	PT	FLT	38381XLV6	July 2049
PS(1)	11,180,400	(5)	NTL(PT)	INV/IO	38381XLW4	July 2049
QC(1)	24,999,000	3.0%	PAC/AD	FIX	38381XLX2	March 2049
QF	10,292,857	(5)	PAC/AD	FLT	38381XLY0	July 2049
QS	10,292,857	(5)	NTL(PAC/AD)	INV/IO	38381XLZ7	July 2049
QY	733,143	3.0	PAC/AD	FIX	38381XMA1	July 2049
SH(1)	10,280,000	(5)	NTL(PT)	INV/IO	38381XMB9	July 2049
ZA(1)	4,505,600	4.0	SUP	FIX/Z	38381XMC7	July 2049
Security Group 12						
HP(1)	13,416,000	3.0	PAC/AD	FIX	38381XMD5	February 2033
HZ	7,384,316	3.5	SUP	FIX/Z	38381XME3	July 2049
PI	9,582,571	3.5	NTL(PAC/AD)	FIX/IO	38381XMF0	July 2049
PY(1)	53,662,000	3.0	PAC/AD	FIX	38381XMG8	July 2049
Residual						
RR	0	0.0	NPR	NPR	38381XMH6	July 2049

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



#### **AVAILABLE INFORMATION**

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

- this Offering Circular Supplement (this "Supplement"),
- the Base Offering Circular and
- in the case of the Group 2, 3 and 8 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.

# TABLE OF CONTENTS

	Page		Page
Terms Sheet	S-3	ERISA Matters	S-52
Risk Factors	S-13	Legal Investment Considerations	S-52
The Trust Assets	S-16	Plan of Distribution	S-53
Ginnie Mae Guaranty	S-18	Increase in Size	S-53
Description of the Securities	S-18	Legal Matters	S-53
Yield, Maturity and Prepayment		Schedule I: Available Combinations	S-I-1
Considerations	S-22	Schedule II: Scheduled Principal	
Certain United States Federal Income Tax		Balances	S-II-1
Consequences	S-49	Exhibit A: Underlying Certificates	A-1

#### **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:** Credit Suisse Securities (USA) LLC

**Co-Sponsor:** Great Pacific Securities **Trustee:** Wells Fargo Bank, N.A. **Tax Administrator:** The Trustee **Closing Date:** July 30, 2019

**Distribution Date:** The 20th day of each month or, if the 20th day is not a Business Day, the first Business Day thereafter, commencing in August 2019.

#### **Trust Assets:**

Trust Asset Group or Subgroup <sup>(1)</sup>	Trust Asset Type	Certificate Rate	Original Term To Maturity (in years)
1	Ginnie Mae II	4.5%	30
2	Underlying Certificate	(2)	(2)
3A	<b>Underlying Certificates</b>	(2)	(2)
3B	Underlying Certificate	(2)	(2)
3C	Underlying Certificate	(2)	(2)
4	Ginnie Mae II	4.0%	30
5	Ginnie Mae II	4.0%	30
6	Ginnie Mae II	4.5%	30
7A	Ginnie Mae II	4.0%	30
7B	Ginnie Mae II	4.0%	30
8	<b>Underlying Certificate</b>	(2)	(2)
9	Ginnie Mae II	4.0%	30
10A	Ginnie Mae II	5.5%	30
10B	Ginnie Mae II	5.5%	30
10C	Ginnie Mae II	5.0%	30
10D	Ginnie Mae II	5.0%	30
10E	Ginnie Mae II	5.0%	30
11A	Ginnie Mae II	5.0%	30
11B	Ginnie Mae II	5.0%	30
11C	Ginnie Mae II	5.0%	30
12	Ginnie Mae II	3.5%	30

<sup>&</sup>lt;sup>(1)</sup> The Group 3, 7, 10 and 11 Trust Assets consist of subgroups (each, a "Subgroup").

<sup>&</sup>lt;sup>(2)</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 of certain MX Classes in Groups 10 and 11, 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, 4, 5, 6, 7, 9, 10, 11 and 12 Trust Assets<sup>(1)</sup>:

Weighted Average

Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate <sup>(2)</sup>
Group 1 Trust Assets			
\$61,103,077	273	80	4.838%
<b>Group 4 Trust Assets</b> \$10,000,000 <sup>(3)</sup>	358	2	4.496%
<b>Group 5 Trust Assets</b> \$51,180,209 <sup>(3)</sup>	358	2	4.496%
<b>Group 6 Trust Assets</b> \$100,000,000	359	1	5.000%
Subgroup 7A Trust Assets \$100,000,000	358	0	4.520%
<b>Subgroup 7B Trust Assets</b> \$30,000,000	359	0	4.520%
<b>Group 9 Trust Assets</b> \$75,000,000	355	1	4.560%
<b>Subgroup 10A Trust Assets</b> \$88,904,879	356	3	5.910%
<b>Subgroup 10B Trust Assets</b> \$99,328,370	356	3	5.910%
<b>Subgroup 10C Trust Assets</b> \$74,594,264	357	2	5.550%
<b>Subgroup 10D Trust Assets</b> \$33,724,646	357	2	5.550%
<b>Subgroup 10E Trust Assets</b> \$45,118,409	357	2	5.550%
<b>Subgroup 11A Trust Assets</b> \$27,951,000	357	2	5.550%
<b>Subgroup 11B Trust Assets</b> \$25,700,000	357	2	5.540%
<b>Subgroup 11C Trust Assets</b> \$13,900,000	357	2	5.540%
<b>Group 12 Trust Assets</b> \$74,462,316 <sup>(3)</sup>	358	1	3.999%
(1) As of July 1, 2019.			

- (2) The Mortgage Loans underlying the Group 1, 4, 5, 6, 7, 9, 10, 11 and 12 Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.
- (3) More than 10% of the Mortgage Loans underlying the Group 4, 5 and 12 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, 4, 5, 6, 7, 9, 10, 11 and 12 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 2, 3 and 8 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:

LIBOR for

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	Minimum Interest Rate
Security Group 1						
AF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
AS	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
BF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
BS	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
FA	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
SA	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
Security Group 6						
FJ	LIBOR + 0.60%	2.92500%	0.60%	4.40%	0	0.00%
FN	LIBOR + 0.60%	2.92500%	0.60%	4.40%	0	0.00%
JF	LIBOR + 0.60%	2.92500%	0.60%	4.40%	0	0.00%
JS	3.80% - LIBOR	1.47500%	0.00%	3.80%	0	3.80%
NF	LIBOR + 0.70%	3.02500%	0.70%	4.50%	0	0.00%
SJ	3.80% - LIBOR	1.47500%	0.00%	3.80%	0	3.80%

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	LIBOR for Minimum Interest Rate
Security Group 7						
FG	LIBOR + 0.71%	3.11175%	0.71%	4.00%	0	0.00%
GF	LIBOR + 0.71%	3.11175%	0.71%	4.00%	0	0.00%
GS	3.29% – LIBOR	0.88825%	0.00%	3.29%	0	3.29%
LS	3.29% – LIBOR	0.88825%	0.00%	3.29%	0	3.29%
SG	3.29% - LIBOR	0.88825%	0.00%	3.29%	0	3.29%
Security Group 8	<i>J.2770</i> LIDOR	0.0002)/0	0.0070	J.4770	U	3.4770
DF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
DS	6.10% - LIBOR	3.77500%	0.40%	6.10%	0	6.10%
EF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.10%
ES	6.10% - LIBOR	3.77500%	0.40%	6.10%	0	6.10%
FB	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.10%
	6.10% - LIBOR		0.40%	6.10%	-	6.10%
SB Security Group 9	0.10% - LIBOR	3.77500%	0.00%	0.10%	0	0.10%
· -	LIDOD + 0.7004	2.025000/	0.70%	4.00%	0	0.00%
F	LIBOR + 0.70%	3.02500%			-	
S	3.30% - LIBOR	0.97500%	0.00%	3.30%	0	3.30%
Security Group 10	IIDOD + 0.250/	2 675000/	0.250/	6.500/	0	0.000/
FC	LIBOR + 0.35%	2.67500%	0.35%	6.50%	0	0.00%
FL	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
FM	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
FP	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
FW	LIBOR + 0.35%	2.67500%	0.35%	6.50%	0	0.00%
FY	LIBOR + 0.35%	2.67500%	0.35%	6.50%	0	0.00%
SC	6.15% – LIBOR	3.82500%	0.00%	6.15%	0	6.15%
SD	6.15% – LIBOR	3.82500%	0.00%	6.15%	0	6.15%
SL	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
SM	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
SP	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
SW	6.15% – LIBOR	3.82500%	0.00%	6.15%	0	6.15%
SY	6.15% – LIBOR	3.82500%	0.00%	6.15%	0	6.15%
US	6.15% – LIBOR	3.82500%	0.00%	6.15%	0	6.15%
WF	LIBOR + 0.35%	2.67500%	0.35%	6.50%	0	0.00%
WS	6.15% – LIBOR	3.82500%	0.00%	6.15%	0	6.15%
YF	LIBOR + 0.35%	2.67500%	0.35%	6.50%	0	0.00%
YS	6.15% – LIBOR	3.82500%	0.00%	6.15%	0	6.15%
Security Group 11						
FH	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
HF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
HS	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
PF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
PS	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
QF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
QS	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
SH	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	LIBOR for Minimum Interest Rate
Security Groups 10 and 11						
CF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
CS	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
KF	LIBOR + 0.40%	2.72500%	0.40%	6.50%	0	0.00%
KS	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
SE	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%
SQ	6.10% - LIBOR	3.77500%	0.00%	6.10%	0	6.10%

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

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

#### **SECURITY GROUP 1**

The Group 1 Principal Distribution Amount will be allocated in the following order of priority:

- 1. Concurrently, to A and AF, pro rata, until retired
- 2. Concurrently, to B and BF, pro rata, until retired

#### **SECURITY GROUP 2**

The Group 2 Principal Distribution Amount will be allocated, sequentially, to KL and KM, in that order, until retired

#### **SECURITY GROUP 3**

The Group 3 Principal Distribution Amount and the KZ Accrual Amount will be allocated as follows:

- The KZ Accrual Amount, the Subgroup 3A Principal Distribution Amount, 50.0000039318% of the Subgroup 3B Principal Distribution Amount and 49.9999946606% of the Subgroup 3C Principal Distribution Amount, sequentially, to KA and KZ, in that order, until retired
- The remainder of the Subgroup 3B Principal Distribution Amount to KB, until retired
- The remainder of the Subgroup 3C Principal Distribution Amount to KC, until retired

#### **SECURITY GROUP 4**

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

#### **SECURITY GROUP 5**

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

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

#### **SECURITY GROUP 6**

The Group 6 Principal Distribution Amount will be allocated, sequentially, to JF and FJ, in that order, until retired

#### **SECURITY GROUP 7**

The Group 7 Principal Distribution Amount will be allocated as follows:

- The Subgroup 7A Principal Distribution Amount to GF, until retired
- The Subgroup 7B Principal Distribution Amount to FG, until retired

#### **SECURITY GROUP 8**

The Group 8 Principal Distribution Amount will be allocated in the following order of priority:

- 1. Concurrently, to D and DF, pro rata, until retired
- 2. Concurrently, to E and EF, pro rata, until retired

# **SECURITY GROUP 9**

The Group 9 Principal Distribution Amount will be allocated to F, until retired

#### **SECURITY GROUP 10**

The Group 10 Principal Distribution Amount, the UZ Accrual Amount and the ZU Accrual Amount will be allocated as follows:

- The UZ Accrual Amount, 40.0000004499% of the Subgroup 10A Principal Distribution Amount and 40% of the Subgroup 10B Principal Distribution Amount in the following order of priority:
  - 1. To QA, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To UZ, until retired
  - 3. To QA, without regard to its Scheduled Principal Balance, until retired
- The ZU Accrual Amount, 60.0000008044% of the Subgroup 10C Principal Distribution Amount, 60.0000011861% of the Subgroup 10D Principal Distribution Amount and 60.0000013298% of the Subgroup 10E Principal Distribution Amount in the following order of priority:
  - 1. To QB, until reduced to its Scheduled Principal Balance for that Distribution Date

- 2. To ZU, until retired
- 3. To QB, without regard to its Scheduled Principal Balance, until retired
- The remainder of the Subgroup 10A Principal Distribution Amount in the following order of priority:
  - 1. To FW, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To FY, until retired
  - 3. To FW, without regard to its Scheduled Principal Balance, until retired
- The remainder of the Subgroup 10B Principal Distribution Amount in the following order of priority:
  - 1. To WF, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To YF, until retired
  - 3. To WF, without regard to its Scheduled Principal Balance, until retired
- The remainder of the Subgroup 10C Principal Distribution Amount to FM, until retired
- The remainder of the Subgroup 10D Principal Distribution Amount to FL, until retired
- The remainder of the Subgroup 10E Principal Distribution Amount to FP, until retired

#### **SECURITY GROUP 11**

The Group 11 Principal Distribution Amount and the ZA Accrual Amount will be allocated as follows:

- The ZA Accrual Amount, 60% of the Subgroup 11A Principal Distribution Amount, 60% of the Subgroup 11B Principal Distribution Amount and 60% of the Subgroup 11C Principal Distribution Amount in the following order of priority:
- 1. To QC, QF and QY, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date, concurrently, as follows:
  - a. 28.5714281749% to QF, while outstanding
  - b. 71.4285718251%, sequentially, to QC and QY, in that order, while outstanding
  - 2. To ZA, until retired
- 3. To QC, QF and QY, in the same manner and order of priority as described in step 1. above, but without regard to their Aggregate Scheduled Principal Balance, until retired
- The remainder of the Subgroup 11A Principal Distribution Amount to PF, until retired
- The remainder of the Subgroup 11B Principal Distribution Amount to FH, until retired
- The remainder of the Subgroup 11C Principal Distribution Amount to HF, until retired

#### **SECURITY GROUP 12**

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

1. Sequentially, to HP and PY, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date

- 2. To HZ, until retired
- 3. Sequentially, to HP and PY, 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:

Security Group	PAC Classes	Structuring Ranges
5	MP and MY (in the aggregate)	250% PSA through 500% PSA
10	FW	225% PSA through 460% PSA
10	QA	400% PSA through 500% PSA
10	QB	400% PSA through 500% PSA
10	WF	225% PSA through 460% PSA
11	QC, QF and QY (in the aggregate)	200% PSA through 300% PSA
12	HP and PY (in the aggregate)	150% PSA through 225% PSA

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

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

Class	Original Class Notional Balance	Represents Approximately
Security Group 1		
AI	. \$ 32,489,550	55.55555556% of A and AF (in the aggregate) (SEQ Classes)
AS	. 32,489,550	100% of AF (SEQ Class)
ВІ	. 1,456,603	55.55555556% of B and BF (in the aggregate) (SEQ Classes)
BS	. 1,456,603	100% of BF (SEQ Class)
CI	. 33,946,153	55.555555556% of the Group 1 Trust Assets
SA	. 33,946,153	100% of AF and BF (in the aggregate) (SEQ Classes)
Security Group 2		
IK	. \$ 2,814,709	12.5% of the Group 2 Trust Assets
Security Group 4		
IO	. \$ 2,500,000	25% of MA (PT Class)
Security Group 5		
IM	. \$ 12,500,000	31.25% of MP (PAC/AD Class)
MI	. 5,048,135	12.5% of MP and MY (in the aggregate) (PAC/AD Classes)

Class	Original Class Notional Balance	Represents Approximately
Security Group 6		
IJ	\$ 80.000.000	100% of FJ (SEQ Class)
JI		100% of JF (SEQ Class)
JS	, ,	100% of JF (SEQ Class)
NI		2.222222222% of FJ and JF (in the aggregate) (SEQ Classes)
SJ		100% of FJ (SEQ Class)
Security Group 7	, ,	
GS	\$100,000,000	100% of GF (PT Class)
LS	130,000,000	100% of the Group 7 Trust Assets
SG	30,000,000	100% of FG (PT Class)
Security Group 8		
DI	\$ 25,861,117	22.222222222% of D and DF (in the aggregate) (SC/SEQ Classes)
DS	25,861,117	100% of DF (SC/SEQ Class)
EI		22.222222222% of E and EF (in the aggregate) (SC/SEQ Classes)
ES		100% of EF (SC/SEQ Class)
GI		22.222222222% of the Group 8 Trust Assets
SB	27,477,602	100% of DF and EF (in the aggregate) (SC/SEQ Classes)
Security Group 9		
S	\$ 75,000,000	100% of F (PT Class)
SC	\$ 39,375,000	100% of FW (PAC Class)
30	13,967,927	100% of FY (SUP Class)
		100/0 0111 (001 01855)
	\$ 53,342,927	
SD	\$ 43,992,000	100% of WF (PAC Class)
	15,605,022	100% of YF (SUP Class)
	\$ 59,597,022	
		Access Carry (DITT of
SL		100% of FL (PT Class)
SM		100% of FM (PT Class)
SP	, ,	100% of FP (PT Class) 100% of FW (PAC Class)
SW SY		100% of FY (SUP Class)
US	29,572,949	100% of FY and YF (in the aggregate) (SUP Classes)
WS	43,992,000	100% of WF (PAC Class)
YS	15,605,022	100% of YF (SUP Class)
Security Group 11	19,009,022	10070 01 11 (001 01100)
HS	\$ 5,560,000	100% of HF (PT Class)
PS	11,180,400	100% of PF (PT Class)
QI	7,499,700	30% of QC (PAC/AD Class)
QS	10,292,857	100% of QF (PAC/AD Class)
SH	10,280,000	100% of FH (PT Class)
Security Groups 10 and	11	
CS	\$ 41,018,105	100% of FM and PF (in the aggregate) (PT Classes)
KS	23,769,858	100% of FH and FL (in the aggregate) (PT Classes)
SE	64,787,963	100% of FH, FL, FM and PF (in the aggregate) (PT Classes)
SQ	23,607,363	100% of FP and HF (in the aggregate) (PT Classes)
Security Group 12		
IP		28.5714285714% of PY (PAC/AD Class)
PI	9,582,571	14.2857142857% of HP and PY (in the aggregate) (PAC/AD Classes)

Tax Status: Double REMIC Series. See "Certain United States Federal Income Tax Consequences" in
this Supplement and in the Base Offering Circular.
<b>Regular and Residual Classes:</b> 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 floating rate and inverse floating rate securities. If LIBOR performs differently from what you expect, the yield on your securities may be lower than you expect. Lower levels of LIBOR will generally reduce the yield on floating rate securities; higher levels of LIBOR will generally reduce the yield on inverse floating rate securities. You should bear in mind that the timing of changes in the level of LIBOR may affect your yield: generally, the earlier a change,

the greater the effect on your yield. It is doubtful that LIBOR will remain constant.

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

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

The rate of payments on the underlying certificates will directly affect the rate of payments on the group 2, 3 and 8 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 document, one of the underlying certificates included in trust asset subgroup 3A is not entitled to distributions of principal until a certain class of the related underlying series has

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 class of certificates having priority over this underlying certificate. Accordingly, this underlying certificate may receive no principal distributions for extended periods of time.

In addition, the principal entitlements of certain of the underlying certificates included in trust asset groups 2 and 3 on any payment date are calculated, directly or indirectly, on the basis of schedules; no assurance can be given that the underlying certificates will adhere to their schedules. Further, prepayments on the related mortgage loans may have occurred at rates faster or slower than those initially assumed.

The trust assets underlying certain of the underlying certificates included in trust asset groups 3 and 8 are also previously issued certificates that represent beneficial ownership interests in separate trusts. The rate of payments on the previously issued certificates backing these underlying certificates will directly affect the timing and rate of payments on the group 3 and 8 securities. You should read the related underlying certificate disclosure documents, including the risk factors contained therein, to understand the payments on and related risks of the previously issued certificates backing these underlying certificates.

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 1, 2, 3, 6, 7, 8, 9, 10 and 11 trust assets and up to 100% of the mortgage loans underlying the group 4, 5 and 12 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 designate an alternative index (approved by Ginnie Mae) based upon comparable information and methodology. The Trustee shall select 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 2, 3 and 8 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, 4, 5, 6, 7, 9, 10, 11 and 12)

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 2, 3 and 8)

The Group 2, 3 and 8 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, 4, 5, 6, 7, 9, 10, 11 and 12 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, 4, 5, 6, 7, 9, 10, 11 and 12 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 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 Classes	The calendar month preceding the related Distribution Date
Floating Rate and	From the 20th day of the month preceding the month of the related
Inverse Floating	Distribution Date through the 19th day of the month of that Distribution Date
Rate Classes	

# Fixed Rate Classes

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

# Floating Rate and Inverse Floating Rate Classes

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

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

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

#### Accrual Classes

Each of Classes HZ, KZ, MZ, UZ, ZA and ZU is an Accrual Class. Interest will accrue on the Accrual Classes and be distributed as described under "Terms Sheet — Accrual Classes" in this Supplement.

# **Principal Distributions**

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

# Categories of Classes

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

#### Notional Classes

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

#### **Residual Securities**

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the 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 Ginnie Mae's website.

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 1, 2, 3, 7, 12, 13, 14, 21 and 29, other related MX Classes. This process may occur repeatedly.

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

In the case of Combinations 1, 2, 3, 7, 12, 13, 14, 21 and 29, 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 and 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 GNMAExchange@wellsfargo.com or in writing at its Corporate Trust Office at 150 East 42nd Street, 40th Floor, New York, NY 10017, Attention: Trust Administration Ginnie Mae 2019-085. The Trustee may be contacted by telephone at (917) 260-1522 and by fax at (917) 260-1594.

A fee will be payable to the Trustee in connection with each exchange equal to 1/32 of 1% of the outstanding principal (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. If the notional balance of the interest only securities surrendered exceeds that of the interest only securities received, the fee will be based on the latter. 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 2, 3 and 8 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 2, 3 and 8 securities" in this Supplement.

#### **Accretion Directed Classes**

Classes HP, KA, MP, MY, PY, QA, QB, QC, QF and QY are Accretion Directed Classes. The related Accrual Amounts will be applied to making principal distributions on those Classes as described in this Supplement. Each of Classes MI, PI and QS is a Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of the related Accretion Directed Class or Classes shown under "Terms Sheet — Notional Classes" in this Supplement.

Each of the Accretion Directed Classes has the AD designation in the suffix position, rather than the prefix position, in its class principal type because it does not have principal payment stability through the applicable pricing prepayment assumption. Although the Accretion Directed Classes are entitled to receive payments from the related Accrual Amounts, they do not have principal payment stability through any prepayment rate significantly higher than 0% PSA, except within any applicable Effective Ranges.

#### 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:

Security Group	PAC Classes	Initial Effective Ranges
5	MP and MY (in the aggregate)	250% PSA through 500% PSA
10	FW	225% PSA through 460% PSA
10	QA	400% PSA through 500% PSA
10	QB	400% PSA through 500% PSA
10	WF	225% PSA through 460% PSA
11	QC, QF and QY (in the aggregate)	200% PSA through 300% PSA
12	HP and PY (in the aggregate)	150% PSA through 225% PSA

• The principal payment of the PAC Classes will be supported by the related Support Classes.

If the Support Class supporting a given PAC Class is retired before the PAC Class is retired, the outstanding PAC 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 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 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**

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, 4, 5, 6, 7, 9, 10, 11 and 12 Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 4, 5, 6, 7, 9, 10, 11 and 12 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, 4, 5, 6, 7, 9, 10, 11 or 12 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 August 2019.
  - 4. A termination of the Trust or the Underlying Trusts does not occur.
  - 5. The Closing Date for the Securities is July 30, 2019.
- 6. No expenses or fees are paid by the Trust other than the Trustee Fee, which is paid as described under "The Trust Assets The Trustee Fee" in this Supplement.
- 7. Distributions on the Underlying Certificates are made as described in the related Underlying Certificate Disclosure Documents.
  - 8. Each Class is held from the Closing Date and is not exchanged in whole or in part.

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

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

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

#### **Decrement Tables**

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

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

The decrement tables set forth below illustrate the percentage of the Original Class Principal Balance (or, in the case of a Notional Class, the original Class Notional Balance) that would remain outstanding following the distribution made each specified month for each Regular or MX Class, based on

the assumption that the related Mortgage Loans prepay at the PSA Prepayment Assumption Rates. The percentages set forth in the following decrement tables have been rounded to the nearest whole percentage (including rounding down to zero).

