

\$1,652,427,579
Government National Mortgage Association
GINNIE MAE[®]
Guaranteed REMIC Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2020-133

The Securities

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

The Ginnie Mae Guaranty

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

The Trust and its Assets

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

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

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

The Sponsor and the Co-Sponsor will offer the securities from time to time in negotiated transactions at varying prices. We expect the closing date to be September 30, 2020.

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 “exempt 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						
JA	\$ 50,000,000	1.50%	PT	FIX	38382JZX7	September 2050
JB	50,000,000	1.55	PT	FIX	38382JZY5	September 2050
JC	20,000,000	1.60	PT	FIX	38382JZZ2	September 2050
JL	61,200,000	2.50	NTL(PT)	FIX/IO	38382JA22	September 2050
JL	25,000,000	1.00	PT	FIX	38382JA30	September 2050
Security Group 2						
BT	63,393,822	1.00	PT	FIX	38382JA48	September 2050
F	43,650,428	(5)	PT	FLT	38382JA55	September 2050
PA	67,219,746	1.50	PAC/AD	FIX	38382JA63	September 2050
PZ	12,291,239	1.50	SUP	FIX/Z	38382JA71	September 2050
S	43,650,428	(5)	NTL(PT)	INV/IO	38382JA89	September 2050
Security Group 3						
AF	48,426,531	(5)	SC/PT	FLT	38382JA97	October 2049
IA	48,426,531	(5)	NTL(SC/PT)	INV/IO	38382JB21	October 2049
Security Group 4						
ID	39,641,076	4.00	NTL(SC/PT)	FIX/IO	38382JB39	September 2047
Security Group 5						
FA	17,491,222	(5)	SC/PT	WAC/DLY	38382JB47	February 2049
Security Group 6						
IJ(1)	13,092,817	4.50	NTL(SC/PT)	FIX/IO	38382JB54	August 2040
JN(1)	15,711,381	0.75	SC/PT	FIX	38382JB62	August 2040
Security Group 7						
H(1)	58,774,457	2.00	SC/PT	FIX	38382JB70	June 2049
Security Group 8						
CF	79,765,231	(5)	PT	FLT	38382JB88	September 2050
CS	79,765,231	(5)	NTL(PT)	INV/IO	38382JB96	September 2050
CT	139,589,155	1.00	PT	FIX	38382JC20	September 2050
Security Group 9						
DF	144,609,169	(5)	PT	FLT	38382JC38	September 2050
DS	144,609,169	(5)	NTL(PT)	INV/IO	38382JC46	September 2050
DT	253,066,048	1.00	PT	FIX	38382JC53	September 2050
Security Group 10						
AI(1)	3,927,274	4.00	NTL(SC/PT)	FIX/IO	38382JC61	May 2050
CI(1)	3,565,612	4.00	NTL(SC/PT)	FIX/IO	38382JC79	December 2049
LI	1,026,122	2.25	NTL(SC/PT)	FIX/IO	38382JC87	April 2050
LO(1)	1,026,122	0.00	SC/PT	PO	38382JC95	April 2050
MI	4,079,247	1.25	NTL(SC/PT)	FIX/IO	38382JD29	June 2050
MO(1)	4,079,247	0.00	SC/PT	PO	38382JD37	June 2050
Security Group 11						
CA(1)	66,015,042	3.00	PT	FIX	38382JD45	September 2050
Security Group 12						
AH(1)	17,039,498	0.75	SC/PT	FIX	38382JD52	May 2040
HI(1)	16,092,859	4.50	NTL(SC/PT)	FIX/IO	38382JD60	May 2040
Security Group 13						
HA	13,114,239	3.50	PAC/AD	FIX	38382JD78	September 2050
HL	22,302	3.50	PAC/AD	FIX	38382JD86	September 2050
HZ	1,341,729	3.50	SUP	FIX/Z	38382JD94	September 2050
Security Group 14						
GA	35,000,000	1.00	PAC/AD	FIX	38382JE28	September 2050
GI	27,296,926	2.50	NTL(PT)	FIX/IO	38382JE36	September 2050
GL	76,283	1.00	PAC/AD	FIX	38382JE44	September 2050
GZ	10,418,595	1.00	SUP	FIX/Z	38382JE51	September 2050
Security Group 15						
EA	43,596,927	1.00	PAC/AD	FIX	38382JE69	September 2050
EI	33,897,659	3.00	NTL(PT)	FIX/IO	38382JE77	September 2050
EL	132,884	1.00	PAC/AD	FIX	38382JE85	September 2050
EZ	7,116,678	1.00	SUP	FIX/Z	38382JE93	September 2050

(Cover continued on next page)

Citigroup

Academy Securities

The date of this Offering Circular Supplement is September 24, 2020.

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 16						
PD(1)	\$ 23,607,287	3.00%	PAC/AD	FIX	38382JF27	July 2049
PL(1)	1,337,000	3.00	PAC/AD	FIX	38382JF35	April 2050
PY(1)	868,359	3.00	PAC/AD	FIX	38382JF43	September 2050
ZP	4,187,354	3.00	SUP	FIX/Z	38382JF50	September 2050
Security Group 17						
FN	41,331,974	(5)	PT	FLT	38382JF68	September 2050
IM	20,761,128	3.50	NTL(PAC/AD)	FIX/IO	38382JF76	September 2050
MA	72,183,000	1.00	PAC/AD	FIX	38382JF84	August 2050
MS(1)	23,072,421	(5)	NTL(PT)	INV/IO	38382JF92	September 2050
MZ	10,000,000	2.00	SUP	FIX/Z	38382JG26	September 2050
SM(1)	18,259,553	(5)	NTL(PT)	INV/IO	38382JG34	September 2050
ZM	480,950	1.00	PAC/AD	FIX/Z	38382JG42	September 2050
Security Group 18						
BI(1)	5,000,000	3.00	NTL(PAC/AD)	FIX/IO	38382JG59	August 2050
EF(1)	7,176,324	(5)	PT	FLT	38382JG67	September 2050
ES(1)	7,176,324	(5)	NTL(PT)	INV/IO	38382JG75	September 2050
FE(1)	7,949,675	(5)	PT	FLT	38382JG83	September 2050
KB	30,000,000	1.00	PAC/AD	FIX	38382JG91	August 2050
SE(1)	7,949,675	(5)	NTL(PT)	INV/IO	38382JH25	September 2050
ZB(1)	5,143,000	1.50	SUP	FIX/Z	38382JH33	September 2050
ZK	151,000	1.50	PAC/AD	FIX/Z	38382JH41	September 2050
Security Group 19						
FL(1)	12,769,304	(5)	PT	FLT	38382JH58	September 2050
IQ(1)	8,333,333	3.00	NTL(PAC/AD)	FIX/IO	38382JH66	September 2050
KA	50,000,000	1.00	PAC/AD	FIX	38382JH74	September 2050
KZ	82,000	1.50	PAC/AD	FIX/Z	38382JH82	September 2050
LF(1)	11,527,095	(5)	PT	FLT	38382JH90	September 2050
LS(1)	11,527,095	(5)	NTL(PT)	INV/IO	38382JJ23	September 2050
SL(1)	12,769,304	(5)	NTL(PT)	INV/IO	38382JJ31	September 2050
ZA(1)	6,609,600	1.50	SUP	FIX/Z	38382JJ49	September 2050
Security Group 20						
KI	25,308,788	3.00	NTL(PT)	FIX/IO	38382JJ56	September 2050
KT	75,926,365	2.00	PT	FIX	38382JJ64	September 2050
Security Group 21						
A	3,129,317	(5)	PT	WAC/DLY	38382JJ72	May 2050
Residual						
RR	0	0.00	NPR	NPR	38382JJ80	September 2050