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

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

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

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

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

Security Group 1 PSA Prepayment Assumption Rates

		ses A, AI AH, AI, A AP, A		, AM, Al			I, BI, BJ,		D, BE, BF BM, BN, I BT			sses CA, CJ, CK, CT		CN, CP,	
Distribution Date	0%	100%	237%	400%	500%	0%	100%	237%	400%	500%	0%	100%	237%	400%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	99	91	83	73	67	100	100	100	100	100	99	92	84	74	68
July 2021	97	83	68	53	44	100	100	100	100	100	97	84	70	55	47
July 2022	96	76	56	38	29	100	100	100	100	100	96	77	58	40	32
July 2023	94	68	46	27	18	100	100	100	100	100	95	70	48	30	21
July 2024	93	62	37	18	11	100	100	100	100	100	93	63	40	22	15
July 2025	91	55	30	12	6	100	100	100	100	100	91	57	33	16	10
July 2026	89	50	24	8	2	100	100	100	100	100	90	52	27	12	7
July 2027	87	44	19	4	0	100	100	100	100	100	88	47	22	9	4
July 2028	85	39	15	2	0	100	100	100	100	68	86	42	18	6	3
July 2029	83	34	11	0	0	100	100	100	100	45	84	37	15	4	2
July 2030	81	30	8	0	0	100	100	100	74	30	81	33	12	3	1
July 2031	78	26	6	0	0	100	100	100	53	20	79	29	10	2	1
July 2032	76	22	4	0	0	100	100	100	37	13	77	25	8	2	1
July 2033	73	18	2	0	0	100	100	100	26	8	74	22	6	1	0
July 2034	70	15	0	0	0	100	100	100	18	5	71	19	5	1	0
July 2035	67	12	0	0	0	100	100	84	12	3	68	16	4	1	0
July 2036	63	9	0	0	0	100	100	62	8	2	65	13	3	0	0
July 2037	60	6	0	0	0	100	100	45	5	1	61	10	2	0	0
July 2038	56	4	0	0	0	100	100	31	3	1	58	8	1	0	0
July 2039	52	1	0	0	0	100	100	20	2	0	54	5	1	0	0
July 2040	48	0	0	0	0	100	77	11	1	0	50	3	0	0	0
July 2041	43	0	0	0	0	100	32	4	0	0	46	1	0	0	0
July 2042	38	0	0	0	0	100	0	0	0	0	41	0	0	0	0
July 2043	33	0	0	0	0	100	0	0	0	0	36	0	0	0	0
July 2044	28	0	0	0	0	100	0	0	0	0	31	0	0	0	0
July 2045	22	0	0	0	0	100	0	0	0	0	26	0	0	0	0
July 2046	16	0	0	0	0	100	0	0	0	0	20	0	0	0	0
July 2047	10	0	0	0	0	100	0	0	0	0	14	0	0	0	0
July 2048	3	0	0	0	0	100	0	0	0	0	7	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	18.8	8.0	4.6	2.8	2.2	29.7	21.6	18.1	12.9	10.5	19.3	8.5	5.2	3.3	2.6

Security Group 2 PSA Prepayment Assumption Rates

			Class II	K				Class K	L		Class KM				
Distribution Date	0%	200%	470%	700%	1,000%	0%	200%	470%	700%	1,000%	0%	200%	470%	700%	1,000%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	98	94	94	94	94	88	67	67	67	67	100	100	100	100	100
July 2021	96	85	83	68	51	75	10	0	0	0	100	100	100	82	61
July 2022	93	73	57	37	18	61	0	0	0	0	100	88	69	45	21
July 2023	91	62	39	19	4	47	0	0	0	0	100	75	47	23	5
July 2024	89	53	26	9	0	32	0	0	0	0	100	64	32	11	0
July 2025	86	44	17	3	0	17	0	0	0	0	100	53	21	4	0
July 2026	83	36	11	0	0	1	0	0	0	0	100	44	13	0	0
July 2027	80	30	6	0	0	0	0	0	0	0	97	36	8	0	0
July 2028	77	24	3	0	0	0	0	0	0	0	93	28	4	0	0
July 2029	74	19	1	0	0	0	0	0	0	0	89	23	1	0	0
July 2030	71	15	0	0	0	0	0	0	0	0	85	18	0	0	0
July 2031	67	11	0	0	0	0	0	0	0	0	81	14	0	0	0
July 2032	64	8	0	0	0	0	0	0	0	0	77	10	0	0	0
July 2033	60	6	0	0	0	0	0	0	0	0	72	7	0	0	0
July 2034	56	4	0	0	0	0	0	0	0	0	68	5	0	0	0
July 2035	52	3	0	0	0	0	0	0	0	0	63	3	0	0	0
July 2036	48	1	0	0	0	0	0	0	0	0	57	1	0	0	0
July 2037	43	0	0	0	0	0	0	0	0	0	52	0	0	0	0
July 2038	38	0	0	0	0	0	0	0	0	0	46	0	0	0	0
July 2039	34	0	0	0	0	0	0	0	0	0	40	0	0	0	0
July 2040	28	0	0	0	0	0	0	0	0	0	34	0	0	0	0
July 2041	23	0	0	0	0	0	0	0	0	0	28	0	0	0	0
July 2042	17	0	0	0	0	0	0	0	0	0	21	0	0	0	0
July 2043	11	0	0	0	0	0	0	0	0	0	14	0	0	0	0
July 2044	5	0	0	0	0	0	0	0	0	0	6	0	0	0	0
July 2045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	15.4	6.2	3.9	2.8	2.2	3.7	1.3	1.3	1.1	1.0	17.8	7.2	4.4	3.2	2.4

Security Group 3 PSA Prepayment Assumption Rates

			Class KA					Class KE	3		Class KC				
Distribution Date	0%	100%	230%	400%	500%	0%	100%	230%	400%	500%	0%	100%	230%	400%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	97	92	85	77	73	96	89	79	67	59	97	90	82	70	64
July 2021	94	84	72	60	55	92	78	62	42	31	93	81	66	48	39
July 2022	90	76	61	48	43	88	69	47	23	12	90	72	53	32	22
July 2023	87	69	52	40	35	84	60	34	10	0	86	64	41	20	11
July 2024	83	62	44	33	26	80	51	24	0	0	82	56	32	11	3
July 2025	80	56	38	30	11	75	43	15	0	0	77	49	24	4	0
July 2026	76	50	34	16	1	70	36	7	0	0	73	43	17	0	0
July 2027	71	45	30	6	0	65	29	1	0	0	68	36	12	0	0
July 2028	67	39	28	0	0	60	23	0	0	0	63	31	7	0	0
July 2029	62	36	22	0	0	54	17	0	0	0	58	25	3	0	0
July 2030	58	33	14	0	0	48	11	0	0	0	52	20	0	0	0
July 2031	53	30	7	0	0	42	6	0	0	0	47	15	0	0	0
July 2032	47	28	2	0	0	36	1	0	0	0	41	11	0	0	0
July 2033	42	21	0	0	0	29	0	0	0	0	34	7	0	0	0
July 2034	39	12	0	0	0	22	0	0	0	0	28	3	0	0	0
July 2035	36	3	0	0	0	15	0	0	0	0	21	0	0	0	0
July 2036	32	0	0	0	0	7	0	0	0	0	13	0	0	0	0
July 2037	28	0	0	0	0	0	0	0	0	0	5	0	0	0	0
July 2038	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2039	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2040	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2041	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2042	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	12.9	7.9	5.4	3.6	2.9	10.2	5.6	3.2	1.9	1.5	10.8	6.6	3.9	2.3	1.9

# PSA Prepayment Assumption Rates

			Class KG					Class KZ		
Distribution Date	0%	100%	230%	400%	500%	0%	100%	230%	400%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100
July 2020	96	89	80	68	61	103	3 103	103	103	103
July 2021	93	79	63	45	35	105	105	105	105	105
July 2022	89	70	49	27	17	108	3 108	108	108	108
July 2023	85	62	37	14	5	111	111	111	111	111
July 2024	80	53	27	5	1	113	3 113	113	113	113
July 2025	76	46	19	2	0	110	5 116	116	116	116
July 2026	71	39	11	0	0	119	119	119	119	119
July 2027	66	32	5	0	0	122	2 122	122	122	5
July 2028	61	26	3	0	0	125	5 125	125	97	0
July 2029	56	20	1	0	0	128	3 128	128	0	0
July 2030	50	15	0	0	0	133	2 132	132	0	0
July 2031	44	10	0	0	0	135	5 135	135	0	0
July 2032	38	5	0	0	0	138	3 138	138	0	0
July 2033	31	3	0	0	0	142	2 142	84	0	0
July 2034	25	1	0	0	0	145	5 145	6	0	0
July 2035	17	0	0	0	0	149	149	0	0	0
July 2036	10	0	0	0	0	15	3 60	0	0	0
July 2037	2	0	0	0	0	15	7 0	0	0	0
July 2038	0	0	0	0	0	16	0	0	0	0
July 2039	0	0	0	0	0	165	5 0	0	0	0
July 2040	0	0	0	0	0	169	0	0	0	0
July 2041	0	0	0	0	0	17	3 0	0	0	0
July 2042	0	0	0	0	0	178	3 0	0	0	0
July 2043	0	0	0	0	0	(	) ()	0	0	0
July 2044	0	0	0	0	0	(	0	0	0	0
July 2045	0	0	0	0	0		0	0	0	0
July 2046	0	0	0	0	0		0	0	0	0
July 2047	0	0	0	0	0		0	0	0	0
Weighted Average										
Life (years)	10.4	6.0	3.5	2.1	1.7	23.	5 16.9	14.2	9.3	7.5

Security Group 4
PSA Prepayment Assumption Rates

	Classes IO and MA										
Distribution Date	0%	150%	300%	450%	600%						
Initial Percent	100	100	100	100	100						
July 2020	99	96	93	91	88						
July 2021	97	88	80	73	65						
July 2022	96	79	65	52	41						
July 2023	94	71	52	38	26						
July 2024	92	63	42	27	16						
July 2025	91	56	34	19	10						
July 2026	89	50	27	14	6						
July 2027	87	44	21	10	4						
July 2028	85	39	17	7	2						
July 2029	83	34	14	5	2						
July 2030	80	30	11	3	1						
July 2031	78	27	9	2	1						
July 2032	75	23	7	2	0						
July 2033	72	20	5	1	0						
July 2034	69	18	4	1	0						
July 2035	66	15	3	1	0						
July 2036	63	13	3	0	0						
July 2037	60	11	2	0	0						
July 2038	56	10	1	0	0						
July 2039	52	8	1	0	0						
July 2040	48	7	1	0	0						
July 2041	44	6	1	0	0						
July 2042	40	5	0	0	0						
July 2043	35	4	0	0	0						
July 2044	30	3	0	0	0						
July 2045	24	2	0	0	0						
July 2046	19	1	0	0	0						
July 2047	13	1	0	0	0						
July 2048	7	0	0	0	0						
July 2049	0	0	0	0	0						
Weighted Average											
Life (years)	19.0	8.7	5.5	4.0	3.2						

Security Group 5 PSA Prepayment Assumption Rates

	Classes IM, MB, MC, MD, ME,																			
			G and M				(	Class M	I			(	lass M	Y			(	Class M2	Z	
Distribution Date	0%	250%	300%	500%	600%	0%	250%	300%	500%	600%	0%	250%	300%	500%	600%	0%	250%	300%	500%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	97	91	91	91	91	97	92	92	92	92	100	100	100	100	100	104	104	100	84	76
July 2021	94	76	76	76	76	94	76	76	76	76	100	100	100	100	100	108	108	96	47	24
July 2022	91	58	58	58	52	91	58	58	58	52	100	100	100	100	100	113	113	91	14	0
July 2023	88	41	41	41	32	88	42	42	42	33	100	100	100	100	100	117	117	90	1	0
July 2024	84	28	28	28	20	85	29	29	29	21	100	100	100	100	100	122	120	90	0	0
July 2025	81	19	19	19	12	81	20	20	20	13	100	100	100	100	100	127	116	85	0	0
July 2026	77	13	13	13	7	77	14	14	14	8	100	100	100	100	100	132	107	77	0	0
July 2027	73	8	8	8	4	73	9	9	9	5	100	100	100	100	100	138	96	67	0	0
July 2028	69	5	5	5	2	69	6	6	6	3	100	100	100	100	100	143	84	58	0	0
July 2029	64	3	3	3	1	65	4	4	4	2	100	100	100	100	100	149	73	49	0	0
July 2030	60	2	2	2	0	60	3	3	3	1	100	100	100	100	100	155	62	40	0	0
July 2031	55	1	1	1	0	55	2	2	2	1	100	100	100	100	78	161	53	33	0	0
July 2032	50	0	0	0	0	50	1	1	1	0	100	100	100	100	48	168	44	27	0	0
July 2033	44	0	0	0	0	45	1	1	1	0	100	93	93	93	29	175	37	22	0	0
July 2034	39	0	0	0	0	39	1	1	1	0	100	62	62	62	18	182	30	18	0	0
July 2035	33	0	0	0	0	34	0	0	0	0	100	41	41	41	11	189	25	14	0	0
July 2036	27	0	0	0	0	27	0	0	0	0	100	27	27	27	7	197	20	11	0	0
July 2037	20	0	0	0	0	21	0	0	0	0	100	18	18	18	4	205	16	9	0	0
July 2038	13	0	0	0	0	14	0	0	0	0	100	12	12	12	2	214	13	7	0	0
July 2039	6	0	0	0	0	7	0	0	0	0	100	8	8	8	1	222	10	5	0	0
July 2040	0	0	0	0	0	0	0	0	0	0	5	5	5	5	1	229	8	4	0	0
July 2041	0	0	0	0	0	0	0	0	0	0	3	3	3	3	0	209	6	3	0	0
July 2042	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	187	5	2	0	0
July 2043	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	165	4	2	0	0
July 2044	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	141	3	1	0	0
July 2045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	2	1	0	0
July 2046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	1	0	0	0
July 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	1	0	0	0
July 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average	400	/ 0	/ 0	/ 0	0.5	400	/ 4	/ -	/ -	2.	24.0	160	460	460		050	400	40 /	2.0	
Life (years)	12.2	4.0	4.0	4.0	3.5	12.3	4.1	4.1	4.1	3.6	21.0	16.2	16.2	16.2	13.5	25.9	12.3	10.4	2.0	1.5

Security Group 6 PSA Prepayment Assumption Rates

		Classe	es FJ, IJ a	ınd SJ		Classes FN, NF and NI					Classes JF, JI and JS				
Distribution Date	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	100	100	100	100	100	99	96	94	92	90	94	81	70	59	48
July 2021	100	100	100	93	84	97	89	82	74	67	87	46	9	0	0
July 2022	100	100	83	67	54	96	80	66	54	43	80	0	0	0	0
July 2023	100	89	67	48	34	95	72	53	39	27	73	0	0	0	0
July 2024	100	80	54	35	21	93	64	43	28	17	65	0	0	0	0
July 2025	100	71	43	25	13	91	57	34	20	11	57	0	0	0	0
July 2026	100	63	35	18	8	90	51	28	14	7	48	0	0	0	0
July 2027	100	56	28	13	5	88	45	22	10	4	39	0	0	0	0
July 2028	100	50	22	9	3	86	40	18	7	3	29	0	0	0	0
July 2029	100	44	18	6	2	84	35	14	5	2	18	0	0	0	0
July 2030	100	39	14	4	1	81	31	11	4	1	7	0	0	0	0
July 2031	99	34	11	3	1	79	27	9	3	1	0	0	0	0	0
July 2032	96	30	9	2	0	77	24	7	2	0	0	0	0	0	0
July 2033	92	26	7	2	0	74	21	6	1	0	0	0	0	0	0
July 2034	89	23	5	1	0	71	18	4	1	0	0	0	0	0	0
July 2035	85	20	4	1	0	68	16	3	1	0	0	0	0	0	0
July 2036	81	17	3	1	0	65	14	3	0	0	0	0	0	0	0
July 2037	77	15	3	0	0	61	12	2	0	0	0	0	0	0	0
July 2038	72	13	2	0	0	58	10	2	0	0	0	0	0	0	0
July 2039	68	11	1	0	0	54	9	1	0	0	0	0	0	0	0
July 2040	62	9	1	0	0	50	7	1	0	0	0	0	0	0	0
July 2041	57	7	1	0	0	46	6	1	0	0	0	0	0	0	0
July 2042	51	6	1	0	0	41	5	0	0	0	0	0	0	0	0
July 2043	45	5	0	0	0	36	4	0	0	0	0	0	0	0	0
July 2044	39	4	0	0	0	31	3	0	0	0	0	0	0	0	0
July 2045	32	3	0	0	0	26	2	0	0	0	0	0	0	0	0
July 2046	25	2	0	0	0	20	2	0	0	0	0	0	0	0	0
July 2047	17	1	0	0	0	14	1	0	0	0	0	0	0	0	0
July 2048	9	1	0	0	0	7	0	0	0	0	0	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	22.5	10.7	6.6	4.8	3.8	19.3	8.9	5.6	4.1	3.2	6.5	1.8	1.3	1.1	0.9

Security Group 7
PSA Prepayment Assumption Rates

	Classes FG and SG Classes GF and GS								Class LS						
Distribution Date	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	99	96	95	93	91	99	96	95	93	91	99	96	95	93	91
July 2021	97	90	83	76	69	97	90	83	76	69	97	90	83	76	69
July 2022	96	80	67	55	44	96	80	67	55	44	96	80	67	55	44
July 2023	94	72	54	39	28	94	72	54	39	28	94	72	54	39	28
July 2024	92	64	43	28	17	92	64	43	28	17	92	64	43	28	17
July 2025	91	57	35	20	11	91	57	35	20	11	91	57	35	20	11
July 2026	89	50	28	14	7	89	50	28	14	7	89	50	28	14	7
July 2027	87	45	22	10	4	87	45	22	10	4	87	45	22	10	4
July 2028	85	40	18	7	3	85	40	18	7	3	85	40	18	7	3
July 2029	83	35	14	5	2	83	35	14	5	2	83	35	14	5	2
July 2030	80	31	11	4	1	80	31	11	4	1	80	31	11	4	1
July 2031	78	27	9	3	1	78	27	9	3	1	78	27	9	3	1
July 2032	75	24	7	2	0	75	24	7	2	0	75	24	7	2	0
July 2033	72	21	6	1	0	72	21	5	1	0	72	21	5	1	0
July 2034	69	18	4	1	0	69	18	4	1	0	69	18	4	1	0
July 2035	66	16	3	1	0	66	16	3	1	0	66	16	3	1	0
July 2036	63	13	3	0	0	63	13	3	0	0	63	13	3	0	0
July 2037	60	12	2	0	0	60	11	2	0	0	60	12	2	0	0
July 2038	56	10	2	0	0	56	10	2	0	0	56	10	2	0	0
July 2039	52	8	1	0	0	52	8	1	0	0	52	8	1	0	0
July 2040	48	7	1	0	0	48	7	1	0	0	48	7	1	0	0
July 2041	44	6	1	0	0	44	6	1	0	0	44	6	1	0	0
July 2042	40	5	0	0	0	40	5	0	0	0	40	5	0	0	0
July 2043	35	4	0	0	0	35	4	0	0	0	35	4	0	0	0
July 2044	30	3	0	0	0	30	3	0	0	0	30	3	0	0	0
July 2045	24	2	0	0	0	24	2	0	0	0	24	2	0	0	0
July 2046	19	1	0	0	0	19	1	0	0	0	19	1	0	0	0
July 2047	13	1	0	0	0	13	1	0	0	0	13	1	0	0	0
July 2048	7	0	0	0	0	7	0	0	0	0	7	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	19.0	8.9	5.6	4.1	3.3	19.0	8.9	5.6	4.1	3.3	19.0	8.9	5.6	4.1	3.3

Security Group 8 PSA Prepayment Assumption Rates

		DH, DI, DP, D		DL, DM,			EI, EJ, EI		C, ED, EF, I, EN, EP T		Classes FB, GA, GB, GC, GD, GE, GH, GI, GJ, GK, GL, GM, GN, GP, GQ, GT and SB					
Distribution Date	0%	100%	237%	400%	500%	0%	100%	237%	400%	500%	0%	100%	237%	400%	500%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
July 2020	98	91	83	73	66	100	100	100	100	100	98	92	84	74	68	
July 2021	95	83	68	52	43	100	100	100	100	100	95	84	70	55	47	
July 2022	92	76	56	37	28	100	100	100	100	100	93	77	59	41	32	
July 2023	90	69	46	26	17	100	100	100	100	100	90	70	49	30	22	
July 2024	87	62	37	17	9	100	100	100	100	100	88	64	41	22	15	
July 2025	84	56	30	11	4	100	100	100	100	100	85	58	34	16	10	
July 2026	80	50	23	6	1	100	100	100	100	100	82	53	28	12	7	
July 2027	77	45	18	3	0	100	100	100	100	77	78	48	23	9	5	
July 2028	74	39	14	1	0	100	100	100	100	52	75	43	19	6	3	
July 2029	70	35	10	0	0	100	100	100	78	34	72	39	15	5	2	
July 2030	66	30	7	0	0	100	100	100	56	23	68	34	13	3	1	
July 2031	62	26	5	0	0	100	100	100	40	15	64	31	10	2	1	
July 2032	58	22	2	0	0	100	100	100	29	10	60	27	8	2	1	
July 2033	53	19	1	0	0	100	100	100	20	6	56	23	7	1	0	
July 2034	48	15	0	0	0	100	100	87	14	4	51	20	5	1	0	
July 2035	43	12	0	0	0	100	100	68	10	3	47	17	4	1	0	
July 2036	38	9	0	0	0	100	100	52	7	2	42	15	3	0	0	
July 2037	33	7	0	0	0	100	100	39	4	1	37	12	2	0	0	
July 2038	27	4	0	0	0	100	100	29	3	1	31	10	2	0	0	
July 2039	21	2	0	0	0	100	100	20	2	0	26	7	1	0	0	
July 2040	15	0	0	0	0	100	91	13	1	0	20	5	1	0	0	
July 2041	8	0	0	0	0	100	58	8	1	0	13	3	0	0	0	
July 2042	2	0	0	0	0	100	30	4	0	0	7	2	0	0	0	
July 2043	0	0	0	0	0	47	11	1	0	0	3	1	0	0	0	
July 2044	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
July 2045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July 2046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July 2048	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	ŏ	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	
Weighted Average																
Life (years)	13.7	8.0	4.5	2.7	2.2	24.0	22.4	17.7	12.2	9.8	14.3	8.9	5.3	3.3	2.6	

Security Group 9 PSA Prepayment Assumption Rates

		C	lasses F and	s	
Distribution Date	0%	100%	200%	300%	400%
Initial Percent	100	100	100	100	100
July 2020	99	97	95	94	92
July 2021	97	91	86	81	77
July 2022	96	85	75	66	58
July 2023	94	78	65	53	43
July 2024	92	72	56	43	32
July 2025	91	66	48	34	24
July 2026	89	60	41	27	18
July 2027	87	55	35	22	13
July 2028	85	51	30	17	10
July 2029	83	46	26	14	7
July 2030	80	42	22	11	5
July 2031	78	38	19	9	4
July 2032	75	34	16	7	3
July 2033	72	31	13	5	2
July 2034	69	28	11	4	1
July 2035	66	25	9	3	1
July 2036	63	22	8	3	1
July 2037	60	20	6	2	1
July 2038	56	17	5	2	0
July 2039	52	15	4	1	0
July 2040	48	13	3	1	0
July 2041	44	11	3	1	0
July 2042	40	9	2	0	0
July 2043	35	7	2	0	0
July 2044	30	6	1	0	0
July 2045	24	4	1	0	0
July 2046	19	3	1	0	0
July 2047	13	2	0	0	0
July 2048	7	1	0	0	0
July 2049	0	0	0	0	0
Weighted Average					
Life (years)	19.0	10.8	7.4	5.5	4.4

Security Group 10 PSA Prepayment Assumption Rates

		(	Class FC	2			Class	es FL aı	nd SL		Classes FM and SM						Classes FP and SP					
Distribution Date	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%		
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
July 2020	99	94	91	90	82	99	95	91	91	83	99	95	91	91	83	99	95	91	91	83		
July 2021	98	84	73	71	49	98	85	74	73	52	98	85	74	73	52	98	85	74	73	52		
July 2022	97	72	53	51	22	96	72	54	52	24	96	72	54	52	24	96	72	54	52	24		
July 2023	95	61	39	36	10	95	62	40	37	11	95	62	40	37	11	95	62	40	37	11		
July 2024	94	52	28	26	5	94	52	29	26	5	94	52	29	26	5	94	52	29	26	5		
July 2025	93	44	21	18	2	92	44	21	19	2	92	44	21	19	2	92	44	21	19	2		
July 2026	91	37	15	13	1	90	38	15	13	1	90	38	15	13	1	90	38	15	13	1		
July 2027	89	32	11	9	0	89	32	11	9	0	89	32	11	9	0	89	32	11	9	0		
July 2028	88	27	8	7	0	87	27	8	7	0	87	27	8	7	0	87	27	8	7	0		
July 2029	86	23	6	5	0	85	23	6	5	0	85	23	6	5	0	85	23	6	5	0		
July 2030	84	19	4	3	0	83	19	4	3	0	83	19	4	3	0	83	19	4	3	0		
July 2031	82	16	3	2	0	80	16	3	2	0	80	16	3	2	0	80	16	3	2	0		
July 2032	79	13	2	2	0	78	13	2	2	0	78	13	2	2	0	78	13	2	2	0		
July 2033	77	11	2	1	0	75	11	2	1	0	75	11	2	1	0	75	11	2	1	0		
July 2034	74	9	1	1	0	73	9	1	1	0	73	9	1	1	0	73	9	1	1	0		
July 2035	71	8	1	1	0	70	8	1	1	0	70	8	1	1	0	70	8	1	1	0		
July 2036	68	6	1	0	0	66	6	1	0	0	66	6	1	0	0	66	6	1	0	0		
July 2037	65	5	0	0	0	63	5	0	0	0	63	5	0	0	0	63	5	0	0	0		
July 2038	61	4	0	0	0	59	4	0	0	0	59	4	0	0	0	59	4	0	0	0		
July 2039	57	3	0	0	0	56	3	0	0	0	56	3	0	0	0	56	3	0	0	0		
July 2040	53	3	0	0	0	52	3	0	0	0	52	3	0	0	0	52	3	0	0	0		
July 2041	49	2	0	0	0	47	2	0	0	0	47	2	0	0	0	47	2	0	0	0		
July 2042	44	2	0	0	0	43	2	0	0	0	43	2	0	0	0	43	2	0	0	0		
July 2043	39	1	0	0	0	38	1	0	0	0	38	1	0	0	0	38	1	0	0	0		
July 2044	34	1	0	0	0	32	1	0	0	0	32	1	0	0	0	32	1	0	0	0		
July 2045	28	1	0	0	0	27	1	0	0	0	27	1	0	0	0	27	1	0	0	0		
July 2046	22	0	0	0	0	21	0	0	0	0	21	0	0	0	0	21	0	0	0	0		
July 2047	15	0	0	0	0	14	0	0	0	0	14	0	0	0	0	14	0	0	0	0		
July 2048	8	0	0	0	0	7	0	0	0	0	7	0	0	0	0	7	0	0	0	0		
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average											_					_						
Life (years)	19.9	6.8	4.1	3.9	2.2	19.6	6.8	4.2	3.9	2.3	19.6	6.8	4.2	3.9	2.3	19.6	6.8	4.2	3.9	2.3		

PSA Prepayment Assumption Rates

		Classe	s FW a	nd SW			Class	es FY a	nd SY			(	Class QA Class QB							
Distribution Date	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	99	93	93	93	93	100	100	85	83	51	99	94	90	90	88	98	94	91	91	90
July 2021	97	79	79	79	66	100	100	57	50	0	97	82	72	72	53	97	83	73	73	56
July 2022	96	62	62	62	30	100	100	30	20	0	95	68	51	51	24	95	69	52	52	26
July 2023	94	47	47	47	14	100	100	15	5	0	94	57	36	36	11	93	57	36	36	12
July 2024	92	35	35	35	6	100	100	10	0	0	92	46	25	25	5	91	47	25	25	5
July 2025	90	25	25	25	3	100	98	9	0	0	90	37	17	17	2	89	38	17	17	2
July 2026	88	18	18	18	1	100	93	8	0	0	88	30	12	12	1	87	30	12	12	1
July 2027	86	12	12	12	1	100	86	7	0	0	86	23	8	8	0	85	23	8	8	0
July 2028	83	9	9	9	0	100	77	5	0	0	83	17	5	5	0	82	17	6	6	0
July 2029	81	6	6	6	0	100	69	4	0	0	81	12	4	4	0	80	12	4	4	0
July 2030	78	4	4	4	0	100	60	3	0	0	78	8	3	3	0	77	8	3	3	0
July 2031	75	3	3	3	0	100	52	3	0	0	75	4	2	2	0	74	4	2	2	0
July 2032	72	2	2	2	0	100	45	2	0	0	72	1	1	1	0	71	1	1	1	0
July 2033	68	2	2	2	0	100	38	2	0	0	69	1	1	1	0	67	1	1	1	0
July 2034	65	1	1	1	0	100	32	1	0	0	65	1	1	1	0	64	1	1	1	0
July 2035	61	1	1	1	0	100	27	1	0	0	61	0	0	0	0	60	0	0	0	0
July 2036	57	0	0	0	0	100	23	1	0	0	57	0	0	0	0	56	0	0	0	0
July 2037	52	0	0	0	0	100	19	0	0	0	53	0	0	0	0	52	0	0	0	0
July 2038	47	0	0	0	0	100	15	0	0	0	49	0	0	0	0	47	0	0	0	0
July 2039	42	0	0	0	0	100	12	0	0	0	44	0	0	0	0	42	0	0	0	0
July 2040	37	0	0	0	0	100	10	0	0	0	39	0	0	0	0	37	0	0	0	0
July 2041	31	0	0	0	0	100	8	0	0	0	33	0	0	0	0	31	0	0	0	0
July 2042	24	0	0	0	0	100	6	0	0	0	27	0	0	0	0	26	0	0	0	0
July 2043	17	0	0	0	0	100	5	0	0	0	21	0	0	0	0	19	0	0	0	0
July 2044	10	0	0	0	0	100	3	0	0	0	14	0	0	0	0	13	0	0	0	0
July 2045	2	0	0	0	0	100	2	0	0	0	7	0	0	0	0	6	0	0	0	0
July 2046	0	0	0	0	0	82	2	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2047	0	0	0	0	0	57	1	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2048	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	16.9	4.5	4.5	4.5	2.7	28.2	13.3	2.9	2.1	1.0	17.2	5.3	3.8	3.8	2.4	16.9	5.4	3.8	3.8	2.4

Security Group 10 PSA Prepayment Assumption Rates

		-	Class SC	2			(	Class SI	)			(	Class US	5		Class UZ					
Distribution Date	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
July 2020	99	94	91	90	82	99	94	91	90	82	100	100	85	83	51	104	104	97	89	0	
July 2021	98	84	73	71	49	98	84	73	71	49	100	100	57	50	0	108	108	87	66	0	
July 2022	97	72	53	51	22	97	72	53	51	22	100	100	30	20	0	113	113	80	48	0	
July 2023	95	61	39	36	10	95	61	39	36	10	100	100	15	5	0	117	117	80	44	0	
July 2024	94	52	28	26	5	94	52	28	26	5	100	100	10	0	0	122	122	76	42	0	
July 2025	93	44	21	18	2	93	44	21	18	2	100	98	9	0	0	127	127	68	37	0	
July 2026	91	37	15	13	1	91	37	15	13	1	100	93	8	0	0	132	132	58	31	0	
July 2027	89	32	11	9	0	89	32	11	9	0	100	86	7	0	0	138	138	48	25	0	
July 2028	88	27	8	7	0	88	27	8	7	0	100	77	5	0	0	143	143	39	20	0	
July 2029	86	23	6	5	0	86	23	6	5	0	100	69	4	0	0	149	149	31	16	0	
July 2030	84	19	4	3	0	84	19	4	3	0	100	60	3	0	0	155	155	24	12	0	
July 2031	82	16	3	2	0	82	16	3	2	0	100	52	3	0	0	161	161	18	9	0	
July 2032	79	13	2	2	0	79	13	2	2	0	100	45	2	0	0	168	162	14	7	0	
July 2033	77	11	2	1	0	77	11	2	1	0	100	38	2	0	0	175	137	11	5	0	
July 2034	74	9	1	1	0	74	9	1	1	0	100	32	1	0	0	182	115	8	4	0	
July 2035	71	8	1	1	0	71	8	1	1	0	100	27	1	0	0	189	96	6	3	0	
July 2036	68	6	1	0	0	68	6	1	0	0	100	23	1	0	0	197	80	4	2	0	
July 2037	65	5	0	0	0	65	5	0	0	0	100	19	0	0	0	205	66	3	1	0	
July 2038	61	4	0	0	0	61	4	0	0	0	100	15	0	0	0	214	54	2	1	0	
July 2039	57	3	0	0	0	57	3	0	0	0	100	12	0	0	0	222	43	2	1	0	
July 2040	53	3	0	0	0	53	3	0	0	0	100	10	0	0	0	231	35	1	0	0	
July 2041	49	2	0	0	0	49	2	0	0	0	100	8	0	0	0	241	27	1	0	0	
July 2042	44	2	0	0	0	44	2	0	0	0	100	6	0	0	0	251	21	1	0	0	
July 2043	39	1	0	0	0	39	1	0	0	0	100	5	0	0	0	261	16	0	0	0	
July 2044	34	1	0	0	0	34	1	0	0	0	100	3	0	0	0	271	12	0	0	0	
July 2045	28	1	0	0	0	28	1	0	0	0	100	2	0	0	0	282	8	0	0	0	
July 2046	22	0	0	0	0	22	0	0	0	0	82	2	0	0	0	285	5	0	0	0	
July 2047	15	0	0	0	0	15	0	0	0	0	57	1	0	0	0	196	3	0	0	0	
July 2048	8	0	0	0	0	8	0	0	0	0	29	0	0	0	0	102	1	0	0	0	
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average																					
Life (years)	19.9	6.8	4.1	3.9	2.2	19.9	6.8	4.1	3.9	2.2	28.2	13.3	2.9	2.1	1.0	28.5	17.8	8.0	5.1	0.5	

PSA P	Prepayment Assumption Rates
	Classes VF and VS

	PSA Prepayment Assumption Rates														
		Class	es WF ar	nd WS			es YF an	nd YS				Class ZU	Ī		
Distribution Date	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%	0%	225%	430%	460%	900%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	99	93	93	93	93	100	100	85	83	51	104	104	97	91	0
July 2021	97	79	79	79	66	100	100	57	50	0	108	108	88	68	0
July 2022	96	62	62	62	30	100	100	30	20	0	113	113	80	48	0
July 2023	94	47	47	47	14	100	100	15	5	0	117	117	80	45	0
July 2024	92	35	35	35	6	100	100	10	0	0	122	122	77	42	0
July 2025	90	25	25	25	3	100	98	9	0	0	127	127	69	37	0
July 2026	88	18	18	18	1	100	93	8	0	0	132	132	59	31	0
July 2027	86	12	12	12	1	100	86	7	0	0	138	138	48	26	0
July 2028	83	9	9	9	0	100	77	5	0	0	143	143	39	20	0
July 2029	81	6	6	6	0	100	69	4	0	0	149	149	31	16	0
July 2030	78	4	4	4	0	100	60	3	0	0	155	155	24	12	0
July 2031	75	3	3	3	0	100	52	3	0	0	161	161	19	9	0
July 2032	72	2	2	2	0	100	45	2	0	0	168	162	14	7	0
July 2033	68	2	2	2	0	100	38	2	0	0	175	138	11	5	0
July 2034	65	1	1	1	0	100	32	1	0	0	182	116	8	4	0
July 2035	61	1	1	1	0	100	27	1	0	0	189	97	6	3	0
July 2036	57	0	0	0	0	100	23	1	0	0	197	80	4	2	0
July 2037	52	0	0	0	0	100	19	0	0	0	205	66	3	1	0
July 2038	47	0	0	0	0	100	15	0	0	0	214	54	2	1	0
July 2039	42	0	0	0	0	100	12	0	0	0	222	43	2	1	0
July 2040	37	0	0	0	0	100	10	0	0	0	231	35	1	1	0
July 2041	31	0	0	0	0	100	8	0	0	0	241	27	1	0	0
July 2042	24	0	0	0	0	100	6	0	0	0	251	21	1	0	0
July 2043	17	0	0	0	0	100	5	0	0	0	261	16	0	0	0
July 2044	10	0	0	0	0	100	3	0	0	0	271	12	0	0	0
July 2045	2	0	0	0	0	100	2	0	0	0	282	8	0	0	0
July 2046	0	0	0	0	0	82	2	0	0	0	274	5	0	0	0
July 2047	0	0	0	0	0	57	1	0	0	0	189	3	0	0	0
July 2048	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	29	0	Ŏ	Ŏ	Ŏ	97	ĭ	Ŏ	Ŏ	Ŏ
July 2049	0	0	0	0	0	Ó	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	16.9	4.5	4.5	4.5	2.7	28.2	13.3	2.9	2.1	1.0	28.5	17.8	8.1	5.2	0.6

Security Group 11 PSA Prepayment Assumption Rates

		Classo	es FH a	nd SH			Classo	es HF a	nd HS			Class	es PF aı		Clas	Classes QC, QD, QE, QG, QH, QI, QJ and QK					
Distribution Date	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%	0%	200%	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	
July 2020	99	95	94	94	90	99	95	94	94	90	99	95	94	94	90	98	94	94	94	94	
July 2021	98	86	84	81	71	98	86	84	81	71	98	86	84	81	71	96	83	83	83	79	
July 2022	96	75	70	66	49	96	75	70	66	49	96	75	70	66	49	94	69	69	69	54	
July 2023	95	65	59	53	34	95	65	59	53	34	95	65	59	53	34	92	57	57	57	36	
July 2024	94	56	49	43	23	94	56	49	43	23	94	56	49	43	23	90	46	46	46	24	
July 2025	92	48	41	34	16	92	48	41	34	16	92	48	41	34	16	87	37	37	37	15	
July 2026	90	42	34	27	11	90	42	34	27	11	90	42	34	27	11	85	29	29	29	10	
July 2027	89	36	28	22	7	89	36	28	22	7	89	36	28	22	7	82	23	23	23	6	
July 2028	87	31	23	18	5	87	31	23	18	5	87	31	23	18	5	79	17	17	17	3	
July 2029	85	26	19	14	3	85	26	19	14	3	85	26	19	14	3	76	13	13	13	1	
July 2030	83	22	16	11	2	83	22	16	11	2	83	22	16	11	2	73	10	10	10	0	
July 2031	80	19	13	9	2	80	19	13	9	2	80	19	13	9	2	69	7	7	7	0	
July 2032	78	16	11	7	1	78	16	11	7	1	78	16	11	7	1	66	5	5	5	0	
July 2033	75	14	9	6	1	75	14	9	6	1	75	14	9	6	1	62	4	4	4	0	
July 2034	73	12	7	4	0	73	12	7	4	0	73	12	7	4	0	58	2	2	2	0	
July 2035	70	10	6	3	0	70	10	6	3	0	70	10	6	3	0	53	1	1	1	0	
July 2036	66	8	5	3	0	66	8	5	3	0	66	8	5	3	0	49	0	0	0	0	
July 2037	63	7	4	2	0	63	7	4	2	0	63	7	4	2	0	44	0	0	0	0	
July 2038	59	6	3	2	0	59	6	3	2	0	59	6	3	2	0	38	0	0	0	0	
July 2039	56	>	2	1	0	56	>	2	1	0	56	5	2	1	0	33	0	0	0	0	
July 2040	52	4	2	1	0	52	4	2	1	0	52	4	2	1	0	27	0	0	0	0	
July 2041	47	3	1	1	0	47	3	1	1	0	47	3	1	1	0	21	0	0	0	0	
July 2042	43	2	1	0	0	43	2	1	0	0	43	2	1	0	0	14	0	0	0	0	
July 2043	38	2	1	0	0	38	2	1	0	0	38	2	1	0	0	/	0	0	0	0	
July 2044	32	1	1	0	0	32	1	1	0	0	32	1	1	0	0	0	0	0	0	0	
July 2045	27	1	0	0	0	27	1	0	0	0	27	1	0	0	0	0	0	0	0	0	
July 2046	21	1	0	0	0	21	1	0	0	0	21	1	0	0	0	0	0	0	0	0	
July 2047	14	0	0	0	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0	0	
July 2048	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July 2049 Weighted Average	U	0	Ü	Ü	U	U	0	Ü	Ü	U	U	0	0	0	U	0	U	U	0	U	
Life (years)	19.6	7.4	6.3	5.5	3.7	19.6	7.4	6.3	5.5	3.7	19.6	7.4	6.3	5.5	3.7	15.4	5.5	5.5	5.5	3.7	

	PSA Prepayment Assumption Rates														
		Class	es QF an	ıd QS				Class QY	,				Class ZA		
Distribution Date	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	98	94	94	94	94	100	100	100	100	100	104	104	96	89	58
July 2021	96	83	83	83	79	100	100	100	100	100	108	108	84	60	0
July 2022	94	70	70	70	55	100	100	100	100	100	113	113	70	29	0
July 2023	92	58	58	58	38	100	100	100	100	100	117	117	62	10	0
July 2024	90	48	48	48	26	100	100	100	100	100	122	122	59	1	0
July 2025	88	38	38	38	18	100	100	100	100	100	127	127	59	0	0
July 2026	85	31	31	31	12	100	100	100	100	100	132	127	58	0	0
July 2027	83	25	25	25	8	100	100	100	100	100	138	124	55	Õ	Õ
July 2028	80	20	20	20	6	100	100	100	100	100	143	118	52	0	Õ
July 2029	77	16	16	16	4	100	100	100	100	100	149	110	48	ő	Ŏ
July 2030	74	13	13	13	3	100	100	100	100	93	155	102	43	ő	Ő
July 2031	70	10	10	10	2	100	100	100	100	63	161	93	38	Ŏ	Õ
July 2032	67	8	8	8	1	100	100	100	100	43	168	83	34	ő	0
July 2033	63	6	6	6	1	100	100	100	100	29	175	74	29	Ő	0
July 2034	59	5	5	5	1	100	100	100	100	19	182	66	25	0	0
r 1 2005	55	4	4	4	0	100	100	100	100	13	189	57	22	0	0
T 1 2026	50	3	3	3	0	100	100	100	100	9	197	50	18	0	0
2 2 -	50 45	2			-		81	81	81	6			16		-
July 2037	40	2	2	2	0	100				-	205	43		0	0
July 2038		2	2	2	0	100	63	63	63	4	214	36	13	0	0
July 2039	35	1	1	1	0	100	48	48	48	2	222	30	11	0	0
July 2040	29	1	1	1	0	100	36	36	36	2	231	25	9	0	0
July 2041	23	1	1	1	0	100	27	27	27	1	241	21	7	0	0
July 2042	17	1	1	1	0	100	20	20	20	1	251	17	5	0	0
July 2043	10	0	0	0	0	100	14	14	14	0	261	13	4	0	0
July 2044	2	0	0	0	0	84	10	10	10	0	271	10	3	0	0
July 2045	0	0	0	0	0	6	6	6	6	0	238	7	2	0	0
July 2046	0	0	0	0	0	4	4	4	4	0	185	5	1	0	0
July 2047	0	0	0	0	0	2	2	2	2	0	127	3	1	0	0
July 2048	0	0	0	0	0	1	1	1	1	0	66	1	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	15.7	5.9	5.9	5.9	4.0	25.3	20.6	20.6	20.6	13.4	27.8	16.0	9.7	2.4	1.1

Security Groups 10 and 11 PSA Prepayment Assumption Rates

	Classes CF and CS											Class KF						
Distribution Date	0%	200%	225%	250%	300%	430%	460%	500%	900%	0%	200%	225%	250%	300%	430%	460%	500%	900%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	99	95	95	94	94	91	91	90	83	99	95	95	94	94	91	91	90	83
July 2021	98	86	85	84	81	74	73	71	52	98	86	85	84	81	74	73	71	52
July 2022	96	75	72	70	66	54	52	49	24	96	75	72	70	66	54	52	49	24
July 2023	95	65	62	59	53	40	37	34	11	95	65	62	59	53	40	37	34	11
July 2024	94	56	52	49	43	29	26	23	5	94	56	52	49	43	29	26	23	5
July 2025	92	48	44	41	34	21	19	16	2	92	48	44	41	34	21	19	16	2
July 2026	90	42	38	34	27	15	13	11	1	90	42	38	34	27	15	13	11	1
July 2027	89	36	32	28	22	11	9	7	0	89	36	32	28	22	11	9	7	0
July 2028	87	31	27	23	18	8	7	5	0	87	31	27	23	18	8	7	5	0
July 2029	85	26	23	19	14	6	5	3	0	85	26	23	19	14	6	5	3	0
July 2030	83	22	19	16	11	4	3	2	0	83	22	19	16	11	4	3	2	0
July 2031	80	19	16	13	9	3	2	2	0	80	19	16	13	9	3	2	2	0
July 2032	78	16	13	11	7	2	2	1	0	78	16	13	11	7	2	2	1	0
July 2033	75	14	11	9	6	2	1	1	0	75	14	11	9	6	2	1	1	0
July 2034	73	12	9	7	4	1	1	0	0	73	12	9	7	4	1	1	0	0
July 2035	70	10	8	6	3	1	1	0	0	70	10	8	6	3	1	1	0	0
July 2036	66	8	6	5	3	1	0	0	0	66	8	6	5	3	1	0	0	0
July 2037	63	7	5	4	2	0	0	0	0	63	7	5	4	2	0	0	0	0
July 2038	59	6	4	3	2	0	0	0	0	59	6	4	3	2	0	0	0	0
July 2039	56	5	3	2	1	0	0	0	0	56	5	3	2	1	0	0	0	0
July 2040	52	4	3	2	1	0	0	0	0	52	4	3	2	1	0	0	0	0
July 2041	47	3	2	1	1	0	0	0	0	47	3	2	1	1	0	0	0	0
July 2042	43	2	2	1	0	0	0	0	0	43	2	2	1	0	0	0	0	0
July 2043	38	2	1	1	0	0	0	0	0	38	2	1	1	0	0	0	0	0
July 2044	32	1	1	1	0	0	0	0	0	32	1	1	1	0	0	0	0	0
July 2045	27	1	1	0	0	0	0	0	0	27	1	1	0	0	0	0	0	0
July 2046	21	1	0	0	0	0	0	0	0	21	1	0	0	0	0	0	0	0
July 2047	14	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
July 2048	7	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																		
Life (years)	19.6	7.4	6.8	6.3	5.5	4.2	3.9	3.7	2.3	19.6	7.4	6.8	6.3	5.5	4.2	3.9	3.7	2.3

PSA	Prepayment	Assumption	Rates

	For Frepayment Assumption Rates																	
	Class KS Class SE																	
Distribution Date	0%	200%	225%	250%	300%	430%	460%	500%	900%	0%	200%	225%	250%	300%	430%	460%	500%	900%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	99	95	95	94	94	91	91	90	83	99	95	95	94	94	91	91	90	83
July 2021	98	86	85	84	81	74	73	71	52	98	86	85	84	81	74	73	71	52
July 2022	96	75	72	70	66	54	52	49	24	96	75	72	70	66	54	52	49	24
July 2023	95	65	62	59	53	40	37	34	11	95	65	62	59	53	40	37	34	11
July 2024	94	56	52	49	43	29	26	23	5	94	56	52	49	43	29	26	23	5
July 2025	92	48	44	41	34	21	19	16	2	92	48	44	41	34	21	19	16	2
July 2026	90	42	38	34	27	15	13	11	1	90	42	38	34	27	15	13	11	1
July 2027	89	36	32	28	22	11	9	7	0	89	36	32	28	22	11	9	7	0
July 2028	87	31	27	23	18	8	7	5	Ő	87	31	27	23	18	8	ź	5	ŏ
July 2029	85	26	23	19	14	6	5	3	0	85	26	23	19	14	6	5	3	Ô
July 2030	83	22	19	16	11	4	3	2	0	83	22	19	16	11	4	3	2	0
July 2031	80	19	16	13	9	3	2	2	0	80	19	16	13	9	3	2	2	0
x 1 2022	78	16	13	11	7	2	2	1	0	78	16	13	11	7	2	2	1	0
* 1 aaaa	75	14	11	9	6	2	1	1	0	75	14	11	9	6	2	1	1	0
7.1. 202/	73	12	9	7	4	1	1	0	0	73	12	9	7	4	1	1	0	0
	70	10	8	6	4	1	1	0	0	70	10		6	2	1	1	0	0
July 2035	66	8	2	0	3	1	0	0	0	66		8	0	2	1	1	0	0
July 2036		0	0	2	2	1		0	0		8	0	2	2	1	0	0	0
July 2037	63	/	2	4	_	0	0	0	0	63	/	2	4	2	0	0	0	0
July 2038	59	0	4	5	2	0	0	0	0	59	6	4	5	2	0	0	0	0
July 2039	56	>	5	2	1	0	0	0	0	56	5	5	2	1	0	0	0	0
July 2040	52	4	3	2	1	0	0	0	0	52	4	3	2	1	0	0	0	0
July 2041	47	3	2	1	1	0	0	0	0	47	3	2	1	1	0	0	0	0
July 2042	43	2	2	1	0	0	0	0	0	43	2	2	1	0	0	0	0	0
July 2043	38	2	1	1	0	0	0	0	0	38	2	1	1	0	0	0	0	0
July 2044	32	1	1	1	0	0	0	0	0	32	1	1	1	0	0	0	0	0
July 2045	27	1	1	0	0	0	0	0	0	27	1	1	0	0	0	0	0	0
July 2046	21	1	0	0	0	0	0	0	0	21	1	0	0	0	0	0	0	0
July 2047	14	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
July 2048	7	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																		
Life (years)	19.6	7.4	6.8	6.3	5.5	4.2	3.9	3.7	2.3	19.6	7.4	6.8	6.3	5.5	4.2	3.9	3.7	2.3