- (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 3, 4, 5, 6, 7, 10 and 12 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> (“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

	<u>Page</u>		<u>Page</u>
Terms Sheet	S-3	ERISA Matters	S-58
Risk Factors	S-14	Legal Investment Considerations	S-59
The Trust Assets	S-20	Plan of Distribution	S-59
Ginnie Mae Guaranty	S-22	Increase in Size	S-59
Description of the Securities	S-22	Legal Matters	S-59
Yield, Maturity and Prepayment		Schedule I: Available Combinations	S-I-1
Considerations	S-27	Schedule II: Scheduled Principal	
Certain United States Federal Income Tax		Balances	S-II-1
Consequences	S-56	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: Citigroup Global Markets Inc.

Co-Sponsor: Academy Securities, Inc.

Trustee: U.S. Bank National Association

Tax Administrator: The Trustee

Closing Date: September 30, 2020

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 October 2020.

Trust Assets:

<u>Trust Asset Group or Subgroup⁽²⁾</u>	<u>Trust Asset Type</u>	<u>Certificate Rate</u>	<u>Original Term To Maturity (in years)</u>
1	Ginnie Mae II	2.500%	30
2A	Ginnie Mae II	2.500%	30
2B	Ginnie Mae II	2.500%	30
3	Underlying Certificate	(1)	(1)
4	Underlying Certificates	(1)	(1)
5A	Underlying Certificates	(1)	(1)
5B	Underlying Certificates	(1)	(1)
6	Underlying Certificates	(1)	(1)
7	Underlying Certificate	(1)	(1)
8	Ginnie Mae II	3.000%	30
9	Ginnie Mae II	3.000%	30
10A	Underlying Certificate	(1)	(1)
10B	Underlying Certificate	(1)	(1)
10C	Underlying Certificate	(1)	(1)
10D	Underlying Certificate	(1)	(1)
11	Ginnie Mae II	3.000%	30
12	Underlying Certificate	(1)	(1)
13	Ginnie Mae II	3.500%	30
14	Ginnie Mae II	2.500%	30
15	Ginnie Mae II	3.000%	30
16	Ginnie Mae II	3.000%	30
17A	Ginnie Mae II	3.500%	30
17B	Ginnie Mae II	3.500%	30
18A	Ginnie Mae II	3.000%	30
18B	Ginnie Mae II	3.000%	30

<u>Trust Asset Group or Subgroup⁽²⁾</u>	<u>Trust Asset Type</u>	<u>Certificate Rate</u>	<u>Original Term To Maturity (in years)</u>
19A	Ginnie Mae II	3.000%	30
19B	Ginnie Mae II	3.000%	30
20	Ginnie Mae II	3.000%	30
21A	Ginnie Mae II	4.664% ⁽³⁾	15
21B	Ginnie Mae II	5.957% ⁽⁴⁾	30

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

⁽²⁾ The Group 2, 5, 10, 17, 18, 19 and 21 Trust Assets consist of the enumerated subgroups (each, a “Subgroup”).

⁽³⁾ The Ginnie Mae II MBS Certificates that constitute the Subgroup 21A Trust Assets have Certificate Rates ranging from 4.50% to 5.50%. The Weighted Average Certificate Rate shown for the Subgroup 21A Trust Assets represents the weighted average of the Certificate Rates of those Trust Assets, weighted on the basis of the respective principal balances of such Trust MBS as of the Closing Date.

⁽⁴⁾ The Ginnie Mae II MBS Certificates that constitute the Subgroup 21B Trust Assets have Certificate Rates ranging from 5.00% to 8.00%. The Weighted Average Certificate Rate shown for the Subgroup 21B Trust Assets represents the weighted average of the Certificate Rates of those Trust Assets, weighted on the basis of the respective principal balances of such Trust MBS as of the Closing Date.

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 6, 12, 18 and 19, payments on each Group will be based solely on payments on the Trust Asset Group with the same numerical designation.

Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21 Trust Assets⁽¹⁾:

<u>Principal Balance</u>	<u>Weighted Average Remaining Term to Maturity (in months)</u>	<u>Weighted Average Loan Age (in months)</u>	<u>Weighted Average Mortgage Rate⁽²⁾</u>
Group 1 Trust Assets			
\$145,000,000 ⁽³⁾	359	0	2.832%
Subgroup 2A Trust Assets			
\$99,388,731	354	1	2.938%
Subgroup 2B Trust Assets			
\$87,166,504	357	1	2.984%
Group 8 Trust Assets			
\$219,354,386	355	3	3.490%
Group 9 Trust Assets			
\$397,675,217	355	2	3.507%

<u>Principal Balance</u>	<u>Weighted Average Remaining Term to Maturity (in months)</u>	<u>Weighted Average Loan Age (in months)</u>	<u>Weighted Average Mortgage Rate⁽²⁾</u>
Group 11 Trust Assets			
\$66,015,042	353	2	3.517%
Group 13 Trust Assets			
\$14,478,270	354	5	3.976%
Group 14 Trust Assets			
\$45,494,878	358	1	2.974%
Group 15 Trust Assets			
\$50,846,489	358	2	3.492%
Group 16 Trust Assets			
\$30,000,000 ⁽³⁾	357	2	3.404%
Subgroup 17A Trust Assets			
\$54,778,659	356	1	3.882%
Subgroup 17B Trust Assets			
\$69,217,265	356	1	3.882%
Subgroup 18A Trust Assets			
\$26,498,918	359	1	3.474%
Subgroup 18B Trust Assets			
\$23,921,081	359	1	3.474%
Subgroup 19A Trust Assets			
\$42,564,347	359	1	3.474%
Subgroup 19B Trust Assets			
\$38,423,652	359	1	3.474%
Group 20 Trust Assets			
\$75,926,365	351	5	3.512%
Subgroup 21A Trust Assets			
\$54,132	137	41	5.124%
Subgroup 21B Trust Assets			
\$3,075,185 ⁽³⁾	251	104	6.364%

⁽¹⁾ As of September 1, 2020.