Security Groups 10 and 11 PSA Prepayment Assumption Rates

	Class SQ									Class Z								
Distribution Date	0%	200%	225%	250%	300%	430%	460%	500%	900%	0%	200%	225%	250%	300%	430%	460%	500%	900%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July 2020	99	95	95	94	94	91	91	90	83	104	104	103	102	100	90	83	75	0
July 2021	98	86	85	84	81	74	73	71	52	108	108	105	102	96	64	49	29	0
July 2022	96	75	72	70	66	54	52	49	24	113	113	107	101	91	59	35	5	0
July 2023	95	65	62	59	53	40	37	34	11	117	117	110	103	89	59	33	0	0
July 2024	94	56	52	49	43	29	26	23	5	122	122	114	105	90	56	31	0	0
July 2025	92	48	44	41	34	21	19	16	2	127	127	118	109	94	50	27	0	0
July 2026	90	42	38	34	27	15	13	11	1	132	131	121	113	97	43	23	0	0
July 2027	89	36	32	28	22	11	9	7	0	138	134	125	116	101	35	19	0	0
July 2028	87	31	27	23	18	8	7	5	0	143	137	127	119	106	29	15	0	0
July 2029	85	26	23	19	14	6	5	3	0	149	139	130	122	103	23	12	0	0
July 2030	83	22	19	16	11	4	3	2	0	155	141	133	126	86	18	9	0	0
July 2031	80	19	16	13	9	3	2	2	0	161	143	136	123	71	14	7	0	0
July 2032	78	16	13	11	7	2	2	1	0	168	146	134	104	58	10	5	0	0
July 2033	75	14	11	9	6	2	1	1	0	175	148	114	87	47	8	4	0	0
July 2034	73	12	9	7	4	1	1	0	0	182	127	96	72	38	6	3	0	0
July 2035	70	10	8	6	3	1	1	0	0	189	108	81	60	30	4	2	0	0
July 2036	66	8	6	- 5	3	1	0	0	0	197	91	67	49	24	3	1	0	0
July 2037	63	7	5	4	2	0	0	0	0	205	77	56	40	19	2	1	0	0
July 2038	59	6	4	3	2	0	0	0	0	214	64	46	32	15	2	1	0	0
July 2039	56	- 5	3	2	1	0	0	0	0	222	53	37	26	11	1	1	0	0
July 2040	52	4	3	2	1	0	0	0	0	231	43	30	20	9	1	0	0	0
July 2041	47	3	2	1	1	0	0	0	0	241	34	23	16	6	1	0	0	0
July 2042	43	2	2	1	0	0	0	0	0	251	27	18	12	5	0	0	0	0
July 2043	38	2	1	1	0	0	0	0	0	261	21	14	9	3	0	0	0	0
July 2044	32	1	1	1	0	0	0	0	0	271	16	10	7	2	0	0	0	0
July 2045	27	1	1	0	0	0	0	0	0	271	11	7	4	2	0	0	0	0
July 2046	21	1	0	0	0	0	0	0	0	254	7	5	3	1	0	0	0	0
July 2047	14	0	0	0	0	0	0	0	0	175	4	3	2	1	0	0	0	0
July 2048	7	0	0	0	0	0	0	0	0	90	2	1	1	0	0	0	0	0
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																		
Life (years)	19.6	7.4	6.8	6.3	5.5	4.2	3.9	3.7	2.3	28.4	19.1	17.9	16.6	13.2	6.3	4.1	1.6	0.6

Security Group 12 PSA Prepayment Assumption Rates

		(	Class HI	P		Class HZ 6 0% 150% 190% 225% 400%			Classe	s IP, PA PI	, PB, PC H and P		PE, PG,		Class	ses P an	ıd PI			
Distribution Date	0%	150%	190%	225%	400%	0%	150%	190%	225%	400%	0%	150%	190%	225%	400%	0%	150%	190%	225%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	90	76	76	76	76	104	104	98	92	66	100	100	100	100	100	98	95	95	95	95
July 2020 July 2021	79 79	33	33		24	104	104	98 87	69	00	100	100	100	100	100	96 96	95 87	95 87	95 87	95 85
2 2	68	0	0	33	0	111	111		40	0	100	95	95	95	80	94	76	76	76	64
July 2022 July 2023	56	0	0	0	0	111	115	73 63	20	0	100	82	82	82	59	91	66	66	66	47
July 2024	44	0	0	0	0	119	119	57	20	0	100	71	71	71	39 44	89	57	57	57	35
	31	0	0	0	0	123	123	55	1	0	100	60	60	60		86	48	48	48	26
July 2025	18	0	0	0		123	128	56	1	0	100			51	33 24	84	40	48	40	19
July 2026	4	0	0	0	0	132	129	56	0	0	100	51 43	51 43	43	18	81	34	34	34	19
July 2027 July 2028	0	0	0	0	0	137	129	54	0	0	97	36	36	36	13	78	29	29	29	11
July 2029	0	0	0	0	0	142	124	52	0	0	93	30	30	30	10	75	24	24	24	8
July 2030	0	0	0	0	0	147	119	49	0	0	89 89	25	25	25	7	71	20	20	20	6
July 2031	0	0	0	0	0	152	112	45	0	0	85	21	21	21	5	68	17	17	17	4
July 2032	0	0	0	0	0	158	105	42	0	0	81	18	18	18	4	64	14	14	14	2
July 2033	0	0	0	0	0	163	97	38	0	0	76	15	15	15	3	61	12	12	12	2
July 2034	0	0	0	ő	0	169	88	34	0	0	71	12	12	12	2	57	10	10	10	2
July 2035	0	0	0	0	0	175	80	30	0	0	66	10	10	10	1	53	8	8	8	1
July 2036	0	0	Ő	ő	ő	181	72	27	ő	ő	60	8	8	8	1	48	6	6	6	1
July 2037	0	0	0	0	0	188	64	24	0	0	55	7	7	7	1	44	5	5	5	1
July 2038	0	0	0	0	0	194	56	20	0	0	49	5	5	5	1	39	4	4	4	0
July 2039	0	0	Ő	ő	ő	201	49	17	ő	ő	43	4	4	4	0	34	3	3	3	0
July 2040	0	0	0	ő	ő	208	42	15	ő	ő	36	3	3	3	ő	29	3	3	3	Õ
July 2041	Ő	ő	Ŏ	Ő	ő	216	36	12	Ő	ő	29	3	3	3	Ő	23	2	2	2	ő
July 2042	ŏ	Ő	Ő	Ő	ŏ	223	29	10	Ő	Ŏ	22	2	2	2	Ŏ	18	2	2	2	Ŏ
July 2043	Õ	0	0	Ő	Ö	231	24	8	Ő	Õ	14	2	2	2	0	12	1	1	1	0
July 2044	Õ	0	0	0	Ö	240	19	6	Ő	Õ	7	1	1	1	0	5	1	1	1	0
July 2045	Ő	Ö	Õ	Ő	Ŏ	229	14	5	Ő	Ő	1	1	1	1	Ö	í	1	1	1	Ŏ
July 2046	0	0	0	0	0	177	10	3	0	0	1	1	1	1	0	0	0	0	0	0
July 2047	0	0	0	0	0	121	6	2	0	0	0	0	0	0	0	0	0	0	0	0
July 2048	Ŏ	Ö	Ŏ	Ő	Ŏ	62	3	1	Ő	Õ	Ŏ	Õ	Ö	Ö	Ö	Ŏ	Ŏ	Õ	Ö	Ŏ
July 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	4.4	1.6	1.6	1.6	1.5	27.9	18.4	10.8	2.8	1.2	18.3	8.6	8.6	8.6	5.6	15.5	7.2	7.2	7.2	4.8

#### **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 2, 3 and 8 Securities, the investor's own projection of payment rates on the Underlying Certificates under a variety of scenarios and, in the case of a Floating Rate or an Inverse Floating Rate Class, the investor's own projection of levels of LIBOR under a variety of scenarios. **No representation is made regarding Mortgage Loan prepayment rates, Underlying Certificate payment rates, LIBOR levels or the yield of any Class.** 

Prepayments: Effect on Yields

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

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

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

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

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

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

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

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

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

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

Payment Delay: Effect on Yields of the Fixed Rate Classes

The effective yield on any Fixed Rate 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 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 AI to Prepayments Assumed Price 16.0%**\*

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

100%	237%	312%	400%	500%
18.1%	6.9%	0.0%	(8.8)%	(19.9)%

### **Sensitivity of Class AS to Prepayments** Assumed Price 15.25%\*

## **PSA Prepayment Assumption Rates**

LIBOR	100%	237%	400%	500%
1.0000%	24.4%	13.3%	(2.2)%	(13.1)%
2.3250%	14.7%	3.5%	(12.4)%	(23.7)%
4.2125%	(0.1)%	(11.9)%	(29.5)%	(41.7)%
6.1000% and above	**	**	**	3636

### **Sensitivity of Class BI to Prepayments Assumed Price 54.0%\***

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

100%	237%	400%	431%	500%
6.1%	4.8%	1.0%	0.0%	(2.5)%

### **Sensitivity of Class BS to Prepayments** Assumed Price 48.0%\*

#### **PSA Prepayment Assumption Rates** LIBOR 100% 237% 400% 500% 9.3% 8.3% 5.0% 1.9% 5.5% 4.1% 0.2% (3.4)%(1.4)%(3.4)%(8.8)%(13.3)% 6.1000% and above . . . . . . . . . . . .

### **Sensitivity of Class CI to Prepayments** Assumed Price 17.875%\*

100%	237%	320%	400%	500%
15.5%	6.0%	0.1%	(5.9)%	(13.6)%

<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 SA to Prepayments Assumed Price 17.125%\*

	PSA Prepayment Assumption Rates										
LIBOR	100%	237%	400%	500%							
1.0000%	21.0%	11.3%	(0.9)%	(8.8)%							
2.3250%	12.4%	3.0%	(8.8)%	(16.4)%							
4.2125%	(0.8)%	(9.7)%	(20.7)%	(27.9)%							
6.1000% and above	**	**	**	afeafe							

#### **SECURITY GROUP 2**

### Sensitivity of Class IK to Prepayments Assumed Price 18.5625%\*

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

200%	370%	470%	700%	1,000%
6.8%	0.0%	(6.7)%	(23.0)%	(44.3)%

### **SECURITY GROUP 4**

### Sensitivity of Class IO to Prepayments Assumed Price 9.25%\*

### **PSA Prepayment Assumption Rates**

150%	300%	450%	600%	859%
36.6%	29.2%	21.6%	13.8%	0.0%

### **SECURITY GROUP 5**

### Sensitivity of Class IM to Prepayments Assumed Price 9.5%\*

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

		, ,		
250%	300%	500%	600%	969%
21.6%	21.6%	21.6%	17.8%	0.0%

### Sensitivity of Class MI to Prepayments Assumed Price 10.5%\*

250%	300%	500%	600%	878%
17.0%	17.0%	17.0%	13.2%	0.0%

<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 IJ to Prepayments Assumed Price 0.625%\*

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

150%	300%	319%	450%	600%
9.0%	1.1%	0.1%	(7.2)%	(15.8)%

### Sensitivity of Class JI to Prepayments Assumed Price 0.078125%\*

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

150%	300%	450%	600%	739%
104.9%	72.5%	44.6%	20.1%	0.0%

### Sensitivity of Class JS to Prepayments Assumed Price 1.25%\*

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

LIBOR	150%	300%	450%	600%
1.0000%	283.4%	251.7%	221.1%	192.3%
2.3250%	101.7%	69.3%	41.4%	17.0%
3.0625%	9.7%	(24.0)%	(49.9)%	(70.7)%
3.8000% and above	**	**	**	**

### Sensitivity of Class NI to Prepayments Assumed Price 21.0%\*

### **PSA Prepayment Assumption Rates**

150%	300%	<u>371%</u>	450%	600%
12.0%	3.9%	0.0%	(4.4)%	(12.9)%

### Sensitivity of Class SJ to Prepayments Assumed Price 9.5%\*

LIBOR	150%	300%	450%	600%
1.0000%	26.1%	19.3%	12.0%	4.5%
2.3250%	8.5%	0.6%	(7.7)%	(16.3)%
3.0625%	(2.4)%	(10.8)%	(19.7)%	(29.0)%
3.8000% and above	**	**	**	**

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

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

### Sensitivity of Class GS to Prepayments Assumed Price 6.5%\*

	PSA Prepayment Assumption Rates			
LIBOR	150%	300%	450%	600%
1.00000%	28.1%	20.9%	13.5%	6.0%
2.40175%	3.0%	(5.3)%	(13.8)%	(22.7)%
2.84588%	(6.0)%	(14.6)%	(23.5)%	(32.9)%
3.29000% and above	**	**	**	**

### Sensitivity of Class LS to Prepayments Assumed Price 6.5%\*

	PSA Prepayment Assumption Rates			
LIBOR	150%	300%	450%	600%
1.00000%	28.1%	20.9%	13.5%	6.0%
2.40175%	3.0%	(5.3)%	(13.8)%	(22.7)%
2.84588%	(6.0)%	(14.6)%	(23.5)%	(32.9)%
3.29000% and above	**	**	**	**

### Sensitivity of Class SG to Prepayments Assumed Price 6.5%\*

	PS	PSA Prepayment Assumption Rates			
LIBOR	150%	300%	450%	600%	
1.00000%	28.1%	20.9%	13.5%	6.0%	
2.40175%	3.0%	(5.3)%	(13.8)%	(22.7)%	
2.84588%	(6.0)%	(14.5)%	(23.5)%	(32.9)%	
3.29000% and above	**	***	***	**	

#### **SECURITY GROUP 8**

### Sensitivity of Class DI to Prepayments Assumed Price 13.25%\*

# PSA Prepayment Assumption Rates 237% 367% 400%

100%	237%	367%	400%	500%
24.6%	13.0%	0.0%	(3.6)%	(15.2)%

<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 DS to Prepayments Assumed Price 12.375%\*

	PS	PSA Prepayment Assumption Rates			
LIBOR	100%	237%	400%	500%	
1.0000%	33.4%	21.7%	5.4%	(6.1)%	
2.3250%	21.4%	9.7%	(7.0)%	(18.8)%	
4.2125%	3.7%	(8.7)%	(27.1)%	(39.9)%	
6.1000% and above	**	**	**	**	

### Sensitivity of Class EI to Prepayments Assumed Price 58.625%\*

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

100%	237%	368%	400%	500%
5.4%	3.6%	0.0%	(1.1)%	(5.1)%

### Sensitivity of Class ES to Prepayments Assumed Price 49.375%\*

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

LIBOR	100%	237%	400%	500%
1.0000%	9.1%	7.7%	3.8%	0.2%
2.3250%	5.4%	3.6%	(1.1)%	(5.1)%
4.2125%	(1.3)%	(3.9)%	(10.1)%	(15.1)%
6.1000% and above	**	**	**	**

### Sensitivity of Class GI to Prepayments Assumed Price 16.125%\*

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

100%	237%	362%	400%	500%
18.9%	9.3%	0.1%	(2.8)%	(10.6)%

### Sensitivity of Class SB to Prepayments Assumed Price 14.24%\*

LIBOR	100%	237%	400%	500%
1.0000%	28.1%	18.1%	5.5%	(2.6)%
2.3250%	17.8%	8.2%	(3.8)%	(11.6)%
4.2125%	2.6%	(6.4)%	(17.6)%	(24.9)%
6.1000% and above	**	**	**	**

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

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

### Sensitivity of Class S to Prepayments Assumed Price 5.75%\*

	PSA Prepayment Assumption Rates			
LIBOR	100%	200%	300%	400%
1.0000%	35.9%	31.1%	26.2%	21.3%
2.3250%	9.5%	4.1%	(1.4)%	(7.1)%
2.8125%	(1.0)%	(6.6)%	(12.3)%	(18.3)%
3.3000% and above	**	**	**	**

#### **SECURITY GROUP 10**

### Sensitivity of Class SC to Prepayments Assumed Price 13.125%\*

LIBOR	PSA Prepayment Assumption Rates			
	225%	430%	460%	900%
1.0000%	29.0%	18.2%	16.5%	(8.3)%
2.3250%	17.2%	5.8%	4.2%	(22.0)%
4.2375%	0.0%	(12.1)%	(13.9)%	(42.7)%
6.1500% and above	**	**	**	**

### Sensitivity of Class SD to Prepayments Assumed Price 13.125%\*

	PS	SA Prepayment	Assumption Rates			
LIBOR	225%	430%	460%	900%		
1.0000%	29.0%	18.2%	16.5%	(8.3)%		
2.3250%	17.2%	5.8%	4.2%	(22.0)%		
4.2375%	0.0%	(12.1)%	(13.9)%	(42.7)%		
6.1500% and above	**	**	**	***		

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

LIBOR	PS	PSA Prepayment Assumption Rates			
	225%	430%	460%	900%	
1.0000%	27.5%	16.9%	15.4%	(8.6)%	
2.3250%	15.9%	4.9%	3.2%	(22.2)%	
4.2125%	(0.6)%	(12.6)%	(14.4)%	(42.6)%	
6.1000% and above	**	**	**	**	

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

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

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

	PSA Prepayment Assumption Rates			
LIBOR	225%	430%	460%	900%
1.0000%	27.5%	16.9%	15.4%	(8.6)%
2.3250%	15.9%	4.9%	3.2%	(22.2)%
4.2125%	(0.6)%	(12.6)%	(14.4)%	(42.6)%
6.1000% and above	**	**	**	3/4-3/4

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

LIBOR	PSA Prepayment Assumption Rates			
	225%	430%	460%	900%
1.0000%	27.5%	16.9%	15.4%	(8.6)%
2.3250%	15.9%	4.9%	3.2%	(22.2)%
4.2125%	(0.6)%	(12.6)%	(14.4)%	(42.6)%
6.1000% and above	**	**	**	**

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

	PS	A Prepayment	Assumption Rates			
LIBOR	225%	430%	460%	900%		
1.0000%	10.4%	10.4%	10.4%	(11.4)%		
2.3250%	0.4%	0.4%	0.4%	(23.7)%		
4.2375%	(14.9)%	(14.9)%	(14.9)%	(42.9)%		
6.1500% and above	**	**	***	**		

### Sensitivity of Class SY to Prepayments Assumed Price 2.25%\*

	PSA Prepayment Assumption Rates			
LIBOR	225%	430%	460%	900%
1.0000%	353.8%	316.5%	310.5%	219.3%
2.3250%	242.2%	206.7%	200.8%	114.3%
4.2375%	106.9%	70.7%	62.7%	(20.6)%
6.1500% and above	**	**	**	4040

<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 US to Prepayments Assumed Price 2.25%\*

	<b>PSA Prepayment Assumption Rates</b>					
LIBOR	225%	430%	460%	900%		
1.0000%	353.8%	316.5%	310.5%	219.3%		
2.3250%	242.2%	206.7%	200.8%	114.3%		
4.2375%	106.9%	70.7%	62.7%	(20.6)%		
6.1500% and above	**	**	**	3/43/4		

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

	PSA Prepayment Assumption Rates						
LIBOR	225%	430%	460%	900%			
1.0000%	10.4%	10.4%	10.4%	(11.4)%			
2.3250%	0.4%	0.4%	0.4%	(23.7)%			
4.2375%	(14.9)%	(14.9)%	(14.9)%	(42.9)%			
6.1500% and above	**	**	**	神神			

### Sensitivity of Class YS to Prepayments Assumed Price 2.25%\*

	PSA Prepayment Assumption Rates						
LIBOR	225%	430%	460%	900%			
1.0000%	353.8%	316.5%	310.5%	219.3%			
2.3250%	242.2%	206.7%	200.8%	114.3%			
4.2375%	106.9%	70.7%	62.7%	(20.6)%			
6.1500% and above	**	**	**	**			

### **SECURITY GROUP 11**

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

	PSA Prepayment Assumption Rates					
LIBOR	200%	250%	300%	500%		
1.0000%	28.8%	26.2%	23.7%	13.3%		
2.3250%	17.3%	14.6%	11.9%	1.0%		
4.2125%	0.8%	(2.0)%	(4.9)%	(16.8)%		
6.1000% and above	**	**	**	4040		

<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 PS to Prepayments Assumed Price 13.5%\*

	PSA Prepayment Assumption Rates					
LIBOR	200%	250%	300%	500%		
1.0000%	28.8%	26.2%	23.7%	13.3%		
2.3250%	17.3%	14.6%	11.9%	1.0%		
4.2125%	0.8%	(2.0)%	(4.9)%	(16.8)%		
6.1000% and above	**	**	**	**		

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

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

200%	250%	300%	500%	619%
17.4%	17.4%	17.4%	7.1%	0.0%

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

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

LIBOR	200%	250%	300%	500%
1.0000%	20.9%	20.9%	20.9%	11.9%
2.3250%	10.3%	10.3%	10.3%	0.3%
4.2125%	(5.4)%	(5.4)%	(5.4)%	(16.9)%
6.1000% and above	**	**	**	**

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

LIBOR	200%	250%	300%	500%
1.0000%	28.8%	26.2%	23.7%	13.3%
2.3250%	17.3%	14.6%	11.9%	1.0%
4.2125%	0.8%	(2.0)%	(4.9)%	(16.8)%
6.1000% and above	**	**	**	**

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

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

### **SECURITY GROUPS 10 AND 11**

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

PSA	<b>Prepayment</b>	Assumption	Rates
-----	-------------------	------------	-------

LIBOR	200%	225%	250%	300%	430%	460%	500%	900%
1.0000%	28.8%	27.5%	26.2%	23.7%	16.9%	15.4%	13.3%	(8.6)%
2.3250%	17.3%	15.9%	14.6%	11.9%	4.9%	3.2%	1.0%	(22.2)%
4.2125%	0.8%	(0.6)%	(2.0)%	(4.9)%	(12.6)%	(14.4)%	(16.8)%	(42.6)%
6.1000% and above	**	**	**	**	**	**	**	**

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

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

				1 .				
LIBOR	200%	225%	250%	300%	430%	460%	500%	900%
1.0000%	28.8%	27.5%	26.2%	23.7%	16.9%	15.4%	13.3%	(8.6)%
2.3250%	17.3%	15.9%	14.6%	11.9%	4.9%	3.2%	1.0%	(22.2)%
4.2125%	0.8%	(0.6)%	(2.0)%	(4.9)%	(12.6)%	(14.4)%	(16.8)%	(42.6)%
6.1000% and above	**	**	**	**	**	**	3/13/1	**

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

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

LIBOR	200%	225%	250%	300%	430%	460%	500%	900%
1.0000%	28.8%	27.5%	26.2%	23.7%	16.9%	15.4%	13.3%	(8.6)%
2.3250%	17.3%	15.9%	14.6%	11.9%	4.9%	3.2%	1.0%	(22.2)%
4.2125%	0.8%	(0.6)%	(2.0)%	(4.9)%	(12.6)%	(14.4)%	(16.8)%	(42.6)%
6.1000% and above	**	**	**	**	**	**	**	**

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

			1 37	t i repayine	ni assumpu	on Raics		
LIBOR	200%	225%	250%	300%	430%	460%	500%	900%
1.0000%	28.8%	27.5%	26.2%	23.7%	16.9%	15.4%	13.3%	(8.6)%
2.3250%	17.3%	15.9%	14.6%	11.9%	4.9%	3.2%	1.0%	(22.2)%
4.2125%	0.8%	(0.6)%	(2.0)%	(4.9)%	(12.6)%	(14.4)%	(16.8)%	(42.6)%
6.1000% and above	非非	**	**	**	**	**	**	**

<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 IP to Prepayments Assumed Price 12.0%\*

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

150%	190%	225%	400%	716%
23.1%	23.1%	23.1%	15.5%	0.1%

### Sensitivity of Class PI to Prepayments Assumed Price 11.0%\*

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

150%	190%	225%	400%	667%
21.1%	21.1%	21.1%	13.5%	0.0%

<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 Cadwalader, Wickersham & Taft 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.