⁽²⁾ The Mortgage Loans underlying the Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21 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 1 and 16 and Subgroup 21B Trust Assets may be higher balance Mortgage Loans. See “Risk Factors” in this Supplement.

The actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans underlying the Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21 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 Group 3, 4, 5, 6, 7, 10 and 12 Trust Assets: See Exhibit A to this Supplement for certain information regarding the characteristics of the related Underlying Certificates.

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. Under certain circumstances, Class WA will be subject to mandatory exchange, with no exchange fee, for its related REMIC Securities. See “Description of the Securities — Modification and Exchange” in this Supplement.

Increased Minimum Denomination Classes: Each Class that constitutes a Principal Only or Interest Only Class and Class WA. 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”) or a 30-day compounded average of the Secured Overnight Financing Rate (“SOFR”) (hereinafter referred to as “Compounded SOFR”) as follows:

<u>Class</u>	<u>Interest Rate Formula(1)</u>	<u>Initial Interest Rate(2)</u>	<u>Minimum Rate</u>	<u>Maximum Rate</u>	<u>Delay (in days)</u>	<u>LIBOR or Compounded SOFR for Minimum Interest Rate</u>
Security Group 2						
F	Compounded SOFR + 0.25%	0.33434%	0.25%	6.50%	0	0.00%
S	6.25% – Compounded SOFR	6.16566%	0.00%	6.25%	0	6.25%
Security Group 3						
AF	LIBOR + 0.25%	0.40625%	0.25%	4.00%	0	0.00%
IA	3.75% – LIBOR	0.40000%	0.00%	0.40%	0	3.75%
Security Group 8						
CF	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
CS	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
Security Group 9						
DF	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
DS	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
Security Group 17						
FN	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
MS	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
SM	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
SN	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
Security Group 18						
EF	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
ES	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%

<u>Class</u>	<u>Interest Rate Formula(1)</u>	<u>Initial Interest Rate(2)</u>	<u>Minimum Rate</u>	<u>Maximum Rate</u>	<u>Delay (in days)</u>	<u>LIBOR or Compounded SOFR for Minimum Interest Rate</u>
FE	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
SE	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
Security Group 19						
FL	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
LF	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
LS	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
SL	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
Security Groups 18 and 19						
FP	LIBOR + 0.20%	0.35675%	0.20%	6.50%	0	0.00%
KS	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
SK	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%
SP	6.30% – LIBOR	6.14325%	0.00%	6.30%	0	6.30%

- (1) LIBOR and Compounded SOFR will be established 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.

Each of Classes A, FA and WA is a Weighted Average Coupon Class. Class A will accrue interest during each Accrual Period at a per annum Interest Rate equal to the Weighted Average Certificate Rate (“WACR”) of the Group 21 Trust Assets for that Accrual Period. Class FA will accrue interest during each Accrual Period at a per annum Interest Rate equal to the WACR of the Group 5 Trust Assets for that Accrual Period. Class WA will accrue interest during each Accrual Period at an equivalent annualized rate derived by aggregating the accrued interest on its related REMIC Classes for such Accrual Period expressed as a percentage of its outstanding principal balance for such Accrual Period, subject to certain limitations as set forth under “Description of the Securities — Modification and Exchange” in this Supplement. The approximate initial Interest Rate for each Weighted Average Coupon Class, which will be in effect for the first Accrual Period, is as follows:

<u>Class</u>	<u>Approximate Initial Interest Rate</u>
A	5.93463%
FA	0.55455%
WA	5.87059%

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

SECURITY GROUP 1

The Group 1 Principal Distribution Amount will be allocated, concurrently, to JA, JB, JC and JL, pro rata, until retired

SECURITY GROUP 2

The Subgroup 2A Principal Distribution Amount, the Subgroup 2B Principal Distribution Amount and the PZ Accrual Amount will be allocated as follows:

- The PZ Accrual Amount in the following order of priority:
 1. To PA, until reduced to its Scheduled Principal Balance for that Distribution Date
 2. To PZ, until retired
- The Subgroup 2A Principal Distribution Amount, concurrently, as follows:
 1. 19.9999997988% to F, until retired
 2. 80.0000002012% in the following order of priority:
 - a. To PA, until reduced to its Scheduled Principal Balance for that Distribution Date
 - b. To PZ, until retired
 - c. To PA, without regard to its Scheduled Principal Balance, until retired
- The Subgroup 2B Principal Distribution Amount, concurrently, as follows:
 1. 72.7272737702% to BT, until retired
 2. 27.2727262298% to F, until retired

SECURITY GROUP 3

The Group 3 Principal Distribution Amount will be allocated to AF, until retired

SECURITY GROUP 5

The Group 5 Principal Distribution Amount will be allocated to FA, until retired

SECURITY GROUP 6

The Group 6 Principal Distribution Amount will be allocated to JN, until retired

SECURITY GROUP 7

The Group 7 Principal Distribution Amount will be allocated to H, until retired

SECURITY GROUP 8

The Group 8 Principal Distribution Amount will be allocated, concurrently, to CF and CT, pro rata, until retired

SECURITY GROUP 9

The Group 9 Principal Distribution Amount will be allocated, concurrently, to DF and DT, pro rata, until retired

SECURITY GROUP 10

The Subgroup 10A Principal Distribution Amount and the Subgroup 10B Principal Distribution Amount will be allocated as follows:

- The Subgroup 10A Principal Distribution Amount to MO, until retired
- The Subgroup 10B Principal Distribution Amount to LO, until retired

SECURITY GROUP 11

The Group 11 Principal Distribution Amount will be allocated to CA, until retired

SECURITY GROUP 12

The Group 12 Principal Distribution Amount will be allocated to AH, until retired

SECURITY GROUP 13

The Group 13 Principal Distribution Amount and the HZ Accrual Amount will be allocated in the following order of priority:

1. Sequentially, to HA and HL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
2. To HZ, until retired
3. Sequentially, to HA and HL, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 14