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 237% PSA in the case of the Group 1 and 8 Securities, 470% PSA in the case of the Group 2 Securities, 230% PSA in the case of the Group 3 Securities, 300% PSA in the case of the Group 4, 5, 6 and 7 Securities, 200% PSA in the case of the Group 9 Securities, 430% PSA in the case of the Group 10 Securities, 250% PSA in the case of the Group 11 Securities and 190% PSA in the case of

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

the Group 12 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 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. 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.

In the case of any Trust REMIC that is considered to be a "single-class REMIC" under temporary Treasury regulations, certain fees and expenses of the single-class REMIC would be allocated proportionately among the Regular Securities and Residual Securities of such Trust REMIC. An individual, trust or estate that holds Regular Securities in a single-class REMIC (directly or indirectly through a grantor trust, a partnership, an S corporation, a common trust fund, or a nonpublicly offered RIC) generally will not be eligible to deduct its allocable share of fees or expenses of a single-class REMIC under Section 212 of the Code for any taxable year beginning before January 1, 2026. For a discussion of single-class REMICs, see "Certain United States Federal Income Tax Consequences — Tax Treatment of Regular Securities — Single Class REMICs" in the Base Offering Circular, as modified by the previous sentence. Prospective investors in the Regular Securities are urged to consult with their tax advisors regarding the potential applicability of these rules to their particular situation.

### **Residual Securities**

The Class 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 nonpublicly 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 before January 1, 2026. Prospective investors in Residual Securities are urged to consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

#### **MX Securities**

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

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

#### **Foreign Account Tax Compliance Act**

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

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

#### **ERISA MATTERS**

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

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

Fiduciaries of any such plans should consult with their counsel before purchasing any of the Securities. In addition, because the Sponsor or the Co-Sponsor or any of their respective affiliates may receive certain benefits in connection with the sale or holding of the Regular or MX Securities, the purchase of the Regular or MX Securities using Plan assets over which any of these parties or their affiliates has discretionary authority or control, or renders "investment advice" (within the meaning of a Department of Labor regulation) for a fee with respect to the assets of a Plan, or is the employer or other sponsor of the Plan, might be deemed to be a violation of a provision of Title I of ERISA or Section 4975 of the Code. Accordingly, the Regular or MX Securities may not be purchased using the assets of any Plan if the Sponsor or the Co-Sponsor or any of their respective affiliates has discretionary authority or control or renders investment advice for a fee with respect to the assets of the Plan, or is the employer or other sponsor of the Plan, unless an applicable prohibited transaction exemption is available to cover the purchase or holding of the Regular or MX Securities or the transaction is not otherwise prohibited.

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

See "ERISA Considerations" in the Base Offering Circular.

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

#### LEGAL INVESTMENT CONSIDERATIONS

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

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

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

#### PLAN OF DISTRIBUTION

Subject to the terms and conditions of the Sponsor Agreement, the Sponsor has agreed to purchase all of the Securities if any are sold and purchased. The Sponsor proposes to offer the Regular and MX Classes to the public from time to time for sale in negotiated transactions at varying prices to be determined at the time of sale, plus accrued interest from (1) July 1, 2019 on the Fixed Rate Classes and (2) July 20, 2019 on the Floating Rate and Inverse Floating Rate 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 Cadwalader, Wickersham & Taft LLP and Marcell Solomon & Associates PC, Bowie, Maryland, and for the Trustee by Aini & Associates PLLC.



Available Combinations(1)

REMIC Securities	90				MX Securities			
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP	Final Distribution Date(4)
Security Group 1 Combination 1(5)								
A	\$ 25,991,640	AB	\$ 58,481,190	SEQ	2.00%	FIX	38381XMJ2	December 2048
AF	32,489,550	AC	58,481,190	SEQ	2.25	FIX	38381XMK9	December 2048
AS	32,489,550	AD	58,481,190	SEQ	2.50	FIX	38381XML7	December 2048
		AE	58,481,190	SEQ	2.75	FIX	38381XIMIM5	December 2048
		AG	58,481,190	SEQ	3.00	FIX	38381XMN3	December 2048
		AH	58,481,190	SEQ	3.25	FIX	38381XMP8	December 2048
		AI	32,489,550	NTL(SEQ)	4.50	FIX/IO	38381XMQ6	December 2048
		ĄĴ	58,481,190	SEQ	3.50	FIX	38381XMR4	December 2048
		AK	58,481,190	SEQ	3.75	FIX	38381XMS2	December 2048
		AL	58,481,190	SEQ	4.00	FIX	38381XMT0	December 2048
		AM	58,481,190	SEQ	4.50	FIX	38381XMU7	December 2048
		AN	48,734,325	SEQ	5.00	FIX	38381XMV5	December 2048
		AP	41,772,278	SEQ	5.50	FIX	38381XMW3	December 2048
		AQ	36,550,743	SEQ	00.9	FIX	38381XMX1	December 2048
		AT	32,489,550	SEQ	6.50	FIX	38381XMY9	December 2048

REMIC Securities				Ĭ.	MX Securities			
Jose	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)	1ype(3)	Kate	1ype(3)	Number	Date(4)
Combination 2(5)							,	,
В	\$ 1,165,284	BA	\$ 2,621,887	SEQ	2.00%	FIX	38381XMZ6	July 2049
BF	1,456,603	BC	2,621,887	SEQ	2.25	FIX	38381XNA0	July 2049
BS	1,456,603	BD	2,621,887	SEQ	2.50	FIX	38381XNB8	July 2049
		BE	2,621,887	SEQ	2.75	FIX	38381XNC6	July 2049
		BG	2,621,887	SEQ	3.00	FIX	38381XND4	July 2049
		BH	2,621,887	SEQ	3.25	FIX	38381XNE2	July 2049
		BI	1,456,603	NTL(SEQ)	4.50	FIX/IO	38381XNF9	July 2049
		BJ	2,621,887	SEQ	3.50	FIX	38381XNG7	July 2049
		BK	2,621,887	SEQ	3.75	FIX	38381XNH5	July 2049
		BL	2,621,887	SEQ	4.00	FIX	38381XNJ1	July 2049
		$_{ m BM}$	2,621,887	SEQ	4.50	FIX	38381XNK8	July 2049
		BN	2,184,905	SEQ	5.00	FIX	38381XINL6	July 2049
		BP	1,872,776	SEQ	5.50	FIX	38381XNM4	July 2049
		BQ	1,638,679	SEQ	00.9	FIX	38381XINN2	July 2049
		BT	1,456,603	SEQ	6.50	FIX	38381XNP7	July 2049
Combination 3(5)								
A	\$ 25,991,640	CA	\$ 61,103,077	PT	2.00%	FIX	38381XNQ5	
AF	32,489,550	CB	61,103,077	PT	2.25	FIX	38381XNR3	
AS	32,489,550	C	61,103,077	PT	2.50	FIX	38381XNS1	July 2049
В	1,165,284	CE	61,103,077	PT	2.75	FIX	38381XNT9	July 2049
BF	1,456,603	S	61,103,077	PT	3.00	FIX	38381XINU6	July 2049
BS	1,456,603	CH	61,103,077	PT	3.25	FIX	38381XNV4	July 2049
		CI	33,946,153	NTL(PT)	4.50	FIX/IO	38381XNW2	July 2049
		Ď	61,103,077	PT	3.50	FIX	38381XNX0	July 2049
		CK	61,103,077	PT	3.75	FIX	38381XNY8	July 2049
		CL	61,103,077	PT	4.00	FIX	38381XNZ5	July 2049
		$_{ m CM}$	61,103,077	PT	4.50	FIX	38381XPA8	July 2049
		CN	50,919,230	PT	5.00	FIX	38381XPB6	July 2049
		CP	43,645,055	PT	5.50	FIX	38381XPC4	July 2049
		Ò	38,189,423	PT	00.9	FIX	38381XPD2	July 2049
		CI	33,946,153	PT	6.50	FIX	38381XPE0	July 2049

REMIC Securities				M	MX Securities			
	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)
Combination 4								
AF	\$ 32,489,550	FA	\$ 33,946,153	PT	9	FLT	38381XPF7	July 2049
BF	1,456,603							
Combination 5								
AS	\$ 32,489,550	SA	\$ 33,946,153	NTL(PT)	9	OI/ANI	38381XPG5	July 2049
BS	1,456,603							•
Security Group 3								
Combination 6								
KB	\$ 6,358,487	KG	\$ 11,040,618	SC/PT	3.00%	FIX	38381XPH3	June 2043
KC	4,682,131							
Security Group 5								
Combination 7(5)								
MP	\$ 40,000,000	IM	\$ 12,500,000	NTL(PAC/AD)	4.00%	FIX/IO	38381XPJ9	June 2049
		MB	40,000,000	PAC/AD	2.25	FIX	38381XPK6	June 2049
		MC	40,000,000	PAC/AD	2.50	FIX	38381XPL4	June 2049
		MD	40,000,000	PAC/AD	2.75	FIX	38381XPM2	June 2049
		ME	40,000,000	PAC/AD	3.00	FIX	38381XPN0	June 2049
		MG	40,000,000	PAC/AD	3.25	FIX	38381XPP5	June 2049
Security Group 6								
Combination 8								
FJ	\$ 80,000,000	FN	\$100,000,000	PT	9	FLT	38381XPQ3	July 2049
JF	20,000,000							
Combination 9								
FJ	\$ 80,000,000	NF	\$100,000,000	PT	9	FLT	38381XPR1	July 2049
IJ	80,000,000							
JF	20,000,000							
Л	20,000,000							
Combination 10								
IJ	\$ 80,000,000	N	\$ 2,222,222	NTL(PT)	4.50%	FIX/IO	38381XPS9	July 2049
Л	20,000,000							

REMIC Securities				M	MX Securities			
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP	Final Distribution Date(4)
Security Group 7 Combination 11								
GS	\$100,000,000	rs	\$130,000,000	NTL(PT)	9	OI/ANI	38381XPT7	July 2049
SG	30,000,000							
Security Group 8								
Combination 12(5)								
D	\$ 90,513,913	DA	\$116,375,030	SC/SEQ	2.00%	FIX	38381XPU4	February 2048
DF	25,861,117	DB	116,375,030	SC/SEQ	2.25	FIX	38381XPV2	February 2048
DS	25,861,117	DC	116,375,030	SC/SEQ	2.50	FIX	38381XPW0	February 2048
		DE	116,375,030	SC/SEQ	2.75	FIX	38381XPX8	February 2048
		DC	116,375,030	SC/SEQ	3.00	FIX	38381XPY6	February 2048
		DH	93,100,024	SC/SEQ	3.25	FIX	38381XPZ3	February 2048
		DI	25,861,117	NTL(SC/SEQ)	4.50	FIX/IO	38381XQA7	February 2048
		DĴ	77,583,353	SC/SEQ	3.50	FIX	38381XQB5	February 2048
		DK	66,500,017	SC/SEQ	3.75	FIX	38381XQC3	February 2048
		DI	58,187,515	SC/SEQ	4.00	FIX	38381XQD1	February 2048
		DM	46,550,012	SC/SEQ	4.50	FIX	38381XQE9	February 2048
		DN	38,791,676	SC/SEQ	5.00	FIX	38381XQF6	February 2048
		DP	33,250,008	SC/SEQ	5.50	FIX	38381XQG4	February 2048
		DÓ	29,093,757	SC/SEQ	00.9	FIX	38381XQH2	February 2048
		DI	25,861,117	SC/SEQ	6.50	FIX	38381XQJ8	February 2048

REMIC Securities				N	MX Securities	•		
Chee	Original Class Principal Balance or Class Notional Ralance	Related MY Class	Maximum Original Class Principal Balance or Class Notional Ralance(2)	Principal	Interest	Interest Tyne(3)	CUSIP	Final Distribution
Combination 13(5)	Dalaire	NA CHAS	Datamer(2)	type(3)	l war	(C) which	TAMINOT	Danc(T)
E	\$ 5,657,698	EA	\$ 7,274,183	SC/SEQ	2.00%	FIX	38381XQK5	February 2048
EF	1,616,485	EB		SC/SEQ	2.25	FIX	38381XQL3	February 2048
ES	1,616,485	EC	7,274,183	SC/SEQ	2.50	FIX	38381XQM1	February 2048
		ED	7,274,183	SC/SEQ	2.75	FIX	38381XQN9	February 2048
		EG	7,274,183	SC/SEQ	3.00	FIX	38381XQP4	February 2048
		EH	5,819,346	SC/SEQ	3.25	FIX	38381XQQ2	February 2048
		EI	1,616,485	NTL(SC/SEQ)	4.50	FIX/IO	38381XQR0	February 2048
		Ē	4,849,455	SC/SEQ	3.50	FIX	38381XQS8	February 2048
		EK	4,156,676	SC/SEQ	3.75	FIX	38381XQT6	February 2048
		EL	3,637,091	SC/SEQ	4.00	FIX	38381XQU3	February 2048
		EM	2,909,673	SC/SEQ	4.50	FIX	38381XQV1	February 2048
		EN	2,424,727	SC/SEQ	5.00	FIX	38381XQW9	February 2048
		EP	2,078,338	SC/SEQ	5.50	FIX	38381XQX7	February 2048
		EQ	1,818,545	SC/SEQ	00.9	FIX	38381XQY5	February 2048
		ET	1,616,485	SC/SEQ	6.50	FIX	38381XQZ2	February 2048
Combination 14(5)								
D	\$ 90,513,913	GA	\$123,649,213	SC/PT	2.00%	FIX	38381XRA6	February 2048
DF	25,861,117	GB	123,649,213	SC/PT	2.25	FIX	38381XRB4	February 2048
DS	25,861,117	ЭS	123,649,213	SC/PT	2.50	FIX	38381XRC2	February 2048
丑	5,657,698	GD	123,649,213	SC/PT	2.75	FIX	38381XRD0	February 2048
EF	1,616,485	GE	123,649,213	SC/PT	3.00	FIX	38381XRE8	February 2048
ES	1,616,485	GH	98,919,370	SC/PT	3.25	FIX	38381XRF5	February 2048
		GI	27,477,602	NTL(SC/PT)	4.50	FIX/IO	38381XRG3	February 2048
		GJ	82,432,808	SC/PT	3.50	FIX	38381XRH1	February 2048
		GK	70,656,693	SC/PT	3.75	FIX	38381XRJ7	February 2048
		CI	61,824,606	SC/PT	4.00	FIX	38381XRK4	February 2048
		$_{ m GM}$	49,459,685	SC/PT	4.50	FIX	38381XRL2	February 2048
		GN	41,216,404	SC/PT	5.00	FIX	38381XRM0	February 2048
		GP	35,328,346	SC/PT	5.50	FIX	38381XRN8	February 2048
		G G	30,912,303	SC/PT	00.9	FIX	38381XRP3	February 2048
		CL	27,477,602	SC/PT	6.50	FIX	38381XRQ1	February 2048

REMIC Securities	83			M	MX Securities	<b>50</b>		
1	Original Class Principal Balance or Class Notional	Related	Maximum Original Class Principal Balance or Class Notional	Principal	Interest	Interest	disno	Final Distribution
Class	Balance	MX Class	Balance(2)	Type(3)	Rate	Type(3)	Number	Date(4)
Combination 15								
DF	\$ 25,861,117	FB	\$ 27,477,602	SC/PT	9	FLT	38381XRR9	February 2048
EF	1,616,485							
Combination 16								
DS	\$ 25,861,117	SB	\$ 27,477,602	NTL(SC/PT)	9	OI/ANI	38381XRS7	February 2048
ES	1,616,485							
Security Group 10								
Combination 17								
FW	\$ 39,375,000	FC	\$112,939,949	PT	9	FLT	38381XRT5	July 2049
FY	13,967,927							
WF	43,992,000							
YF	15,605,022							
Combination 18								
SY	\$ 13,967,927	$\Omega$ S	\$ 29,572,949	NTL(SUP)	9	INV/IO	38381XRU2	July 2049
YS	15,605,022							
Combination 19								
SW	\$ 39,375,000	SC	\$ 53,342,927	NTL(PT)	9	OI/ANI	38381XRV0	July 2049
SY	13,967,927							
Combination 20								
WS	\$ 43,992,000	SD	\$ 59,597,022	NTL(PT)	9	OI/ANI	38381XRW8	July 2049
YS	15,605,022							
Security Group 11								
Combination 21(5)								
<b>5</b> 0	\$ 24,999,000	ÓD	\$ 24,999,000	PAC/AD	1.50%	FIX	38381XRX6	March 2049
		ÓE	24,999,000	PAC/AD	1.75	FIX	38381XRY4	March 2049
		ÓĞ	24,999,000	PAC/AD	2.00	FIX	38381XRZ1	March 2049
		ÓН	24,999,000	PAC/AD	2.25	FIX	38381XSA5	March 2049
		[]	7,499,700	NTL(PAC/AD)	5.00	FIX/IO	38381XSB3	March 2049
		Ð 8	24,999,000	PAC/AD	2.50 2.75	FIX	38381XSC1	March 2049
		45	74,777,000	LAC/AD	(1:1	VLI	CLCA10CoC	Maicii 2047

REMIC Securities				N	MX Securities			
See Co	Original Class Principal Balance or Class Notional	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Tyme(3)	Interest Rate	Interest Tyne(3)	CUSIP	Final Distribution Date(4)
Class	Dalalice	MA CIASS	Dalaire (2)	17 [20]	Mate	type(3)	- Indiano	Date(T)
Security Groups 10 and 11								
Combination $22(7)$						:		,
NZ	\$ 5,701,300	Z	\$ 17,123,293	SUP	4.00%	FIX/Z	38381XSE7	July 2049
ZA	4,505,600							
ZU	6,916,393							
Combination 23(7)								
FM	\$ 29,837,705	CF	\$ 41,018,105	PT	9	FLT	38381XSF4	July 2049
PF	11,180,400							
Combination 24(7)								
PS	\$ 11,180,400	CS	\$ 41,018,105	NTL(PT)	9	OI//NI	38381XSG2	July 2049
SM	29,837,705							
Combination 25(7)								
FH	\$ 10,280,000	KF	\$ 47,377,221	PT	9	FLT	38381XSH0	July 2049
FL	13,489,858							
FP	18,047,363							
HF	5,560,000							
Combination $26(7)$								
SH	\$ 10,280,000	KS	\$ 23,769,858	NTL(PT)	9)	OI/ANI	38381XSJ6	July 2049
TS	13,489,858							
Combination $27(7)$								
HS	\$ 5,560,000	SQ	\$ 23,607,363	NTL(PT)	9)	OI/ANI	38381XSK3	July 2049
SP	18,047,363							
Combination 28(7)								
PS	\$ 11,180,400	SE	\$ 64,787,963	NTL(PT)	9	OI/ANI	38381XSL1	July 2049
SH	10,280,000							
SE	13,489,858							
SM	29,837,705							

REMIC Securities	ties			X	MX Securities			
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 12 Combination 29(5)								
py	\$ 53,662,000	IP	\$ 15,332,000	NTL(PAC/AD)	3.50%	FIX/IO	38381XSM9	July 2049
		PA	53,662,000	PAC/AD	2.00	FIX	38381XSN7	July 2049
		PB	53,662,000	PAC/AD	2.25	FIX	38381XSP2	July 2049
		PC	53,662,000	PAC/AD	2.50	FIX	38381XSQ0	July 2049
		PD	53,662,000	PAC/AD	2.75	FIX	38381XSR8	July 2049
		PE	53,662,000	PAC/AD	3.00	FIX	38381XSS6	July 2049
		PG	42,929,600	PAC/AD	3.25	FIX	38381XST4	July 2049
		PH	35,774,666	PAC/AD	3.50	FIX	38381XSU1	July 2049
Combination 30								
HP	\$ 13,416,000	Ь	\$ 67,078,000	PAC/AD	3.00%	FIX	38381XSV9	July 2049
PY	53,662,000							

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

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

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

See "Yield, Maturity and Prepayment Considerations — Final Distribution Date" in this Supplement. (4)

In the case of Combinations 1, 2, 3, 7, 12, 13, 14, 21 and 29 various subcombinations are permitted. See "Description of the Securities — Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations.

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

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

### Schedule II

### SCHEDULED PRINCIPAL BALANCES

Distribution Date	Classes MP and MY (in the aggregate)	Class FW	Class QA	Class QB
Initial Balance	\$40,385,085.00	\$39,375,000.00	\$69,592,000.00	\$85,146,000.00
August 2019	40,216,635.62	39,239,079.67	69,291,331.96	84,835,423.15
September 2019	40,026,476.01	39,082,867.69	68,939,527.88	84,462,360.53
October 2019	39,814,691.23	38,906,449.25	68,536,844.06	84,027,011.22
November 2019	39,581,393.87	38,709,932.97	68,083,641.51	83,529,701.26
December 2019	39,326,724.09	38,493,450.82	67,580,386.20	82,970,884.30
January 2020	39,050,849.53	38,257,158.05	67,027,648.90	82,351,141.80
February 2020	38,753,965.21	38,001,233.13	66,426,104.68	81,671,182.80
March 2020	38,436,293.31	37,725,877.52	65,776,532.05	80,931,843.27
April 2020	38,098,082.98	37,431,315.49	65,079,811.78	80,134,085.02
May 2020	37,739,610.00	37,117,793.88	64,336,925.29	79,278,994.18
June 2020	37,361,176.45	36,785,581.80	63,548,952.73	78,367,779.24
July 2020	36,963,110.29	36,434,970.25	62,717,070.67	77,401,768.64
August 2020	36,545,764.87	36,066,271.80	61,842,549.49	76,382,407.92
September 2020	36,109,518.45	35,679,820.12	60,926,750.31	75,311,256.44
October 2020	35,654,773.53	35,275,969.50	59,971,121.72	74,189,983.73
November 2020	35,181,956.30	34,855,094.38	58,977,196.06	73,020,365.29
December 2020	34,691,515.89	34,417,588.74	57,946,585.46	71,804,278.17
January 2021	34,183,923.65	33,963,865.57	56,880,977.49	70,543,696.01
February 2021	33,659,672.31	33,494,356.18	55,782,130.61	69,240,683.77
March 2021	33,119,275.21	33,009,509.55	54,651,869.24	67,897,392.07
April 2021	32,563,265.33	32,509,791.64	53,492,078.68	66,516,051.29
May 2021	31,992,194.38	31,995,684.63	52,304,699.68	65,098,965.20
June 2021	31,406,631.86	31,467,686.13	51,091,722.86	63,648,504.41
July 2021	30,807,163.95	30,926,308.42	49,855,182.92	62,167,099.55
August 2021	30,194,392.53	30,372,077.58	48,597,152.63	60,657,234.17
September 2021	29,568,934.05	29,805,532.61	47,319,736.73	59,121,437.39
October 2021	28,931,418.39	29,227,224.60	46,025,065.69	57,562,276.53
November 2021	28,282,487.74	28,656,238.64	44,760,259.60	55,982,349.38
December 2021	27,642,225.78	28,092,484.10	43,524,621.30	54,438,976.08
January 2022	27,010,507.86	27,535,871.45	42,317,469.77	52,931,301.09
February 2022	26,387,211.04	26,986,312.24	41,138,139.71	51,458,488.67
March 2022	25,772,214.07	26,443,719.14	39,985,981.22	50,019,722.47
April 2022	25,165,397.39	25,908,005.84	38,860,359.39	48,614,205.05
May 2022	24,566,643.11	25,379,087.13	37,760,654.05	47,241,157.46
June 2022	23,975,834.95	24,856,878.81	36,686,259.32	45,899,818.79
July 2022	23,392,858.27	24,341,297.71	35,636,583.37	44,589,445.79
August 2022	22,817,599.97	23,832,261.71	34,611,048.04	43,309,312.44
September 2022	22,249,948.58	23,329,689.67	33,609,088.56	42,058,709.55
October 2022	21,689,794.12	22,833,501.43	32,630,153.22	40,836,944.37
November 2022	21,137,028.17	22,343,617.84	31,673,703.07	39,643,340.23
December 2022	20,591,543.80	21,859,960.69	30,739,211.65	38,477,236.16
January 2023	20,053,235.55	21,382,452.77	29,826,164.67	37,337,986.51
February 2023	19,521,999.44	20,911,017.75	28,934,059.76	36,224,960.63