The Group 14 Principal Distribution Amount and the GZ Accrual Amount will be allocated in the following order of priority:

1. Sequentially, to GA and GL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
2. To GZ, until retired
3. Sequentially, to GA and GL, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 15

The Group 15 Principal Distribution Amount and the EZ Accrual Amount will be allocated in the following order of priority:

1. Sequentially, to EA and EL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
2. To EZ, until retired
3. Sequentially, to EA and EL, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 16

The Group 16 Principal Distribution Amount and the ZP Accrual Amount will be allocated in the following order of priority:

1. Sequentially, to PD, PL and PY, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
2. To ZP, until retired
3. Sequentially, to PD, PL and PY, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 17

The Subgroup 17A Principal Distribution Amount, the Subgroup 17B Principal Distribution Amount, the MZ Accrual Amount and the ZM Accrual Amount will be allocated as follows:

- The ZM Accrual Amount, sequentially, to MA and ZM, until retired
- 33.3333333333% of the Subgroup 17A Principal Distribution Amount and 33.333323702% of the Subgroup 17B Principal Distribution Amount to FN, until retired
- The remainder of the Subgroup 17A Principal Distribution Amount, the remainder of the Subgroup 17B Principal Distribution Amount and the MZ Accrual Amount in the following order of priority:
 1. Sequentially, to MA and ZM, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 2. To MZ, until retired
 3. Sequentially, to MA and ZM, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 18

The Subgroup 18A Principal Distribution Amount, the Subgroup 18B Principal Distribution Amount, the ZB Accrual Amount and the ZK Accrual Amount will be allocated as follows:

- The ZK Accrual Amount, sequentially, to KB and ZK, in that order, until retired
- 29.9999984905% of the Subgroup 18A Principal Distribution Amount to FE, until retired
- 29.9999987459% of the Subgroup 18B Principal Distribution Amount to EF, until retired
- The remainder of the Subgroup 18A Principal Distribution Amount, the remainder of the Subgroup 18B Principal Distribution Amount and the ZB Accrual Amount in the following order of priority:
 1. Sequentially, to KB and ZK, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 2. To ZB, until retired
 3. Sequentially, to KB and ZK, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 19

The Subgroup 19A Principal Distribution Amount, the Subgroup 19B Principal Distribution Amount, the KZ Accrual Amount and the ZA Accrual Amount will be allocated as follows:

- The KZ Accrual Amount, sequentially, to KA and KZ, in that order, until retired
- 29.9999997651% of the Subgroup 19A Principal Distribution Amount to FL, until retired
- 29.9999984385% of the Subgroup 19B Principal Distribution Amount to LF, until retired
- The remainder of the Subgroup 19A Principal Distribution Amount, the remainder of the Subgroup 19B Principal Distribution Amount and the ZA Accrual Amount in the following order of priority:
 1. Sequentially, to KA and KZ, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 2. To ZA, until retired
 3. Sequentially, to KA and KZ, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 20

The Group 20 Principal Distribution Amount will be allocated to KT, until retired

SECURITY GROUP 21

The Group 21 Principal Distribution Amount will be allocated to A, 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:

<u>Security Group</u>	<u>Structuring Ranges</u>
PAC Classes	
2 PA	125% PSA through 225% PSA
13 HA and HL (in the aggregate)	310% PSA through 415% PSA
14 GA and GL (in the aggregate)	195% PSA through 400% PSA
15 EA and EL (in the aggregate)	265% PSA through 400% PSA
16 PD, PL and PY (in the aggregate)	144% PSA through 250% PSA
17 MA and ZM (in the aggregate)	373% PSA through 525% PSA
18 KB and ZK (in the aggregate)	275% PSA through 425% PSA
19 KA and KZ (in the aggregate)	205% PSA through 300% PSA

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

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

<u>Class</u>	<u>Original Class Notional Balance</u>	<u>Represents Approximately</u>
Security Group 1		
JJ	\$ 20,000,000	40% of JA (PT Class)
	19,000,000	38% of JB (PT Class)
	7,200,000	36% of JC (PT Class)
	15,000,000	60% of JL (PT Class)
	<u>\$ 61,200,000</u>	
Security Group 2		
S	\$ 43,650,428	100% of F (PT Class)
Security Group 3		
IA	\$ 48,426,531	100% of AF (SC/PT Class)
Security Group 4		
ID	\$ 39,641,076	100% of the Group 4 Trust Assets
Security Group 6		
IJ	\$ 13,092,817	83.3333333333% of JN (SC/PT Class)
Security Group 7		
IH	\$ 23,509,782	40% of H (SC/PT Class)
Security Group 8		
CS	\$ 79,765,231	100% of CF (PT Class)
Security Group 9		
DS	\$144,609,169	100% of DF (PT Class)
Security Group 10		
AI	\$ 3,927,274	100% of the Subgroup 10D Trust Assets
CI	3,565,612	100% of the Subgroup 10C Trust Assets
LI	1,026,122	100% of LO (SC/PT Class)
MI	4,079,247	100% of MO (SC/PT Class)
Security Group 11		
IC	\$ 44,010,028	66.666666667% of CA (PT Class)
Security Group 12		
HI	\$ 16,092,859	94.4444444444% of AH (SC/PT Class)
Security Groups 6 and 12		
DI	\$ 16,092,859	94.4444444444% of AH (SC/PT Class)
	13,092,817	83.3333333333% of JN (SC/PT Class)
	<u>\$ 29,185,676</u>	
TI	\$ 27,292,399	83.3333333333% of AH and JN (in the aggregate) (SC/PT Classes)
Security Group 14		
GI	\$ 27,296,926	60% of the Group 14 Trust Assets
Security Group 15		
EI	\$ 33,897,659	66.666666667% of the Group 15 Trust Assets
Security Group 16		
IP	\$ 16,629,524	66.666666667% of PD and PL (in the aggregate) (PAC/AD Classes)
PI	17,208,430	66.666666667% of PD, PL and PY (in the aggregate) (PAC/AD Classes)