Distribution Date	Classes MP and MY (in the aggregate)	Class FW	Class QA	Class QB
March 2023	\$18,997,732.93	\$20,445,580.30	\$28,062,406.17	\$35,137,542.50
April 2023	18,480,334.89	19,986,065.98	27,210,724.52	34,075,130.37
May 2023	17,969,705.60	19,532,401.25	26,378,546.52	33,037,136.50
June 2023	17,465,746.72	19,084,513.50	25,570,867.12	32,023,266.86
July 2023	16,968,361.27	18,642,330.98	24,787,702.81	31,040,238.29
August 2023	16,477,453.62	18,205,782.84	24,028,314.53	30,087,119.08
September 2023	15,992,929.47	17,774,799.09	23,291,985.38	29,163,005.54
October 2023	15,514,695.83	17,349,310.60	22,578,019.98	28,267,021.12
November 2023	15,042,660.97	16,929,249.09	21,885,743.79	27,398,315.60
December 2023	14,576,734.47	16,514,547.09	21,214,502.49	26,556,064.34
January 2024	14,124,941.57	16,105,138.00	20,563,661.43	25,739,467.46
February 2024	13,687,018.45	15,700,956.00	19,932,604.97	24,947,749.17
March 2024	13,262,542.55	15,301,936.09	19,320,735.96	24,180,156.96
April 2024	12,851,104.09	14,908,014.08	18,727,475.17	23,435,960.97
May 2024	12,452,305.72	14,519,126.54	18,152,260.76	22,714,453.31
June 2024	12,065,762.10	14,135,210.84	17,594,547.74	22,014,947.36
July 2024	11,691,099.58	13,756,205.10	17,053,807.52	21,336,777.17
August 2024	11,327,955.83	13,382,048.21	16,529,527.34	20,679,296.82
September 2024	10,975,979.49	13,012,679.82	16,021,209.88	20,041,879.84
October 2024	10,634,829.87	12,648,040.28	15,528,372.74	19,423,918.61
November 2024	10,304,176.59	12,293,321.12	15,050,548.01	18,824,823.80
December 2024	9,983,699.29	11,948,431.41	14,587,281.84	18,244,023.83
January 2025	9,673,087.32	11,613,101.22	14,138,134.04	17,680,964.33
February 2025	9,372,039.46	11,287,067.96	13,702,677.62	17,135,107.61
March 2025	9,080,263.63	10,970,076.22	13,280,498.45	16,605,932.21
April 2025	8,797,476.61	10,661,877.56	12,871,194.84	16,092,932.35
May 2025	8,523,403.76	10,362,230.30	12,474,377.18	15,595,617.50
June 2025	8,257,778.79	10,070,899.38	12,089,667.57	15,113,511.91
July 2025	8,000,343.49	9,787,656.14	11,716,699.49	14,646,154.18
August 2025	7,750,847.48	9,512,278.16	11,355,117.44	14,193,096.81
September 2025	7,509,048.00	9,244,549.10	11,004,576.62	13,753,905.79
October 2025	7,274,709.64	8,984,258.53	10,664,742.60	13,328,160.19
November 2025	7,047,604.16	8,731,201.77	10,335,291.02	12,915,451.81
December 2025	6,827,510.25	8,485,179.71	10,015,907.28	12,515,384.72
January 2026	6,614,213.33	8,245,998.70	9,706,286.25	12,127,574.96
February 2026	6,407,505.31	8,013,470.37	9,406,132.00	11,751,650.15
March 2026	6,207,184.47	7,787,411.52	9,115,157.50	11,387,249.14
April 2026	6,013,055.18	7,567,643.93	8,833,084.37	11,034,021.70
May 2026	5,824,927.81	7,353,994.26	8,559,642.61	10,691,628.15
June 2026	5,642,618.44	7,146,293.92	8,294,570.37	10,359,739.08
July 2026	5,465,948.78	6,944,378.92	8,037,613.68	10,038,035.03
August 2026	5,294,745.96	6,748,089.75	7,788,526.23	9,726,206.18
September 2026	5,128,842.36	6,557,271.29	7,547,069.12	9,423,952.08
October 2026	4,968,075.48	6,371,772.63	7,313,010.67	9,130,981.35
November 2026	4,812,287.74	6,191,447.01	7,086,126.19	8,847,011.41
December 2026	4,661,326.37	6,016,151.69	6,866,197.76	8,571,768.24
January 2027	4,515,043.28	5,845,747.83	6,653,014.02	8,304,986.08
February 2027	4,373,294.84	5,680,100.38	6,446,370.00	8,046,407.23

Distribution Date	Classes MP and MY (in the aggregate)	Class FW	Class QA	Class QB
March 2027	\$ 4,235,941.83	\$ 5,519,078.00	\$ 6,246,066.93	\$ 7,795,781.75
April 2027	4,102,849.26	5,362,552.96	6,051,912.01	7,552,867.30
May 2027	3,973,886.26	5,210,401.01	5,863,718.27	7,317,428.85
June 2027	3,848,925.95	5,062,501.31	5,681,304.40	7,089,238.47
July 2027	3,727,845.30	4,918,736.33	5,504,494.54	6,868,075.14
August 2027	3,610,525.06	4,778,991.76	5,333,118.17	6,653,724.55
September 2027	3,496,849.60	4,643,156.43	5,167,009.89	6,445,978.83
October 2027	3,386,706.81	4,511,122.22	5,006,009.33	6,244,636.45
November 2027	3,279,988.02	4,382,783.97	4,849,960.94	6,049,501.97
December 2027	3,176,587.87	4,258,039.39	4,698,713.88	5,860,385.85
January 2028	3,076,404.21	4,136,789.03	4,552,121.87	5,677,104.31
February 2028	2,979,338.01	4,018,936.13	4,410,043.06	5,499,479.14
March 2028	2,885,293.27	3,904,386.62	4,272,339.88	5,327,337.53
April 2028	2,794,176.92	3,793,048.98	4,138,878.92	5,160,511.90
May 2028	2,705,898.73	3,684,834.24	4,009,530.81	4,998,839.76
June 2028	2,620,371.22	3,579,655.84	3,884,170.10	4,842,163.55
July 2028	2,537,509.60	3,477,429.61	3,762,675.13	4,690,330.47
August 2028	2,457,231.66	3,378,073.69	3,644,927.92	4,543,192.38
September 2028	2,379,457.72	3,281,508.48	3,530,814.07	4,400,605.61
October 2028	2,304,110.51	3,187,656.55	3,420,222.64	4,262,430.88
November 2028	2,231,115.14	3,096,442.61	3,313,046.04	4,128,533.11
December 2028	2,160,399.02	3,007,793.44	3,209,179.96	3,998,781.34
January 2029	2,091,891.77	2,921,637.83	3,108,523.24	3,873,048.58
February 2029	2,025,525.15	2,837,906.52	3,010,977.78	3,751,211.69
March 2029	1,961,233.03	2,756,532.17	2,916,448.46	3,633,151.28
April 2029	1,898,951.31	2,677,449.29	2,824,843.04	3,518,751.59
May 2029	1,838,617.83	2,600,594.18	2,736,072.09	3,407,900.37
June 2029	1,780,172.36	2,525,904.91	2,650,048.87	3,300,488.79
July 2029	1,723,556.48	2,453,321.24	2,566,689.29	3,196,411.33
August 2029	1,668,713.61	2,382,784.60	2,485,911.80	3,095,565.66
September 2029	1,615,588.86	2,314,238.04	2,407,637.34	2,997,852.58
October 2029	1,564,129.05	2,247,626.15	2,331,789.24	2,903,175.91
November 2029	1,514,282.61	2,182,895.07	2,258,293.14	2,811,442.40
December 2029	1,465,999.58	2,119,992.43	2,187,076.97	2,722,561.61
January 2030	1,419,231.50	2,058,867.28	2,118,070.84	2,636,445.90
February 2030	1,373,931.43	1,999,470.10	2,051,206.97	2,553,010.25
March 2030	1,330,053.84	1,941,752.71	1,986,419.64	2,472,172.26
April 2030	1,287,554.63	1,885,668.29	1,923,645.15	2,393,852.03
May 2030	1,246,391.02	1,831,171.28	1,862,821.72	2,317,972.11
June 2030	1,206,521.58	1,778,217.39	1,803,889.45	2,244,457.38
July 2030	1,167,906.12	1,726,763.57	1,746,790.25	2,173,235.04
August 2030	1,130,505.71	1,676,767.93	1,691,467.83	2,104,234.49
September 2030	1,094,282.61	1,628,189.75	1,637,867.58	2,037,387.30
October 2030	1,059,200.23	1,580,989.45	1,585,936.58	1,972,627.11
November 2030	1,025,223.12	1,535,128.51	1,535,623.48	1,909,889.60
December 2030	992,316.91	1,490,569.50	1,486,878.54	1,849,112.40
January 2031	960,448.30	1,447,276.01	1,439,653.51	1,790,235.06
February 2031	929,585.00	1,405,212.66	1,393,901.61	1,733,198.96

Distribution Date	sses MP and MY the aggregate)	Class FW	Class QA	Class QB
March 2031	\$ 899,695.72	\$ 1,364,345.02	\$ 1,349,577.50	\$ 1,677,947.29
April 2031	870,750.14	1,324,639.64	1,306,637.19	1,624,424.94
May 2031	842,718.87	1,286,063.96	1,265,038.08	1,572,578.53
June 2031	815,573.42	1,248,586.35	1,224,738.83	1,522,356.28
July 2031	789,286.19	1,212,176.05	1,185,699.37	1,473,707.99
August 2031	763,830.42	1,176,803.15	1,147,880.86	1,426,585.03
September 2031	739,180.19	1,142,438.56	1,111,245.63	1,380,940.22
October 2031	715,310.35	1,109,054.01	1,075,757.19	1,336,727.84
November 2031	692,196.56	1,076,622.00	1,041,380.13	1,293,903.57
December 2031	669,815.21	1,045,115.81	1,008,080.14	1,252,424.44
January 2032	648,143.43	1,014,509.44	975,823.95	1,212,248.81
February 2032	627,159.05	984,777.62	944,579.31	1,173,336.29
March 2032	606,840.58	955,895.79	914,314.97	1,135,647.76
April 2032	587,167.22	927,840.05	885,000.61	1,099,145.27
May 2032	568,118.77	900,587.19	856,606.85	1,063,792.05
June 2032	549,675.69	874,114.63	829,105.20	1,029,552.46
July 2032	531,819.03	848,400.40	802,468.07	996,391.92
August 2032	514,530.43	823,423.18	776,668.67	964,276.97
September 2032	497,792.10	799,162.21	751,681.07	933,175.12
October 2032	481,586.80	775,597.31	727,480.11	903,054.90
November 2032	465,897.81	752,708.88	704,041.41	873,885.83
December 2032	450,708.94	730,477.85	681,341.33	845,638.31
January 2033	436,004.51	708,885.69	659,356.97	818,283.71
February 2033	421,769.31	687,914.36	638,066.11	791,794.24
March 2033	407,988.61	667,546.36	617,447.23	766,142.98
April 2033	394,648.14	647,764.64	597,479.46	741,303.83
May 2033	381,734.06	628,552.67	578,142.58	717,251.50
June 2033	369,232.97	609,894.33	559,416.97	693,961.47
July 2033	357,131.88	591,773.97	541,283.64	671,409.99
August 2033	345,418.22	574,176.40	523,724.16	649,574.02
September 2033	334,079.77	557,086.82	506,720.67	628,431.24
October 2033	323,104.74	540,490.86	490,255.88	607,960.02
November 2033	312,481.68	524,374.53	474,313.01	588,139.41
December 2033	302,199.49	508,724.27	458,875.79	568,949.06
January 2034	292,247.42	493,526.86	443,928.48	550,369.30
February 2034	282,615.07	478,769.46	429,455.79	532,381.04
March 2034	273,292.35	464,439.61	415,442.92	514,965.77
April 2034	264,269.48	450,525.16	401,875.53	498,105.58
May 2034	255,537.00	437,014.33	388,739.71	481,783.09
June 2034	247,085.73	423,895.67	376,021.97	465,981.46
July 2034	238,906.77	411,158.02	363,709.26	450,684.38
August 2034	230,991.53	398,790.56	351,788.92	435,876.04
September 2034	223,331.65	386,782.77	340,248.68	421,541.11
October 2034	215,919.05	375,124.41	329,076.64	407,664.74
November 2034	208,745.91	363,805.54	318,261.28	394,232.54
December 2034	201,804.63	352,816.49	307,791.43	381,230.57
January 2035	195,087.87	342,147.88	297,656.28	368,645.32
February 2035	188,588.50	331,790.56	287,845.32	356,463.68

Distribution Date		sses MP and MY the aggregate)	Class FW	Class QA	Class QB
March 2035	\$	182,299.64	\$ 321,735.66	\$ 278,348.39	\$ 344,672.97
April 2035	·	176,214.59	311,974.56	269,155.65	333,260.90
May 2035		170,326.89	302,498.87	260,257.54	322,215.54
June 2035		164,630.26	293,300.44	251,644.81	311,525.36
July 2035		159,118.63	284,371.35	243,308.50	301,179.17
August 2035		153,786.12	275,703.90	235,239.91	291,166.11
September 2035		148,627.02	267,290.61	227,430.64	281,475.70
October 2035		143,635.83	259,124.22	219,872.52	272,097.75
November 2035		138,807.18	251,197.64	212,557.65	263,022.41
December 2035		134,135.89	243,504.02	205,478.36	254,240.11
January 2036		129,616.96	236,036.68	198,627.23	245,741.59
February 2036		125,245.52	228,789.14	191,997.07	237,517.90
March 2036		121,016.85	221,755.08	185,580.91	229,560.33
April 2036		116,926.41	214,928.38	179,372.00	221,860.46
May 2036		112,969.78	208,303.09	173,363.79	214,410.15
June 2036		109,142.67	201,873.42	167,549.94	207,201.47
July 2036		105,440.94	195,633.75	161,924.31	200,226.78
August 2036		101,860.58	189,578.61	156,480.95	193,478.66
September 2036		98,397.71	183,702.70	151,214.08	186,949.91
October 2036		95,048.55	178,000.84	146,118.13	180,633.58
November 2036		91,809.47	172,468.04	141,187.67	174,522.91
December 2036		88,676.93	167,099.41	136,417.47	168,611.37
January 2037		85,647.51	161,890.23	131,802.43	162,892.62
February 2037		82,717.90	156,835.88	127,337.64	157,360.55
March 2037		79,884.89	151,931.90	123,018.33	152,009.19
April 2037		77,145.38	147,173.94	118,839.87	146,832.80
May 2037		74,496.35	142,557.79	114,797.78	141,825.79
June 2037		71,934.90	138,079.34	110,887.74	136,982.78
July 2037		69,458.21	133,734.60	107,105.53	132,298.52
August 2037		67,063.54	129,519.70	103,447.09	127,767.94
September 2037		64,748.24	125,430.89	99,908.48	123,386.14
October 2037		62,509.76	121,464.50	96,485.86	119,148.36
November 2037		60,345.61	117,616.97	93,175.55	115,049.99
December 2037		58,253.39	113,884.87	89,973.96	111,086.57
January 2038		56,230.78	110,264.84	86,877.61	107,253.77
February 2038		54,275.52	106,753.61	83,883.14	103,547.42
March 2038		52,385.44	103,348.03	80,987.29	99,963.46
April 2038		50,558.42	100,045.02	78,186.91	96,497.95
May 2038		48,792.41	96,841.59	75,478.94	93,147.10
June 2038		47,085.44	93,734.83	72,860.41	89,907.22
July 2038		45,435.60	90,721.93	70,328.46	86,774.74
August 2038		43,841.01	87,800.15	67,880.32	83,746.21
September 2038		42,299.90	84,966.83	65,513.28	80,818.28
October 2038		40,810.51	82,219.38	63,224.75	77,987.71
November 2038		39,371.17	79,555.29	61,012.19	75,251.36
December 2038		37,980.24	76,972.12	58,873.17	72,606.19
January 2039		36,636.15	74,467.50	56,805.31	70,049.25
February 2039		35,337.37	72,039.13	54,806.33	67,577.69
1001daily 2007		55,557.57	, =, 00, 110	2,000.33	-,,-,,-,

Distribution Date	sses MP and MY the aggregate)	 Class FW	Class QA	 Class QB
March 2039	\$ 34,082.41	\$ 69,684.76	\$ 52,874.00	\$ 65,188.76
April 2039	32,869.85	67,402.24	51,006.16	62,879.78
May 2039	31,698.31	65,189.44	49,200.75	60,648.16
June 2039	30,566.42	63,044.32	47,455.73	58,491.40
July 2039	29,472.91	60,964.88	45,769.16	56,407.06
August 2039	28,416.51	58,949.20	44,139.15	54,392.79
September 2039	27,396.00	56,995.39	42,563.86	52,446.32
October 2039	26,410.21	55,101.63	41,041.51	50,565.45
November 2039	25,457.99	53,266.15	39,570.40	48,748.04
December 2039	24,538.25	51,487.22	38,148.85	46,992.02
January 2040	23,649.90	49,763.18	36,775.26	45,295.40
February 2040	22,791.93	48,092.40	35,448.06	43,656.24
March 2040	21,963.32	46,473.29	34,165.75	42,072.65
April 2040	21,163.11	44,904.34	32,926.86	40,542.84
May 2040	20,390.36	43,384.06	31,729.98	39,065.03
June 2040	19,644.17	41,910.99	30,573.74	37,637.52
July 2040	18,923.65	40,483.74	29,456.80	36,258.68
August 2040	18,227.95	39,100.94	28,377.89	34,926.90
September 2040	17,556.26	37,761.27	27,335.76	33,640.64
October 2040	16,907.77	36,463.45	26,329.20	32,398.41
November 2040	16,281.72	35,206.23	25,357.06	31,198.75
December 2040	15,677.37	33,988.39	24,418.19	30,040.27
January 2041	15,093.98	32,808.76	23,511.51	28,921.62
February 2041	14,530.86	31,666.20	22,635.96	27,841.47
March 2041	13,987.34	30,559.60	21,790.52	26,798.57
April 2041	13,462.76	29,487.88	20,974.18	25,791.67
May 2041	12,956.49	28,450.00	20,186.01	24,819.59
June 2041	12,467.92	27,444.94	19,425.06	23,881.18
July 2041	11,996.46	26,471.71	18,690.43	22,975.32
August 2041	11,541.53	25,529.35	17,981.26	22,100.94
September 2041	11,102.58	24,616.95	17,296.70	21,256.98
October 2041	10,679.07	23,733.58	16,635.94	20,442.45
November 2041	10,270.49	22,878.39	15,998.19	19,656.35
December 2041	9,876.33	22,050.52	15,382.69	18,897.75
January 2042	9,496.11	21,249.13	14,788.68	18,165.72
February 2042	9,129.36	20,473.44	14,215.47	17,459.39
March 2042	8,775.62	19,722.66	13,662.36	16,777.89
April 2042	8,434.45	18,996.04	13,128.67	16,120.39
May 2042	8,105.44	18,292.85	12,613.76	15,486.10
June 2042	7,788.16	17,612.36	12,117.01	14,874.22
July 2042	7,482.23	16,953.90	11,637.79	14,284.02
August 2042	7,482.25	16,316.78	11,037.79	13,714.76
	6,902.85	15,700.37	10,729.67	13,165.74
September 2042			· · · · · · · · · · · · · · · · · · ·	12,636.28
October 2042	6,628.67	15,104.02	10,299.64 9,884.91	12,030.28
	6,364.38	14,527.13	9,884.91	11,633.41
December 2042	6,109.62	13,969.10		11,055.41
January 2043	5,864.08 5,627.43	13,429.34	9,099.33	10,701.14
February 2043	5,627.43	12,907.31	8,727.49	10,/01.14

Distribution Date	Classes MP and MY (in the aggregate)	Class FW	 Class QA	Class QB
March 2043	\$ 5,399.38	\$ 12,402.45	\$ 8,369.00	\$ 10,260.00
April 2043	5,179.63	11,914.24	8,023.40	9,834.77
May 2043	4,967.90	11,442.17	7,690.26	9,424.91
June 2043	4,763.90	10,985.73	7,369.15	9,029.91
July 2043	4,567.38	10,544.45	7,059.66	8,649.24
August 2043	4,378.08	10,117.85	6,761.40	8,282.43
September 2043	4,195.74	9,705.49	6,473.99	7,929.00
October 2043	4,020.13	9,306.91	6,197.05	7,588.50
November 2043	3,851.02	8,921.70	5,930.24	7,260.48
December 2043	3,688.18	8,549.44	5,673.19	6,944.51
January 2044	3,531.38	8,189.72	5,425.59	6,640.19
February 2044	3,380.44	7,842.15	5,187.10	6,347.10
March 2044	3,235.13	7,506.36	4,957.41	6,064.87
April 2044	3,095.26	7,181.97	4,736.22	5,793.12
May 2044	2,960.64	6,868.64	4,523.24	5,531.49
June 2044	2,831.10	6,566.00	4,318.18	5,279.62
July 2044	2,706.45	6,273.73	4,120.76	5,037.18
August 2044	2,586.51	5,991.51	3,930.74	4,803.85
September 2044	2,471.14	5,719.00	3,747.84	4,579.30
October 2044	2,360.15	5,455.92	3,571.82	4,363.24
November 2044	2,253.41	5,201.95	3,402.45	4,155.35
December 2044	2,150.76	4,956.82	3,239.48	3,955.37
January 2045	2,052.05	4,720.24	3,082.70	3,763.01
February 2045	1,957.15	4,491.94	2,931.89	3,578.01
March 2045	1,865.92	4,271.65	2,786.84	3,400.10
April 2045	1,778.23	4,059.13	2,647.36	3,229.05
May 2045	1,693.96	3,854.11	2,513.23	3,064.60
June 2045	1,612.98	3,656.38	2,384.28	2,906.52
July 2045	1,535.18	3,465.68	2,260.32	2,754.59
August 2045	1,460.44	3,281.80	2,141.18	2,608.59
September 2045	1,388.64	3,104.51	2,026.68	2,468.32
October 2045	1,319.70	2,933.61	1,916.67	2,333.56
November 2045	1,253.50	2,768.88	1,810.97	2,204.12
December 2045	1,189.94	2,610.13	1,709.44	2,079.81
January 2046	1,128.94	2,457.16	1,611.93	1,960.45
February 2046	1,070.39	2,309.79	1,518.30	1,845.86
March 2046	1,014.21	2,167.84	1,428.40	1,735.87
April 2046	960.31	2,031.12	1,342.10	1,630.31
May 2046	908.61	1,899.47	1,259.27	1,529.03
June 2046	859.02	1,772.72	1,179.79	1,431.86
July 2046	811.48	1,650.71	1,103.53	1,338.67
August 2046	765.90	1,533.28	1,030.39	1,249.29
September 2046	722.22	1,420.29	960.23	1,163.61
October 2046	680.36	1,311.58	892.97	1,081.48
November 2046	640.26	1,207.02	828.49	1,002.77
December 2046	601.85	1,106.47	766.68	927.35
January 2047	565.06	1,009.79	707.46	855.11
February 2047	529.85	916.86	650.72	785.93
1 cordary 201/	<i>J</i> 2/.0/	710.00	0,00.72	, 0, 5, 5, 5

Distribution Date	Classes MP and M (in the aggregat		Class FW	Class QA	Class QB
March 2047	\$ 496.1	4 \$	827.54	\$ 596.37	\$ 719.70
April 2047	463.8	9	741.73	544.33	656.30
May 2047	433.0	4	659.30	494.52	595.63
June 2047	403.5	3	580.13	446.83	537.60
July 2047	375.3	2	504.13	401.21	482.09
August 2047	348.3	5	431.17	357.57	429.02
September 2047	322.5	8	361.16	315.83	378.30
October 2047	297.9	7	294.00	275.93	329.83
November 2047	274.4	6	229.59	237.79	283.53
December 2047	252.0	2	167.83	201.36	239.32
January 2048	230.6	1	108.64	166.55	197.13
February 2048	210.1	9	51.93	133.32	156.86
March 2048	190.7	1	0.00	101.60	118.46
April 2048	172.1	4	0.00	71.33	81.84
May 2048	154.4	5	0.00	42.47	46.95
June 2048	137.6	0	0.00	14.94	13.70
July 2048	121.5	6	0.00	0.00	0.00
August 2048	106.3	0	0.00	0.00	0.00
September 2048	91.7	8	0.00	0.00	0.00
October 2048	77.9	9	0.00	0.00	0.00
November 2048	64.8	8	0.00	0.00	0.00
December 2048	52.4	3	0.00	0.00	0.00
January 2049	40.6	1	0.00	0.00	0.00
February 2049	29.4	1	0.00	0.00	0.00
March 2049	18.7	8	0.00	0.00	0.00
April 2049	8.7	2	0.00	0.00	0.00
May 2049 and thereafter	0.0	0	0.00	0.00	0.00