<u>Class</u>	<u>Original Class Notional Balance</u>	<u>Represents Approximately</u>
Security Group 17		
IM	\$ 20,761,128	28.5714285714% of MA and ZM (in the aggregate) (PAC/AD Classes)
MS	23,072,421	33.333323702% of the Subgroup 17B Trust Assets
SM	18,259,553	33.333333333% of the Subgroup 17A Trust Assets
SN	\$ 18,259,553	33.333333333% of the Subgroup 17A Trust Assets
	23,072,421	33.333323702% of the Subgroup 17B Trust Assets
	<u>\$ 41,331,974</u>	
Security Group 18		
BI	\$ 5,000,000	16.666666667% of KB (PAC/AD Class)
ES	7,176,324	100% of EF (PT Class)
SE	7,949,675	100% of FE (PT Class)
Security Group 19		
IQ	\$ 8,333,333	16.666666667% of KA (PAC/AD Class)
LS	11,527,095	100% of LF (PT Class)
SL	12,769,304	100% of FL (PT Class)
Security Groups 18 and 19		
KS	\$ 18,703,419	100% of EF and LF (in the aggregate) (PT Classes)
QI	13,333,333	16.666666667% of KA and KB (in the aggregate) (PAC/AD Classes)
SK	20,718,979	100% of FE and FL (in the aggregate) (PT Classes)
SP	39,422,398	100% of EF, FE, FL and LF (in the aggregate) (PT Classes)
Security Group 20		
KI	\$ 25,308,788	33.333333333% of KT (PT Class)

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

Regular and Residual Classes: Class RR is a Residual Class and represents the Residual Interest of the Issuing REMIC and the Pooling REMIC. All other Classes of REMIC Securities are Regular Classes.

RISK FACTORS

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

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

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

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

A catastrophic weather event, pandemic 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 or 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 (principal only securities, for example) 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 levels of LIBOR and Compounded SOFR, as applicable, will affect the yields on floating rate and inverse floating rate securities and the class FA securities. If LIBOR or Compounded SOFR, as applicable, performs differently from what you expect, the yield on the floating rate and inverse floating rate securities and the class FA securities may be lower than you expect. Lower levels of LIBOR or Compounded SOFR, as applicable, will generally reduce the yield on floating rate securities and the class FA securities; higher levels of LIBOR or Compounded SOFR, as applicable, 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 or Compounded SOFR, as applicable, may affect your yield: generally, the earlier a change, the greater the effect on your yield. It is doubtful that LIBOR or Compounded SOFR will remain constant.

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

Support securities will be more sensitive to rates of principal payments than other securities. If principal prepayments result in principal distributions on any distribution date equal to or less than the amount needed to produce scheduled payments on the PAC classes, the related support class 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 class.

The rate of payments on the underlying certificates will directly affect the rate of payments on the group 3, 4, 5, 6, 7, 10 and 12 securities. The underlying certificates will be sensitive in varying degrees to:

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

As described in the related underlying certificate disclosure documents, the underlying certificates included in trust asset subgroups 10A and 10B are 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 these underlying certificates. Accordingly, these underlying certificates may receive no principal distributions for extended periods of time.

In addition, the principal entitlements of and the reductions in notional balances of certain of the underlying certificates included in trust asset groups 4, 6 and 12 and subgroup 5A 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 group 4 and subgroups 5A and 10C 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 4, 5 and 10 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 or the related classes with which the notional underlying certificates reduce have adhered to any applicable principal balance schedules, whether any related supporting classes remain outstanding or whether the underlying certificates otherwise have performed as originally anticipated. Additional information as to the underlying certificates

may be obtained by performing an analysis of current principal factors of the underlying certificates in light of applicable information contained in the related underlying certificate disclosure documents.

Up to 10% of the mortgage loans underlying the group 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 17, 18, 19 and 20 and subgroup 5B, 10A, 10B, 10D and 21A trust assets and up to 100% of the mortgage loans underlying the group 1 and 16 and subgroup 5A, 10C and 21B 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, the elimination of, and uncertainty with respect to, LIBOR could adversely affect your investment. As discussed under “Description of the Securities — Interest Rate Indices — Determination of LIBOR — ICE LIBOR” in the base offering circular, the end of, or significant changes to, LIBOR may occur after 2021. There can be no prediction of whether or when LIBOR will cease to be available, whether LIBOR will represent the actual rates at which panel banks lend to one another or if one or more alternative reference rates will become a benchmark to replace LIBOR. If LIBOR ceases to be available or changes in a manner that causes regulators or market participants to question LIBOR’s con-

tinued viability as a benchmark, investors in financial instruments linked to LIBOR will likely experience disparate outcomes based on relevant contractual terms and related amendment provisions, market or product type, jurisdiction, and a host of other factors. There can be no assurance that legislative or regulatory actions will dictate what happens if LIBOR ceases to be available or is no longer representative or if such actions will provide a viable alternative or substitute rate for LIBOR. In addition, although the Alternative Reference Rates Committee (“ARRC”) was created to identify best practices for market participants regarding alternative interest rates, there can be no assurance that broadly accepted industry practices will develop either before or after LIBOR ceases to be available or is no longer representative. It is uncertain what effect disparate outcomes, the availability or unavailability of LIBOR or alternative rates, divergent industry practices or any other reforms related to LIBOR that may be adopted in the U.S., U.K. or elsewhere will have on the performance, trading market or value of financial instruments, including securities with an interest rate based on LIBOR (“LIBOR classes”) or on the group 5 securities for which the related trust assets have interest rates that adjust based on LIBOR.

With respect to LIBOR classes, in the event of a benchmark transition event, Ginnie Mae will select a replacement interest rate, including index, methodology, spread or other related adjustment, in accordance with the ARRC Endorsed Terms, as described under “Description of the Securities — Interest Rate Indices — Determination of LIBOR” in the base offering circular. The ARRC Endorsed Terms, however, generally rely on actions to be taken by regulators or the ARRC, and there can be no assurance whether or when those actions will be taken. Further, there can be no assurance that those actions or related events will be sufficient to trigger a change from LIBOR to an alternative rate in all circumstances where LIBOR is no longer representative of market interest rates, or that benchmark transition events for LIBOR classes will align with similar events in the market generally or in other parts of the financial markets, such as the derivatives market.

The ARRC Endorsed Terms provide for various alternative benchmarks based on availability: the first two alternatives involve the secured overnight financing rate (“SOFR”) published by the Federal Reserve Bank of New York, and the last two alternatives are not currently specified. SOFR is a secured, risk-free, overnight rate that is calculated based on different criteria than LIBOR, which is an unsecured rate reflecting counterparty risk. See “Description of the Securities — Interest Rate Indices — Determination of SOFR — General” in the base offering circular for more information about SOFR and the market for securities indexed to SOFR. Accordingly, SOFR and LIBOR may diverge, particularly in times of macroeconomic stress. The Federal Reserve Bank of New York began to publish SOFR in April 2018 and has published historical indicative SOFR and accompanying volumes from August 2014 to March 2018. The Federal Reserve Bank of New York also began to publish 30-, 90- and 180-day compounded averages of SOFR in March 2020. Investors should not rely on historical changes or trends in SOFR as indicative of future changes. Over the lives of LIBOR classes, SOFR may diverge from historical or indicative data.

Term SOFR, which is the first alternative benchmark specified in the ARRC Endorsed Terms, is a prospective term rate based on SOFR currently under development, and there can be no assurance that its development will be completed at any time either before or after the benchmark replacement date with respect to LIBOR. If term SOFR is unavailable as of the benchmark replacement date, as defined in the base offering circular under “Description of the Securities — Interest Rate Indices — Determination of LIBOR” in the base offering circular, the next alternative benchmark is compounded SOFR. As a benchmark replacement for LIBOR, compounded SOFR is a compounded average for which there are multiple methodologies that may also diverge from LIBOR. In addition, the methodology for calculating compounded SOFR as a LIBOR replacement may differ from the methodology for calculating Compounded SOFR for SOFR classes, as described under “Description of the Securities — Interest Distributions — Floating

Rate and Inverse Floating Rate Classes” in this supplement. There can be no assurance that compounded SOFR as a LIBOR replacement will be the same as, or similar to, Compounded SOFR for SOFR classes.

If a benchmark replacement other than term SOFR is chosen because term SOFR is not initially available, term SOFR will become the benchmark replacement if it later becomes available, which could lead to further volatility in the interest rates on LIBOR classes. Moreover, a benchmark replacement adjustment will be applied to compensate for the foregoing effects of any benchmark replacement. However, no assurance can be provided that any benchmark replacement adjustment will be sufficient to produce the economic equivalent of the then-current benchmark, either at the benchmark replacement date or over the lives of LIBOR classes. Additionally, Ginnie Mae cannot anticipate how long it will take to develop the systems and processes necessary to adopt a specific benchmark replacement, which may delay and contribute to uncertainty and volatility surrounding any benchmark transition for LIBOR classes.

Ginnie Mae will have sole discretion with respect to certain elements of the benchmark replacement process, including determining whether a benchmark transition event and its related benchmark replacement date have occurred, determining which benchmark replacement is available, determining the earliest practicable index determination date for using the benchmark replacement, selecting a benchmark replacement in the event term SOFR or compounded SOFR is unavailable, determining benchmark replacement adjustments (if not otherwise determined by applicable governing bodies or authorities) and making benchmark replacement conforming changes (including potential changes affecting the business day convention and index determination date). If Ginnie Mae, in its sole discretion, determines that an alternative rate is not administratively feasible, including as a result of technical, administrative or operational issues, then such alternative rate will be deemed not determinable as of such date. Ginnie Mae may determine an alternative not to

be administratively feasible even if such alternative rate has been adopted by other market participants in similar products. Furthermore, if Ginnie Mae does not select an alternative rate on any date as a result of its determination that an alternative higher on the list of ARRC Endorsed Terms is not administratively feasible as of such date and such higher alternative subsequently becomes administratively feasible (as determined by Ginnie Mae in its sole discretion), then Ginnie Mae may elect to replace the previously selected alternative with such higher alternative. Any of the foregoing determinations will be at the sole discretion of Ginnie Mae and may adversely affect the return on LIBOR classes, the trading market for such classes and the value of such classes. None of the foregoing determinations, or the application thereof to payment calculations on LIBOR classes, will be subject to the approval of security holders.

Notwithstanding the foregoing, Ginnie Mae will select only an alternative rate as to which it and the trustee will receive an opinion of counsel that the selection of such alternative rate will not cause any related Trust REMIC to lose its classification as a REMIC for United States federal income tax purposes.

An investment in the class F and S securities entails risks not associated with an investment in conventional fixed rate securities or securities linked to established market indices. The Federal Reserve Bank of New York began to publish SOFR in April 2018 and compounded averages of SOFR in March 2020. Although the Federal Reserve Bank of New York has also published historical indicative SOFR from August 2014 to March 2018, such pre-publication data necessarily involves assumptions, estimates and approximations. You should not rely on any historical changes or trends in SOFR as an indicator of future changes in SOFR. Daily shifts in SOFR have been, and may in the future be, greater than those in comparable market indices. Because the interest rate applicable to any accrual period for securities with an interest rate based on SOFR will be calculated by reference to the daily rates of SOFR during an approximate 30-day period commencing and

ending before the related accrual period as described under “Description of the Securities — Interest Distributions — Floating Rate and Inverse Floating Rate Classes” in this supplement, the return on and value of the class F and S securities may fluctuate more than debt securities linked to less volatile indices.

SOFR is a relatively new market index, and the class F and S securities will likely have no established trading market when issued, and an established trading market may never develop or, if developed, may not be liquid. Investment in the class F and S securities carries additional pricing volatility, illiquidity and market risk, as discussed in more detail under “Description of the Securities — Interest Rate Indices — Determination of SOFR — General” in the base offering circular.

The interest rates of the class F and S securities will be based on Compounded SOFR unless and until Ginnie Mae determines, in its sole discretion, that term SOFR has become operationally, administratively and technically feasible. If Ginnie Mae makes that determination, Ginnie Mae will convert the interest rates of the class F and S securities from Compounded SOFR to term SOFR. In connection with that conversion, Ginnie Mae may, in its sole discretion and without the consent of any security holders, change the calculation methodology or spread, add or subtract a rate adjustment and make other conforming changes with respect to the class F and S securities, as described under “Description of the Securities — Interest Rate Indices — Replacement Rate Conforming Changes” in the base offering circular. There can be no assurance that the interest rates of the class F and S securities will eventually be based on term SOFR or, if based on term SOFR in the future, that the resulting interest rates will yield the same or similar economic results over the lives of the affected securities relative to the results that would have occurred had the interest rates remained based on Compounded SOFR or that the market value will not decrease due to the move from Compounded SOFR to term SOFR.

All aspects of the conversion will be at the sole discretion of Ginnie Mae, which could lead to

volatility in the interests rates of or adversely affect the return on the class F and S securities, the trading market for such securities and the value of such securities. In addition, the development and implementation of term SOFR is dependent upon the Federal Reserve Bank of New York, so operational or system constraints at the Federal Reserve Bank of New York could adversely affect the ability to transition to term SOFR if it is developed and to implement any conforming changes.

You should consult your own financial and legal advisors about the risks associated with an investment in the class F and S securities and the suitability of investing in the class F and S securities in light of your particular circumstances.