Initial Balance	Distribution Date	Class WF	Classes QC, QF and QY (in the aggregate)	Classes HP and PY (in the aggregate)
September 2019         43,665,617.16         35,810,270.20         66,724,721.24           October 2019         43,468,514.87         35,682,298.68         66,519,683.89           November 2019         43,248,958.39         35,540,662.83         66,295,818.49           December 2019         43,007,095.18         35,385,435.25         66,053,221.16           January 2020         42,743,098.69         35,216,702.54         65,792,002.52           February 2020         42,149,529.14         34,839,137.77         65,214,215.63           April 2020         41,820,431.72         34,630,548.30         64,897,940.29           May 2020         41,470,151.83         34,408,938.68         64,563,629.20           Jure 2020         41,098,990.14         34,174,464.24         64,211,463.99           July 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         39,863,585.44         33,397,293.65         63,841,640.07           August 2020         38,452,662	Initial Balance	\$43,992,000.00	\$36,025,000.00	\$67,078,000.00
October 2019         43,468,514.87         35,682,298.68         66,519,683.89           November 2019         43,248,958.39         35,540,662.83         66,295,818.49           December 2019         43,007,095.18         35,854,352.5         65,792,002.52           February 2020         42,743,098.69         35,216,702.54         65,792,002.52           February 2020         42,149,529.14         34,839,137.77         65,214,215.63           April 2020         41,820,431.72         34,630,548.30         64,897,940.29           May 2020         41,470,151.83         34,408,938.68         64,563,629.20           June 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,295,345.95         33,667,608.70         63,443,665.50           September 2020         39,863,885.44         33,395,604.13         63,049,865.76           October 2020         39,412,386.09         33,111,487.32         62,628,373.53           November 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,421.89         51,264,498.09           February 2021         36,880,199.14         31,517,331.00	August 2019		35,924,518.82	
November 2019         43,248,958.39         35,540,662.83         66,295,818.49           December 2019         43,007,095.18         35,385,435.25         66,053,221.16           January 2020         42,743,098.69         35,221,670,244         66,053,221.16           February 2020         42,445,168.32         35,034,565.24         65,512,287.56           March 2020         42,149,529.14         34,889,137.77         65,214,215.63           April 2020         41,820,431.72         34,630,548.30         64,807,940.29           May 2020         41,701,511.83         34,408,938.68         64,563,629.20           July 2020         40,707,271.78         33,297,293.65         63,416.40.07           August 2020         40,707,271.78         33,297,293.65         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,496,867.60           October 2020         39,482,366.22         32,817,487.89         62,190,138.49           December 2020         38,492,166.22         32,818,741.93         61,264,498.09           February 2021         37,464.469.09         32,188,721.93         61,264,498.09           February 2021         37,421,890.73         31,858,474.01         60,777,1652.68           March 2021         36,321,892	September 2019	43,665,617.16	35,810,270.20	66,724,721.24
November 2019         43,248,958,39         35,540,662.83         66,295,818.49           December 2019         43,007,095.18         35,854,352.5         66,059,202,12.16           January 2020         42,743,098.69         35,216,702,54         65,792,002,52           February 2020         42,445,7168,32         35,034,565,24         65,512,287.56           March 2020         41,820,431.72         34,630,548.30         68,897,940.29           May 2020         41,701,51.83         34,088,388.68         64,563,629.20           July 2020         40,707,271.78         33,297,293.65         63,841,640.07           August 2020         40,707,271.78         33,397,293.65         63,841,640.07           August 2020         40,707,271.78         33,397,608.70         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         38,942,166.22         32,818,741.93         62,190,138.49           December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,421,890.73         31,888,721.93         61,264,498.09           June 2021         35,747,510.	*	43,468,514.87	, , , , , , , , , , , , , , , , , , ,	, ,
December 2019         43,007,095.18         35,385,435.25         66,053,221.16           January 2020         42,743,098.69         35,216,702.54         65,792,002.52           February 2020         42,447,168.32         35,034,565.24         65,792,002.52           March 2020         41,820,431.72         34,630,548.30         64,897,940.29           May 2020         41,820,451.72         34,630,548.30         64,897,940.29           June 2020         41,098,990.14         34,174,464.24         64,211,463.99           July 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,295,345.95         33,667,608.70         63,444,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         39,412,386.09         33,111,487.32         62,628,373.53           November 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,615,570.05         59,757,400.95           May 2021         35,475,101.44         30,633,478.70         59,757,400.95           May 2021         35,475,101.44	November 2019			
January 2020				
February 2020         42,457,168.32         35,034,565.24         65,512,287.56           March 2020         42,149,529.14         34,839,137.77         65,214,215.63           April 2020         41,820,431.72         34,630,548.36         64,867,940.29           May 2020         41,470,151.83         34,408,938.68         64,563,629.20           June 2020         41,098,990.14         34,174,64.24         64,211,463.99           July 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,295,345.95         33,667,608.70         63,454,366.50           September 2020         39,803,585.44         33,395,604.13         63,049,805.76           October 2020         39,412,386.09         33,111,487.32         62,290,138.49           December 2020         38,942,166.22         32,188,721.93         61,264,498.09           January 2021         37,946,446.90         32,188,721.93         61,264,498.09           Pebruary 2021         37,421,890.73         31,588,474.01         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,777,652.68           March 2021         35,747,510.14         30,803,478.70         59,224,624.95           July 2021         35,747,510.14				
March 2020         42,149,529.14         34,839,137.77         65,214,215.63           April 2020         41,820,431.72         34,630,548.30         64,897,940.29           June 2020         41,707,151.73         34,080,938.68         64,857,629.20           June 2020         41,098,990.14         34,174,464.24         64,211,463.99           July 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,295,345.95         33,667,608.70         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         38,942,166.22         32,815,478.09         62,288,373.53           November 2020         38,543,366.03         32,118,783.20         61,264,498.09           Pebruary 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         36,880,199.14         31,1517,331.00         60,277,652.68           March 2021         36,880,199.14         31,1517,331.00         60,275,183.79           April 2021         35,747,510.14         30,803,478.70         59,254,624.95           June 2021         35,747,510.14         30,803,478.70         59,257,400.05           May 2021         34,552,756.86	•			
April 2020         41,820,431.72         34,630,548.30         64,897,940.29           May 2020         41,470,151.83         34,408,938.68         64,563,629.20           June 2020         41,098,990.14         34,174,646.24         64,211,463.99           July 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,295,345.95         33,667,608.70         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         39,412,386.09         33,111,487.32         62,628,373.53           November 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.09         32,188,721.93         61,264,498.09           February 2021         37,946,446.09         32,188,721.93         61,264,498.09           February 2021         36,281,892.70         31,165,7500.5         60,777,652.68           March 2021         36,281,892.70         31,165,5700.5         59,757,409.5           May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,557,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86				
May 2020         41,470,151.83         34,408,938.68         64,563,629.20           June 2020         41,098,990.14         34,174,464.24         64,211,463.99           July 2020         40,707,271.78         33,927,293.65         63,841,660.07           August 2020         40,295,345.95         33,667,608.70         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         38,421,66.22         32,815,478.09         62,190,138.49           December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         37,421,890.73         31,515,331.00         60,275,183.79           April 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,880,199.14         31,517,331.00         60,275,183.79           May 2021         35,157,607.42         30,431,354.48         58,677,187.40           June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,117,430.77           August 2021         33,303,546.22         <				
June 2020         41,098,990.14         34,174,464.24         64,211,463.99           July 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,295,345.95         33,667,608.70         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         39,412,386.09         33,111,487.32         62,628,373.53           November 2020         38,942,166.22         32,815,478.09         62,190,138.49           December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.90         32,188,719.31         61,264,498.09           February 2021         37,421,890.73         31,155,750.05         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,777,652.68           March 2021         36,321,892.70         31,165,570.05         59,757,400.95           May 2021         35,157,607.42         30,434,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,333,354.62         29,558,447.2         57,359,707.23           September 2021         32,654,467.03	•			
July 2020         40,707,271.78         33,927,293.65         63,841,640.07           August 2020         40,295,345.95         33,667,608.70         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         39,412,386.02         32,115,478.09         62,190,138.49           December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,880,199.14         31,655,700.5         59,757,400.95           May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,57,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,303,546.22         29,658,244.72         57,539,707.23           September 2021         33,305,777.2         29,257,900.15         56,950,379.06           October 2021         31,386,685.93	•			
August 2020         40,295,345.95         33,667,608.70         63,454,366.50           September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         39,412,386.09         33,111,487.32         62,628,373.53           November 2020         38,942,166.22         32,815,478.09         62,190,138.49           December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.90         32,188.721.93         61,264,498.09           February 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,165,570.05         59,757,400.95           May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.07.42         30,431,354.48         58,677,187.48           July 2021         33,305,77.72         29,257,900.15         56,950,379.06           October 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,016,536.85         28,481,296.04         55,732,404.11           December 2021         31,386,685.93	*			
September 2020         39,863,585.44         33,395,604.13         63,049,865.76           October 2020         39,412,386.09         33,111,487.32         62,628,373.53           November 2020         38,942,166.22         32,815,478.09         62,190,138.49           December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,321,892.70         31,165,570.05         59,757,400.95           May 2021         35,177,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,393,546.22         29,658,244.72         57,539,707.23           September 2021         33,305,777.72         29,257,900.15         56,950,379.06           October 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,005,506.87         54,481,791.16           February 2022         29,544	• •		, , , , , , , , , , , , , , , , , , ,	, ,
October 2020         39,412,386.09         33,111,487.32         62,628,373.53           November 2020         38,942,166.22         32,815,478.09         62,190,138.49           December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,321,892.70         31,165,570.05         59,757,400.95           May 2021         35,157,607.42         30,431,554.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,933,546.22         29,658,244.72         57,539,070.23           September 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         29,544,614	e			
November 2020         38,941,166.22         32,815,478.09         62,190,138.49           December 2020         38,453,366.03         32,507,808,38         61,735,422.05           January 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,321,892.70         31,165,570.05         59,757,400.95           May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,303,577.72         29,257,900.15         56,950,379.06           October 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,251,571.07           April 2022         28,946,092.47 <td>•</td> <td> / - / -</td> <td></td> <td>, ,</td>	•	/ - / -		, ,
December 2020         38,453,366.03         32,507,808.38         61,735,422.05           January 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,521,892.70         31,165,570.05         59,757,400.95           May 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,393,546.22         29,658,244.72         57,539,707.23           September 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         31,386,685.93         28,018,246.04         55,752,404.11           December 2021         31,386,685.93         28,018,246.01         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,346,092.4				
January 2021         37,946,446.90         32,188,721.93         61,264,498.09           February 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,321,892.70         31,165,570.05         59,757,400.95           May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,393,546.22         29,658,244.72         57,539,707.23           September 2021         33,300,577.22         29,257,900.15         56,950,379.06           October 2021         32,016,536.85         28,481,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         27,777,727.94				
February 2021         37,421,890.73         31,858,474.01         60,777,652.68           March 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,321,892.70         31,165,570.05         59,757,400.95           May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,933,546.22         29,658,244.72         57,539,707.23           September 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,355,161.64         26,018,094.57         52,041,402.85           June 2022         27,771,5698.48				
March 2021         36,880,199.14         31,517,331.00         60,275,183.79           April 2021         36,321,892.70         31,165,570.05         59,757,400.95           May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,555,675.68         30,049,504.43         58,115,430.77           August 2021         33,933,546.22         29,658,244.72         57,539,707.23           September 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         272,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,946,092.47	· · · · · · · · · · · · · · · · · · ·			
April 2021       36,321,892.70       31,165,570.05       59,757,400.95         May 2021       35,747,510.14       30,803,478.70       59,224,624.95         June 2021       35,157,607.42       30,431,354.48       58,677,187.48         July 2021       34,552,756.86       30,049,504.43       58,115,430.77         August 2021       33,933,546.22       29,658,244.72       57,539,707.23         September 2021       32,654,467.03       28,848,803.71       56,347,817.83         November 2021       32,016,536.85       28,431,296.04       55,732,404.11         December 2021       31,386,685.93       28,018,243.61       55,104,527.00         January 2022       30,764,814.23       27,609,596.87       54,481,791.16         February 2022       30,150,822.95       27,205,306.81       53,864,153.45         March 2022       29,544,614.50       26,805,324.97       53,251,571.07         April 2022       28,346,092.47       26,409,603.37       52,644,001.57         May 2022       28,346,092.47       26,409,603.37       52,644,001.57         May 2022       28,355,161.64       26,018,094.57       52,041,402.85         June 2022       27,717,27.94       25,630,751.64       51,443,733.14         July 2022       27,1	·			
May 2021         35,747,510.14         30,803,478.70         59,224,624.95           June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,933,546.22         29,658,244.72         57,539,707.23           September 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,654,467.02         28,848,803.71         56,347,817.83           November 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,946,092.47         26,409,603.37         52,041,402.85           June 2022         27,717,279.49         25,630,751.64         51,443,733.14           July 2022         27,195,698.48				
June 2021         35,157,607.42         30,431,354.48         58,677,187.48           July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,933,546.22         29,658,244.72         57,539,707.23           September 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,009,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,955,161.64         26,018,094.57         52,041,402.85           June 2022         27,771,727.94         25,630,751.64         51,443,733.14           July 2022         27,195,698.48	•			
July 2021         34,552,756.86         30,049,504.43         58,115,430.77           August 2021         33,933,546.22         29,658,244.72         57,539,707.23           September 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         31,386,685.93         28,018,243.61         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,355,161.64         26,018,094.57         52,041,402.85           June 2022         27,771,727.94         25,630,751.64         51,443,733.14           July 2022         27,956,984.8         25,247,528.15         50,850,950.99           August 2022         26,626,981.47	•			
August 2021       33,933,546.22       29,658,244.72       57,539,707.23         September 2021       33,300,577.72       29,257,900.15       56,950,379.06         October 2021       32,654,467.03       28,848,803.71       56,347,817.83         November 2021       32,016,536.85       28,431,296.04       55,732,404.11         December 2021       31,386,685.93       28,018,243.61       55,104,527.00         January 2022       30,764,814.23       27,609,596.87       54,481,791.16         February 2022       30,150,822.95       27,205,306.81       53,864,153.45         March 2022       29,544,614.50       26,805,324.97       53,251,571.07         April 2022       28,946,092.47       26,409,603.37       52,644,001.57         May 2022       28,355,161.64       26,018,094.57       52,041,402.85         June 2022       27,771,727.94       25,630,751.64       51,443,733.14         July 2022       27,195,698.48       25,247,528.15       50,850,950.99         August 2022       26,626,981.47       24,868,378.15       50,263,015.29         September 2022       26,662,981.47       24,868,378.15       50,263,015.29         September 2022       25,511,123.35       24,122,117.40       49,101,520.49         November 202	*			
September 2021         33,300,577.72         29,257,900.15         56,950,379.06           October 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,355,161.64         26,018,094.57         52,041,402.85           June 2022         27,771,727.94         25,630,751.64         51,443,733.14           July 2022         27,195,698.48         25,247,528.15         50,850,950.99           August 2022         26,626,981.47         24,868,378.15         50,263,015.29           September 2022         26,662,981.47         24,868,378.15         50,263,015.29           November 2022         25,511,123.35         24,122,117.40         49,101,520.49           November 2022         24,638,804.	. ,			
October 2021         32,654,467.03         28,848,803.71         56,347,817.83           November 2021         32,016,536.85         28,431,296.04         55,732,404.11           December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,355,161.64         26,018,094.57         52,041,402.85           June 2022         27,771,727.94         25,630,751.64         51,443,733.14           July 2022         27,195,698.48         25,247,528.15         50,850,950.99           August 2022         26,626,981.47         24,868,378.15         50,263,015.29           September 2022         26,605,486.28         24,493,256.22         49,679,885.28           October 2022         25,511,123.35         24,122,117.40         49,101,520.49           November 2022         24,963,804.24         23,754,917.22         48,527,880.81           December 2022         24,423,441.59	e			
November 2021       32,016,536.85       28,431,296.04       55,732,404.11         December 2021       31,386,685.93       28,018,243.61       55,104,527.00         January 2022       30,764,814.23       27,609,596.87       54,481,791.16         February 2022       30,150,822.95       27,205,306.81       53,864,153.45         March 2022       29,544,614.50       26,805,324.97       53,251,571.07         April 2022       28,946,092.47       26,409,603.37       52,644,001.57         May 2022       28,355,161.64       26,018,094.57       52,041,402.85         June 2022       27,771,727.94       25,630,751.64       51,443,733.14         July 2022       27,195,698.48       25,247,528.15       50,850,950.99         August 2022       26,626,981.47       24,868,378.15       50,263,015.29         September 2022       26,605,486.28       24,493,256.22       49,679,885.28         October 2022       25,511,123.35       24,122,117.40       49,101,520.49         November 2022       24,963,804.24       23,754,917.22       48,527,880.81         December 2022       24,423,441.59       23,391,611.68       47,958,926.43         January 2023       23,889,949.11       23,032,157.28       47,394,617.86         February 2023	1			
December 2021         31,386,685.93         28,018,243.61         55,104,527.00           January 2022         30,764,814.23         27,609,596.87         54,481,791.16           February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,355,161.64         26,018,094.57         52,041,402.85           June 2022         27,771,727.94         25,630,751.64         51,443,733.14           July 2022         27,195,698.48         25,247,528.15         50,850,950.99           August 2022         26,626,981.47         24,868,378.15         50,263,015.29           September 2022         26,065,486.28         24,493,256.22         49,679,885.28           October 2022         25,511,123.35         24,122,117.40         49,101,520.49           November 2022         24,963,804.24         23,754,917.22         48,527,880.81           December 2022         24,423,441.59         23,391,611.68         47,958,926.43           January 2023         23,889,949.11         23,032,157.28         47,394,617.86           February 2023         23,363,241.55				
January 202230,764,814.2327,609,596.8754,481,791.16February 202230,150,822.9527,205,306.8153,864,153.45March 202229,544,614.5026,805,324.9753,251,571.07April 202228,946,092.4726,409,603.3752,644,001.57May 202228,355,161.6426,018,094.5752,041,402.85June 202227,771,727.9425,630,751.6451,443,733.14July 202227,195,698.4825,247,528.1550,850,950.99August 202226,626,981.4724,868,378.1550,263,015.29September 202226,065,486.2824,493,256.2249,679,885.28October 202225,511,123.3524,122,117.4049,101,520.49November 202224,963,804.2423,754,917.2248,527,880.81December 202224,423,441.5923,391,611.6847,958,926.43January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86				
February 2022         30,150,822.95         27,205,306.81         53,864,153.45           March 2022         29,544,614.50         26,805,324.97         53,251,571.07           April 2022         28,946,092.47         26,409,603.37         52,644,001.57           May 2022         28,355,161.64         26,018,094.57         52,041,402.85           June 2022         27,771,727.94         25,630,751.64         51,443,733.14           July 2022         27,195,698.48         25,247,528.15         50,850,950.99           August 2022         26,626,981.47         24,868,378.15         50,263,015.29           September 2022         26,065,486.28         24,493,256.22         49,679,885.28           October 2022         25,511,123.35         24,122,117.40         49,101,520.49           November 2022         24,963,804.24         23,754,917.22         48,527,880.81           December 2022         24,423,441.59         23,391,611.68         47,958,926.43           January 2023         23,889,949.11         23,032,157.28         47,394,617.86           February 2023         23,363,241.55         22,676,510.95         46,834,915.92           March 2023         22,843,234.73         22,324,630.10         46,279,781.77           April 2023         22,329,845.48				
March 202229,544,614.5026,805,324.9753,251,571.07April 202228,946,092.4726,409,603.3752,644,001.57May 202228,355,161.6426,018,094.5752,041,402.85June 202227,771,727.9425,630,751.6451,443,733.14July 202227,195,698.4825,247,528.1550,850,950.99August 202226,626,981.4724,868,378.1550,263,015.29September 202226,065,486.2824,493,256.2249,679,885.28October 202225,511,123.3524,122,117.4049,101,520.49November 202224,963,804.2423,754,917.2248,527,880.81December 202224,423,441.5923,391,611.6847,958,926.43January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86				
April 202228,946,092.4726,409,603.3752,644,001.57May 202228,355,161.6426,018,094.5752,041,402.85June 202227,771,727.9425,630,751.6451,443,733.14July 202227,195,698.4825,247,528.1550,850,950.99August 202226,626,981.4724,868,378.1550,263,015.29September 202226,065,486.2824,493,256.2249,679,885.28October 202225,511,123.3524,122,117.4049,101,520.49November 202224,963,804.2423,754,917.2248,527,880.81December 202224,423,441.5923,391,611.6847,958,926.43January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86	*			
May 202228,355,161.6426,018,094.5752,041,402.85June 202227,771,727.9425,630,751.6451,443,733.14July 202227,195,698.4825,247,528.1550,850,950.99August 202226,626,981.4724,868,378.1550,263,015.29September 202226,065,486.2824,493,256.2249,679,885.28October 202225,511,123.3524,122,117.4049,101,520.49November 202224,963,804.2423,754,917.2248,527,880.81December 202224,423,441.5923,391,611.6847,958,926.43January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86			, , , , -	
June 202227,771,727.9425,630,751.6451,443,733.14July 202227,195,698.4825,247,528.1550,850,950.99August 202226,626,981.4724,868,378.1550,263,015.29September 202226,065,486.2824,493,256.2249,679,885.28October 202225,511,123.3524,122,117.4049,101,520.49November 202224,963,804.2423,754,917.2248,527,880.81December 202224,423,441.5923,391,611.6847,958,926.43January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86	_			
July 202227,195,698.4825,247,528.1550,850,950.99August 202226,626,981.4724,868,378.1550,263,015.29September 202226,065,486.2824,493,256.2249,679,885.28October 202225,511,123.3524,122,117.4049,101,520.49November 202224,963,804.2423,754,917.2248,527,880.81December 202224,423,441.5923,391,611.6847,958,926.43January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86	•			
August 2022       26,626,981.47       24,868,378.15       50,263,015.29         September 2022       26,065,486.28       24,493,256.22       49,679,885.28         October 2022       25,511,123.35       24,122,117.40       49,101,520.49         November 2022       24,963,804.24       23,754,917.22       48,527,880.81         December 2022       24,423,441.59       23,391,611.68       47,958,926.43         January 2023       23,889,949.11       23,032,157.28       47,394,617.86         February 2023       23,363,241.55       22,676,510.95       46,834,915.92         March 2023       22,843,234.73       22,324,630.10       46,279,781.77         April 2023       22,329,845.48       21,976,472.61       45,729,176.86	•			
September 202226,065,486.2824,493,256.2249,679,885.28October 202225,511,123.3524,122,117.4049,101,520.49November 202224,963,804.2423,754,917.2248,527,880.81December 202224,423,441.5923,391,611.6847,958,926.43January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86	•			
October 2022       25,511,123.35       24,122,117.40       49,101,520.49         November 2022       24,963,804.24       23,754,917.22       48,527,880.81         December 2022       24,423,441.59       23,391,611.68       47,958,926.43         January 2023       23,889,949.11       23,032,157.28       47,394,617.86         February 2023       23,363,241.55       22,676,510.95       46,834,915.92         March 2023       22,843,234.73       22,324,630.10       46,279,781.77         April 2023       22,329,845.48       21,976,472.61       45,729,176.86	e			
November 2022       24,963,804.24       23,754,917.22       48,527,880.81         December 2022       24,423,441.59       23,391,611.68       47,958,926.43         January 2023       23,889,949.11       23,032,157.28       47,394,617.86         February 2023       23,363,241.55       22,676,510.95       46,834,915.92         March 2023       22,843,234.73       22,324,630.10       46,279,781.77         April 2023       22,329,845.48       21,976,472.61       45,729,176.86	*			
December 2022       24,423,441.59       23,391,611.68       47,958,926.43         January 2023       23,889,949.11       23,032,157.28       47,394,617.86         February 2023       23,363,241.55       22,676,510.95       46,834,915.92         March 2023       22,843,234.73       22,324,630.10       46,279,781.77         April 2023       22,329,845.48       21,976,472.61       45,729,176.86				
January 202323,889,949.1123,032,157.2847,394,617.86February 202323,363,241.5522,676,510.9546,834,915.92March 202322,843,234.7322,324,630.1046,279,781.77April 202322,329,845.4821,976,472.6145,729,176.86				
February 2023       23,363,241.55       22,676,510.95       46,834,915.92         March 2023       22,843,234.73       22,324,630.10       46,279,781.77         April 2023       22,329,845.48       21,976,472.61       45,729,176.86			, , , , , , , , , , , , , , , , , , ,	, ,
March 2023	•			
April 2023	·			
	•			