Interest on the class F and S securities will be determined using a replacement rate if SOFR is no longer available, which could adversely affect the value of your investment in the class F and S securities. Because SOFR is published by the Federal Reserve Bank of New York based on data received from other sources, neither Ginnie Mae nor the trustee has any control over its determination, calculation or publication. The Federal Reserve Bank of New York has noted that it may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice. There can be no assurance that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in the class F and S securities.

If SOFR is no longer published or cannot be used, the amount of interest payable on the class F and S securities will be determined using a replacement rate, as described under “Description of the Securities — Interest Rate Indices — Determination of SOFR” in the base offering circular. Ginnie Mae will have the sole discretion to make conforming changes in connection with any replacement rate without the consent of security holders, as described under “Description of the Securities — Interest Rate Indices” in the base offering circular. This could reduce the amount of interest payable on the

class F and S securities, which could adversely affect the return on, value of, and market for, the class F and S securities. Furthermore, there can be no assurance that the characteristics of any replacement rate will be similar to SOFR or that any replacement rate will produce the economic equivalent of SOFR.

The securities may not be a suitable investment for you. The securities, especially the group 3, 4, 5, 6, 7, 10 and 12 securities and, in particular, the support, interest only, principal only, accrual and residual classes and the class WA securities, are not suitable investments for all investors.

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

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

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

been structured to meet the investment requirements of limited categories of investors.

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

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

The actual characteristics of the underlying mortgage loans will affect the weighted average lives and yields of your securities.

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

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

THE TRUST ASSETS

General

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

The Trust MBS (Groups 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21)

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 3, 4, 5, 6, 7, 10 and 12)

The Group 3, 4, 5, 6, 7, 10 and 12 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 or on ginniemae.gov. 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 Mortgage Loans

The Mortgage Loans underlying the Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21 Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under “Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21 Trust Assets” and the general characteristics described in the Base Offering Circular. The Mortgage Loans will consist of first lien, single-family, fixed rate, residential mortgage loans that are insured or guaranteed by the Federal Housing Administration, the United States Department of Veterans Affairs, Rural Development (formerly the Rural Housing Service) or the United States Department of Housing and Urban Development (“HUD”). See *“The Ginnie Mae Certificates — General” in the Base Offering Circular*.

Specific information regarding the characteristics of the Mortgage Loans underlying the Trust MBS is not available. For purposes of this Supplement, certain assumptions have been made regarding the remaining terms to maturity, loan ages and Mortgage Rates of the Mortgage Loans underlying the Trust MBS. However, the actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans will differ from the characteristics assumed, perhaps significantly. This will be the case

even if the weighted average characteristics of the Mortgage Loans are the same as the assumed characteristics. Small differences in the characteristics of the Mortgage Loans can have a significant effect on the Weighted Average Lives and yields of the Securities. See *“Risk Factors” and “Yield, Maturity and Prepayment Considerations” in this Supplement.*

The Trustee Fee

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

GINNIE MAE GUARANTY

The Government National Mortgage Association (“Ginnie Mae”), a wholly-owned corporate instrumentality of the United States of America within HUD, guarantees the timely payment of principal and interest on the Securities. The General Counsel of HUD has provided an opinion to the effect that Ginnie Mae has the authority to guarantee multiclass securities and that Ginnie Mae guaranties will constitute general obligations of the United States, for which the full faith and credit of the United States is pledged. See *“Ginnie Mae Guaranty” in the Base Offering Circular.*

DESCRIPTION OF THE SECURITIES

General

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

Form of Securities

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

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

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

Distributions

Distributions on the Securities will be made on each Distribution Date as specified under “Terms Sheet — Distribution Date” in this Supplement. On each Distribution Date for a Security, or in the case

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

Interest Distributions

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

- Interest will be calculated on the basis of a 360-day year consisting of twelve 30-day months.
- Interest distributable (or accrued in the case of an Accrual Class) on any Class for any Distribution Date will consist of 30 days’ interest on its Class Principal Balance (or Class Notional Balance) as of the related Record Date.
- Investors can calculate the amount of interest to be distributed (or accrued in the case of an Accrual Class) on each Class of Securities for any Distribution Date by using the Class Factors published in the preceding month. See “— Class Factors” below.

Categories of Classes

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

Accrual Periods

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

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

Fixed Rate Classes

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

Floating Rate and Inverse Floating Rate Classes

The Floating Rate and Inverse Floating Rate Classes will bear interest as shown under “Terms Sheet — Interest Rates” in this Supplement. The Interest Rates for the Floating Rate and Inverse Floating Rate Classes (other than Classes F and S, which will be based initially on Compounded SOFR as described below) 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” in the Base Offering Circular. In the case of the Group 3 Securities, the Trustee or its agent will use the same values of LIBOR as are used for the related Underlying Certificates.

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. If LIBOR ceases to be available or is no longer representative, a replacement rate will be selected, as described under “Description of the Securities — Interest Rate Indices — Determination of LIBOR” in the Base Offering Circular.

The Interest Rate for Classes F and S will be based initially on Compounded SOFR with a Corresponding Tenor of 30 days. The Trustee or its agent will determine Simple Compounded SOFR as described under “Description of the Securities — Interest Rate Indices — Determination of SOFR” in the Base Offering Circular.

If at any time, Ginnie Mae determines, in its sole discretion, that Term SOFR has become operationally, administratively and technically feasible, Ginnie Mae may designate Term SOFR and related positive or negative adjustments, spreads or methodology changes as a Replacement Rate for Classes F and S and instruct the Trustee in writing to replace Compounded SOFR with such Replacement Rate for all purposes relating to such Classes in respect of such determination on such date and all determinations on subsequent dates. Ginnie Mae will not do so unless Ginnie Mae and the Trustee receive a Replacement Rate Tax Opinion. In connection with the implementation of Term SOFR as a Replacement Rate for SOFR Classes, Ginnie Mae will have the right to make other Conforming Changes from time to time without the consent of security holders or any other party, as described under “Description of the Securities — Interest Rate Indices” and “— Interest Rate Indices — Determination of SOFR — Conversion of Simple SOFR and Compounded SOFR Classes to Term SOFR” in the Base Offering Circular.

If SOFR ceases to be available or is no longer representative, a replacement rate will be selected, as described under “Description of the Securities — Interest Rate Indices — Determination of SOFR” in the Base Offering Circular.

Weighted Average Coupon Classes

The Weighted Average Coupon Classes will bear interest as shown under “Terms Sheet — Interest Rates” in this Supplement.

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

Accrual Classes

Each of Classes EZ, GZ, HZ, KZ, MZ, PZ, ZA, ZB, ZK, ZM and ZP is an Accrual Class. Interest will accrue on the Accrual Classes and be distributed as described under “Terms Sheet — Accrual Classes” in this Supplement.