Distribution Date	Class WF	Classes QC, QF and QY (in the aggregate)	Classes HP and PY (in the aggregate)
June 2023	\$21,322,592.10	\$21,291,161.41	\$44,641,402.10
July 2023	20,828,566.69	20,953,925.68	44,104,156.69
August 2023	20,340,836.26	20,620,249.25	43,571,289.40
September 2023	19,859,322.60	20,290,092.20	43,042,763.20
October 2023	19,383,948.48	19,963,415.03	42,518,541.36
November 2023	18,914,637.61	19,640,178.69	41,998,587.44
December 2023	18,451,314.64	19,320,344.52	41,482,865.29
January 2024	17,993,905.11	19,003,874.29	40,971,339.07
February 2024	17,542,335.53	18,690,730.19	40,463,973.20
March 2024	17,096,533.25	18,380,874.79	39,960,732.41
April 2024	16,656,426.57	18,074,271.09	39,461,581.69
May 2024	16,221,944.61	17,770,882.46	38,966,486.32
June 2024	15,793,017.41	17,470,672.69	38,475,411.86
July 2024	15,369,575.83	17,173,605.95	37,988,324.15
August 2024	14,951,551.59	16,879,646.77	37,505,189.28
September 2024	14,538,877.26	16,588,760.10	37,025,973.66
October 2024	14,131,486.23	16,300,911.24	36,550,643.91
November 2024	13,735,178.66	16,016,065.87	36,079,166.96
December 2024	13,349,852.98	15,734,190.05	35,611,509.99
January 2025	12,975,207.61	15,455,250.18	35,147,640.44
February 2025	12,610,949.17	15,179,213.04	34,687,526.01
March 2025	12,256,792.31	14,906,045.76	34,231,134.68
April 2025	11,912,459.45	14,637,262.00	33,778,434.66
May 2025	11,577,680.59	14,373,174.70	33,329,394.42
June 2025	11,252,193.10	14,113,703.42	32,883,982.70
July 2025	10,935,741.52	13,858,769.08	32,442,168.47
August 2025	10,628,077.34	13,608,293.93	32,003,920.95
September 2025	10,328,958.88	13,362,201.53	31,569,209.62
October 2025	10,038,151.01	13,120,416.75	31,138,004.21
November 2025	9,755,425.06	12,882,865.72	30,710,274.65
December 2025	9,480,558.59	12,649,475.82	30,285,991.17
January 2026	9,213,335.24	12,420,175.66	29,865,124.20
February 2026	8,953,544.55	12,194,895.06	29,447,644.41
March 2026	8,700,981.84	11,973,565.02	29,033,522.72
April 2026	8,455,447.99	11,756,117.71	28,622,730.27
May 2026	8,216,749.36	11,542,486.46	28,216,609.76
June 2026	7,984,697.56	11,332,605.73	27,815,910.97
July 2026	7,759,109.40	11,126,411.06	27,420,564.01
August 2026	7,539,806.67	10,923,839.12	27,030,499.90
September 2026	7,326,616.04	10,724,827.63	26,645,650.53
October 2026	7,119,368.93	10,529,315.37	26,265,948.65
November 2026	6,917,901.36	10,337,242.16	25,891,327.84
December 2026	6,722,053.86	10,148,548.84	25,521,722.53
January 2027	6,531,671.30	9,963,177.26	25,157,067.98
February 2027	6,346,602.81	9,781,070.23	24,797,300.26
March 2027	6,166,701.66	9,602,171.57	24,442,356.26
April 2027	5,991,825.12	9,426,426.01	24,092,173.64

Distribution Date	_	Class WF	Classes QC, QF and QY (in the aggregate)	Classes HP and PY (in the aggregate)
May 2027	\$	5,821,834.39	\$ 9,253,779.26	\$23,746,690.89
June 2027		5,656,594.46	9,084,177.91	23,405,847.22
July 2027		5,495,974.01	8,917,569.49	23,069,582.67
August 2027		5,339,845.35	8,753,902.40	22,737,837.98
September 2027		5,188,084.25	8,593,125.93	22,410,554.68
October 2027		5,040,569.93	8,435,190.21	22,087,675.01
November 2027		4,897,184.89	8,280,046.25	21,769,141.97
December 2027		4,757,814.86	8,127,645.85	21,454,899.26
January 2028		4,622,348.71	7,977,941.68	21,144,891.28
February 2028		4,490,678.37	7,830,887.17	20,839,063.17
March 2028		4,362,698.70	7,686,436.55	20,537,360.74
April 2028		4,238,307.49	7,544,544.86	20,239,730.48
May 2028		4,117,405.30	7,405,167.85	19,946,119.58
June 2028		3,999,895.45	7,268,262.08	19,656,475.86
July 2028		3,885,683.89	7,133,784.81	19,370,747.86
August 2028		3,774,679.17	7,001,694.03	19,088,884.70
September 2028		3,666,792.35	6,871,948.47	18,810,836.21
October 2028		3,561,936.92	6,744,507.53	18,536,552.82
November 2028		3,460,028.77	6,619,331.33	18,265,985.58
December 2028		3,360,986.08	6,496,380.65	17,999,086.19
January 2029		3,264,729.31	6,375,616.94	17,735,806.95
February 2029		3,171,181.08	6,257,002.31	17,476,100.75
March 2029		3,080,266.14	6,140,499.53	17,219,921.10
April 2029		2,991,911.33	6,026,071.97	16,967,222.09
May 2029		2,906,045.48	5,913,683.65	16,717,958.38
June 2029		2,822,599.40	5,803,299.20	16,472,085.23
July 2029		2,741,505.79	5,694,883.85	16,229,558.44
August 2029		2,662,699.21	5,588,403.42	15,990,334.41
September 2029		2,586,116.03	5,483,824.32	15,754,370.04
October 2029		2,511,694.35	5,381,113.52	15,521,622.83
November 2029		2,439,374.00	5,280,238.58	15,292,050.79
December 2029		2,369,096.45	5,181,167.57	15,065,612.47
January 2030		2,300,804.79	5,083,869.16	14,842,266.94
February 2030		2,234,443.69	4,988,312.50	14,621,973.81
March 2030		2,169,959.34	4,894,467.30	14,404,693.19
April 2030		2,107,299.39	4,802,303.79	14,190,385.69
May 2030		2,046,412.98	4,711,792.69	13,979,012.43
June 2030		1,987,250.61	4,622,905.23	13,770,535.03
July 2030		1,929,764.18	4,535,613.13	13,564,915.59
August 2030		1,873,906.89	4,449,888.59	13,362,116.69
September 2030		1,819,633.26	4,365,704.30	13,162,101.40
October 2030		1,766,899.03	4,283,033.39	12,964,833.24
November 2030		1,715,661.21	4,201,849.48	12,770,276.22
December 2030		1,665,877.96	4,122,126.62	12,578,394.78
January 2031		1,617,508.61	4,043,839.31	12,389,153.85
February 2031		1,570,513.62	3,966,962.49	12,202,518.76
March 2031		1,524,854.53	3,891,471.52	12,018,455.31

Distribution Date	Class WF	Classes QC, QF and QY (in the aggregate)	Classes HP and PY (in the aggregate)
April 2031	\$ 1,480,493.95	\$ 3,817,342.20	\$11,836,929.75
May 2031	1,437,395.54	3,744,550.72	11,657,908.73
June 2031	1,395,523.94	3,673,073.70	11,481,359.35
July 2031	1,354,844.78	3,602,888.15	11,307,249.10
August 2031	1,315,324.64	3,533,971.47	11,135,545.92
September 2031	1,276,931.04	3,466,301.46	10,966,218.14
October 2031	1,239,632.38	3,399,856.29	10,799,234.49
November 2031	1,203,397.94	3,334,614.50	10,634,564.12
December 2031	1,168,197.86	3,270,555.02	10,472,176.54
January 2032	1,134,003.10	3,207,657.12	10,312,041.70
February 2032	1,100,785.43	3,145,900.43	10,154,129.88
March 2032	1,068,517.40	3,085,264.94	9,998,411.77
April 2032	1,037,172.32	3,025,730.97	9,844,858.44
May 2032	1,006,724.25	2,967,279.19	9,693,441.31
June 2032	977,147.95	2,909,890.59	9,544,132.18
July 2032	948,418.91	2,853,546.51	9,396,903.20
August 2032	920,513.28	2,798,228.57	9,251,726.90
September 2032	893,407.87	2,743,918.75	9,108,576.12
October 2032	867,080.16	2,690,599.30	8,967,424.09
November 2032	841,508.21	2,638,252.82	8,828,244.36
December 2032	816,670.75	2,586,862.16	8,691,010.83
January 2033	792,547.04	2,536,410.51	8,555,697.72
February 2033	769,116.97	2,486,881.32	8,422,279.60
March 2033	746,360.96	2,438,258.33	8,290,731.34
April 2033	724,259.98	2,390,525.57	8,161,028.17
May 2033	702,795.53	2,343,667.34	8,033,145.60
June 2033	681,949.62	2,297,668.20	7,907,059.47
July 2033	661,704.78	2,252,513.00	7,782,745.94
August 2033	642,044.02	2,208,186.83	7,660,181.46
September 2033	622,950.80	2,164,675.04	7,539,342.79
October 2033	604,409.07	2,121,963.25	7,420,207.00
November 2033	586,403.22	2,080,037.30	7,302,751.42
December 2033	568,918.07	2,038,883.30	7,186,953.71
January 2034	551,938.86	1,998,487.58	7,072,791.80
February 2034	535,451.26	1,958,836.73	6,960,243.90
March 2034	519,441.33	1,919,917.54	6,849,288.51
April 2034	503,895.51	1,881,717.06	6,739,904.40
May 2034	488,800.63	1,844,222.54	6,632,070.61
June 2034	474,143.89	1,807,421.46	6,525,766.47
July 2034	459,912.84	1,771,301.52	6,420,971.55
August 2034	446,095.38	1,735,850.63	6,317,665.70
September 2034	432,679.75	1,701,056.90	6,215,829.03
October 2034	419,654.53	1,666,908.66	6,115,441.89
November 2034	407,008.60	1,633,394.43	6,016,484.90
December 2034	394,731.16	1,600,502.94	5,918,938.92
January 2035	382,811.72	1,568,223.11	5,822,785.07
February 2035	371,240.08	1,536,544.05	5,728,004.70
10010001, 2000	5/1,210.00	1,000,011.00	J, / <b>=</b> 0,00 1. / 0

Distribution Date	Class WF	Classes QC, QF and QY (in the aggregate)	Classes HP and PY (in the aggregate)
March 2035	\$ 360,006.31	\$ 1,505,455.07	\$ 5,634,579.41
April 2035	349,100.79	1,474,945.64	5,542,491.03
May 2035	338,514.14	1,445,005.43	5,451,721.63
June 2035	328,237.25	1,415,624.30	5,362,253.51
July 2035	318,261.29	1,386,792.27	5,274,069.20
August 2035	308,577.64	1,358,499.53	5,187,151.46
September 2035	299,177.96	1,330,736.46	5,101,483.25
October 2035	290,054.11	1,303,493.58	5,017,047.79
November 2035	281,198.19	1,276,761.60	4,933,828.48
December 2035	272,602.55	1,250,531.37	4,851,808.96
January 2036	264,259.72	1,224,793.92	4,770,973.06
February 2036	256,162.44	1,199,540.42	4,691,304.85
March 2036	248,303.69	1,174,762.21	4,612,788.58
April 2036	240,676.61	1,150,450.75	4,535,408.71
May 2036	233,274.55	1,126,597.69	4,459,149.90
June 2036	226,091.04	1,103,194.79	4,383,997.02
July 2036	219,119.81	1,080,233.98	4,309,935.13
August 2036	212,354.75	1,057,707.31	4,236,949.48
September 2036	205,789.92	1,035,606.97	4,165,025.51
October 2036	199,419.57	1,013,925.31	4,094,148.86
November 2036	193,238.08	992,654.78	4,024,305.35
December 2036	187,240.02	971,788.00	3,955,480.99
January 2037	181,420.09	951,317.67	3,887,661.95
February 2037	175,773.16	931,236.67	3,820,834.61
March 2037	170,294.22	911,537.96	3,754,985.51
April 2037	164,978.42	892,214.66	3,690,101.37
May 2037	159,821.06	873,259.97	3,626,169.08
June 2037	154,817.54	854,667.25	3,563,175.70
July 2037	149,963.41	836,429.95	3,501,108.46
August 2037	145,254.35	818,541.65	3,439,954.76
September 2037	140,686.14	800,996.02	3,379,702.17
October 2037	136,254.72	783,786.87	3,320,338.39
November 2037	131,956.10	766,908.09	3,261,851.33
December 2037	127,786.44	750,353.71	3,204,229.01
January 2038	123,741.98	734,117.82	3,147,459.65
February 2038	119,819.09	718,194.66	3,091,531.58
March 2038	116,014.22	702,578.54	3,036,433.32
April 2038	112,323.95	687,263.88	2,982,153.52
May 2038	108,744.94	672,245.21	2,928,680.98
June 2038	105,273.94	657,517.13	2,876,004.64
July 2038	101,907.80	643,074.35	2,824,113.62
August 2038	98,643.46	628,911.68	2,772,997.13
September 2038	95,477.95	615,024.01	2,722,644.56
October 2038	92,408.38	601,406.33	2,673,045.42
November 2038	89,431.95	588,053.69	2,624,189.37
December 2038	86,545.92	574,961.27	2,576,066.20
January 2039	83,747.64	562,124.30	2,528,665.83
January 2007	0.5,7 17.01	JUI, 1 II 1.JU	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Distribution Date		Class WF	Classes QC, QF and QY (in the aggregate)	Classes HP and PY (in the aggregate)
February 2039	\$	81,034.56	\$ 549,538.12	\$ 2,481,978.32
March 2039	Ψ	78,404.16	537,198.13	2,435,993.84
April 2039		75,854.03	525,099.82	2,390,702.72
May 2039		73,381.79	513,238.77	2,346,095.40
June 2039		70,985.17	501,610.62	2,302,162.44
July 2039		68,661.94	490,211.09	2,258,894.54
August 2039		66,409.93	479,036.00	2,216,282.51
September 2039		64,227.05	468,081.20	2,174,317.28
October 2039		62,111.26	457,342.66	2,132,989.91
November 2039		60,060.58	446,816.38	2,092,291.57
December 2039		58,073.09	436,498.47	2,052,213.54
January 2040		56,146.91	426,385.07	2,012,747.23
February 2040		54,280.24	416,472.42	1,973,884.16
March 2040		52,471.31	406,756.82	1,935,615.94
April 2040		50,718.41	397,234.61	1,897,934.33
May 2040		49,019.88	387,902.22	1,860,831.17
June 2040		47,374.11	378,756.14	1,824,298.40
July 2040		45,779.52	369,792.93	1,788,328.09
August 2040		44,234.60	361,009.19	1,752,912.41
September 2040		42,737.86	352,401.59	1,718,043.63
October 2040		42,737.80	343,966.87	1,683,714.11
November 2040		39,883.26	335,701.82	1,649,916.34
December 2040		38,522.64	327,603.27	1,616,642.87
		37,204.71	319,668.13	1,583,886.38
January 2041		35,928.19	311,893.36	1,551,639.64
February 2041		34,691.85	304,275.98	1,519,895.51
		· · · · · · · · · · · · · · · · · · ·	296,813.03	1,488,646.95
April 2041		33,494.48 32,334.91	289,501.65	1,457,887.00
May 2041		31,212.01	282,339.00	1,427,608.82
June 2041		30,124.67	275,322.30	1,397,805.63
July 2041		29,071.83	268,448.81	1,368,470.76
August 2041		,	261,715.86	1,339,597.62
September 2041		28,052.45	255,120.81	1,311,179.71
October 2041		27,065.52	,	
November 2041		26,110.07	248,661.08	1,283,210.62
December 2041		25,185.13	242,334.11	1,255,684.02
January 2042		24,289.79	236,137.42	1,228,593.66
February 2042		23,423.15	230,068.56	1,201,933.39
March 2042		22,584.35	224,125.11	1,175,697.12
April 2042		21,772.54	218,304.72	1,149,878.85
May 2042		20,986.90	212,605.06	1,124,472.67
June 2042		20,226.63	207,023.86	1,099,472.75
July 2042		19,490.97	201,558.86	1,074,873.31
August 2042		18,779.15	196,207.89	1,050,668.67
September 2042		18,090.47	190,968.77	1,026,853.22
October 2042		17,424.21	185,839.38	1,003,421.44
November 2042		16,779.68	180,817.65	980,367.86
December 2042		16,156.22	175,901.53	957,687.09

Distribution Date		Class WF	Classes QC, QF and QY (in the aggregate)	Classes HP and PY (in the aggregate)
January 2043	\$	15,553.18	\$ 171,089.01	\$ 935,373.82
February 2043	7	14,969.94	166,378.12	913,422.81
March 2043		14,405.89	161,766.92	891,828.88
April 2043		13,860.44	157,253.52	870,586.94
May 2043		13,333.02	152,836.04	849,691.93
June 2043		12,823.07	148,512.65	829,138.90
July 2043		12,330.05	144,281.56	808,922.94
August 2043		11,853.44	140,140.99	789,039.23
September 2043		11,392.73	136,089.22	769,482.98
October 2043		10,947.42	132,124.53	750,249.49
November 2043		10,517.05	128,245.25	731,334.12
December 2043		10,101.14	124,449.75	712,732.29
January 2044		9,699.24	120,736.40	694,439.47
February 2044		9,310.93	117,103.63	676,451.22
March 2044		8,935.77	113,549.87	658,763.13
April 2044		8,573.35	110,073.61	641,370.86
May 2044		8,223.28	106,673.35	624,270.14
June 2044		7,885.16	103,347.61	607,456.73
July 2044		7,558.63	100,094.95	590,926.48
August 2044		7,243.31	96,913.94	574,675.28
September 2044		6,938.86	93,803.21	558,699.06
October 2044		6,644.93	90,761.37	542,993.84
November 2044		6,361.19	87,787.10	527,555.66
December 2044		6,087.31	84,879.06	512,380.64
January 2045		5,822.99	82,035.98	497,464.94
February 2045		5,567.92	79,256.57	482,804.77
March 2045		5,321.81	76,539.59	468,396.39
April 2045		5,084.37	73,883.82	454,236.13
May 2045		4,855.32	71,288.05	440,320.33
June 2045		4,634.40	68,751.11	426,645.43
July 2045		4,421.35	66,271.84	413,207.88
August 2045		4,215.90	63,849.11	400,004.20
September 2045		4,017.83	61,481.79	387,030.94
October 2045		3,826.89	59,168.80	374,284.71
November 2045		3,642.85	56,909.05	361,762.16
December 2045		3,465.49	54,701.50	349,459.99
January 2046		3,294.59	52,545.10	337,374.94
February 2046		3,129.94	50,438.85	325,503.80
March 2046		2,971.34	48,381.74	313,843.40
April 2046		2,818.59	46,372.79	302,390.62
May 2046		2,671.51	44,411.05	291,142.36
June 2046		2,529.89	42,495.57	280,095.60
July 2046		2,393.58	40,625.42	269,247.33
August 2046		2,262.38	38,799.70	258,594.59
September 2046		2,136.14	37,017.52	248,134.46
October 2046		2,014.69	35,277.99	237,864.08
November 2046		1,897.87	33,580.26	227,780.59

Distribution Date	 Class WF	Classes QC, QF and QY the aggregate)	sses HP and PY the aggregate)
December 2046	\$ 1,785.53	\$ 31,923.50	\$ 217,881.20
January 2047	1,677.52	30,306.86	208,163.16
February 2047	1,573.69	28,729.54	198,623.73
March 2047	1,473.90	27,190.74	189,260.23
April 2047	1,378.03	25,689.68	180,070.02
May 2047	1,285.93	24,225.59	171,050.48
June 2047	1,197.49	22,797.73	162,199.03
July 2047	1,112.57	21,405.34	153,513.14
August 2047	1,031.06	20,047.71	144,990.30
September 2047	952.84	18,724.13	136,628.04
October 2047	877.81	17,433.89	128,423.93
November 2047	805.84	16,176.31	120,375.55
December 2047	736.85	14,950.73	112,480.55
January 2048	670.72	13,756.47	104,736.58
February 2048	607.35	12,592.90	97,141.34
March 2048	546.66	11,459.37	89,692.55
April 2048	488.55	10,355.27	82,387.99
May 2048	432.92	9,279.99	75,225.43
June 2048	379.70	8,232.92	68,202.70
July 2048	328.80	7,213.47	61,317.64
August 2048	280.14	6,221.08	54,568.15
September 2048	233.63	5,255.17	47,952.13
October 2048	189.21	4,315.19	41,467.52
November 2048	146.79	3,400.59	35,112.29
December 2048	106.32	2,510.84	28,884.43
January 2049	67.71	1,645.41	22,781.98
February 2049	30.90	803.80	16,802.97
March 2049	0.00	0.00	10,945.51
April 2049	0.00	0.00	5,207.68
May 2049 and thereafter	0.00	0.00	0.00

## **Underlying Certificates**

	Ginnie Mae I or II	=	П	П	П	П	П	п
Weighted Average Loan Age of	Mortgage Loans (in months)(3)	3	107	(2)	(2)	86	110	99
Remaining Term to Maturity of	Mortgage Loans (in months)(3)	351	245	(2)	(2)	253	242	288
Approximate Weighted Average	Coupon of Mortgage Loans(3)	4.526%	4.826	(2)	(2)	4.500	5.000	4.878
	Percentage of Class in Trust	22.6300000000%	100.0000000000	5.8110916648	100.0000000000	65.1891391556	100,0000000000	100.00000000000
	Principal Balance in Trust	\$ 22,517,675	7,208,882	3,510,937	9,632,000	12,716,975	9,364,262	123,649,213
	Underlying Certificate Factor(2)	0.99503649	0.24660507	0.82610281	1.00000000	0.24252991	0.29226705	0.96502493
Original	Principal Balance of Class	\$100,000,000	29,232,499	73,136,000	9,632,000	80,434,667	32,040,088	128,130,590
	Principal Type(1)	PACI	SC/PAC/AD	SC/PAC	SC/PAC	PAC/AD	SC/PT	SC/PT
	Final Distribution Date	December 2048	September 2040	September 2046	September 2046	September 2042	June 2043	February 2048
	Interest Type(1)	FIX	HX	HX	HX	HX	HX	FIX
	Interest Rate	3.00%	2.50	2.50	2.50	2.75	2.75	3.00
	CUSIP Number	38381VH45	38378YBY4	38380WZN2	38380WZP7	38378VDE2	38378PR83	38381VP79
	Issue Date	May 30, 2019	November 27, 2013	May 30, 2018	May 30, 2018	July 30, 2013	January 30, 2014	May 30, 2019
	Class	KA	EQ(4)	EB(5)	EL(5)	СВ	)B(0)	A(7)(8)
	Series	2019-059	2013-167	2018-076	2018-076	2013-098	2014-006	2019-059
	Issuer	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae
Trust	Asset Group or Subgroup	2	3A	3A	3A	3B	3C	œ

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

Underlying Certificate Factors are as of July 2019. 38

Based on information as of July 2019.

Ginnie Mae 2013-167 Class EQ is backed by a previously issued REMIC certificate, Class GQ from Ginnie Mae 2010-117. 40

Ginnie Mae 2018-076 Classes EB and EL are backed by a previously issued REMIC certificate, Class DA from Ginnie Mae 2016-141, which is backed by the Ginnie Mae 2016-141 Subgroup 2A and Subgroup 2B Trust Assets. These Trust Assets are backed, directly or indirectly, by certain mortgage loans whose approximate weighted characteristics are as follows:

Approximate Weighted Average Loan Age of Mortgage Loans (in months) (3)	39
Approximate Weighted Average Remaining Term to Maturity of Mortgage Loans (in months) (3)	317
Approximate Weighted Average Coupon of Mortgage Loans(3)	4.407% 4.394
Trust Asset Subgroup	Subgroup 2A Trust Assets Subgroup 2B Trust Assets
Series 	2016-141 2016-141

Ginnie Mae 2014-006 Class JB is backed by a previously issued MX certificate, Class EW from Ginnie Mae 2013-169.

MX Class.

Ginnie Mae 2019-059 Class A is backed by previously issued MX certificates, Classes CG and CI from Ginnie Mae 2018-027. © C ®





\$1,099,567,113

**Government National Mortgage Association** 

## **GINNIE MAE®**

Guaranteed REMIC
Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2019-085

OFFERING CIRCULAR SUPPLEMENT July 23, 2019

CREDIT SUISSE
GREAT PACIFIC SECURITIES