Principal Distributions

The Principal Distribution Amount for each Group or Subgroup, as applicable, and each Accrual Amount will be distributed to the Holders entitled thereto as described under “Terms Sheet — Allocation of Principal” in this Supplement. Investors can calculate the amount of principal to be distributed

with respect to any Distribution Date by using the Class Factors published in the preceding and current months. See “— Class Factors” below.

Categories of Classes

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

Notional Classes

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

Residual Securities

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the 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 ginniemae.gov.

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, 3, 5, 6 and 7, 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, 3, 5, 6 and 7, 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.*

In the case of Combination 2, Class WA is a Weighted Average Coupon Class that will accrue interest as described under "Terms Sheet — Interest Rates" in this Supplement. In the event that either (1) the Interest Rate of such MX Class will equal or exceed 1,200% per annum for any Accrual Period or (2) the Class Principal Balance of such MX Class will be reduced to zero on any Distribution Date, the Trustee will, prior to the close of business on the last Business Day of the calendar month immediately preceding the related Distribution Date in the first case, and prior to the related Distribution Date on which the Class Principal Balance of such MX Class would be reduced to zero in the second case, effect a mandatory exchange of such MX Class for its related REMIC Securities. Thereafter, no further exchanges of such REMIC Securities will be permitted for the related Combination.

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 USBGNMATEam@USBank.com or in writing at its Corporate Trust Office at U.S. Bank National Association, One Federal Street, 3rd Floor, Boston, MA 02110, Attention: Ginnie Mae REMIC Program Agency Group 2020-133. The Trustee may be contacted by telephone at (617) 603-6451 and by fax at (617) 603-6644.

A fee will be payable to the Trustee in connection with each exchange equal to $\frac{1}{32}$ of 1% of the outstanding principal balance (or notional balance) of the Securities surrendered for exchange (but not less than \$2,000 or more than \$25,000); provided, however, that no fee will be payable in respect of a mandatory exchange described above; and provided, further, that no fee will be payable in respect of an interest only security unless all securities involved in the exchange are interest only securities. The fee must be paid concurrently with the exchange.

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

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

YIELD, MATURITY AND PREPAYMENT CONSIDERATIONS

General

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

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

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

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

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

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

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

Investors in the Group 3, 4, 5, 6, 7, 10 and 12 Securities are urged to review the discussion under “Risk Factors — The rate of payments on the underlying certificates will directly affect the rate of payments on the group 3, 4, 5, 6, 7, 10 and 12 securities” in this Supplement.

Accretion Directed Classes

Classes EA, EL, GA, GL, HA, HL, KA, KB, KZ, MA, PA, PD, PL, PY, ZK and ZM 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 BI, IM and IQ 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 their 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:

<u>Security Group</u>	<u>Initial Effective Ranges</u>
PAC Classes	
2 PA	125% PSA through 225% PSA
13 HA and HL (in the aggregate)	310% PSA through 415% PSA
14 GA and GL (in the aggregate)	195% PSA through 400% PSA
15 EA and EL (in the aggregate)	265% PSA through 400% PSA
16 PD, PL and PY (in the aggregate)	144% PSA through 250% PSA
17 MA and ZM (in the aggregate)	373% PSA through 525% PSA
18 KB and ZK (in the aggregate)	275% PSA through 425% PSA
19 KA and KZ (in the aggregate)	205% PSA through 300% PSA

- The principal payment stability of the PAC Classes will be supported by the related Support Class.

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

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

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

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

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

Assumability

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

Final Distribution Date

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

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

Modeling Assumptions

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

1. The Mortgage Loans underlying the Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21 Trust Assets have the assumed characteristics shown under “Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21 Trust Assets” in the Terms Sheet, except in the case of information set forth under the 0% PSA Prepayment Assumption Rate, for which each Mortgage Loan underlying a Group 1, 2, 8, 9, 11, 13, 14, 15, 16, 17, 18, 19 or 20 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 October 2020.

4. A termination of the Trust or any Underlying Trust does not occur.

5. The Closing Date for the Securities is September 30, 2020.

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, including that there is no mandatory exchange of any MX Class that is a Weighted Average Coupon Class.

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					
Distribution Date	Classes JA, JB, JC, JI and JL				
	0%	300%	600%	900%	1,200%
Initial Percent	100	100	100	100	100
September 2021	98	94	90	86	82
September 2022	96	82	68	56	44
September 2023	94	66	44	26	13
September 2024	93	53	27	12	4
September 2025	90	42	17	5	1
September 2026	88	34	11	2	0
September 2027	86	27	7	1	0
September 2028	84	21	4	0	0
September 2029	81	17	3	0	0
September 2030	79	13	2	0	0
September 2031	76	10	1	0	0
September 2032	73	8	1	0	0
September 2033	71	6	0	0	0
September 2034	68	5	0	0	0
September 2035	65	4	0	0	0
September 2036	61	3	0	0	0
September 2037	58	2	0	0	0
September 2038	55	2	0	0	0
September 2039	51	1	0	0	0
September 2040	47	1	0	0	0
September 2041	43	1	0	0	0
September 2042	39	1	0	0	0
September 2043	35	0	0	0	0
September 2044	31	0	0	0	0
September 2045	26	0	0	0	0
September 2046	21	0	0	0	0
September 2047	16	0	0	0	0
September 2048	11	0	0	0	0
September 2049	6	0	0	0	0
September 2050	0	0	0	0	0
Weighted Average Life (years)	17.9	5.5	3.3	2.4	2.0

Security Group 2 PSA Prepayment Assumption Rates																				
Distribution Date	Class BT					Classes F and S					Class PA					Class PZ				
	0%	125%	160%	225%	400%	0%	125%	160%	225%	400%	0%	125%	160%	225%	400%	0%	125%	160%	225%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	96	96	95	92	98	96	96	95	92	98	95	95	95	95	102	102	98	92	75
September 2022	96	89	88	84	76	96	89	88	84	76	95	87	87	87	87	103	103	92	71	16
September 2023	94	81	78	72	57	94	81	77	71	57	93	76	76	76	67	105	105	83	44	0
September 2024	93	73	68	60	42	93	73	68	60	42	90	67	67	67	50	106	106	76	25	0
September 2025	90	66	60	51	31	90	66	60	51	31	87	58	58	58	37	108	108	72	12	0
September 2026	88	59	53	43	23	88	59	53	43	23	84	50	50	50	27	109	109	69	4	0
September 2027	86	53	46	36	17	86	53	46	36	17	81	42	42	42	20	111	111	68	0	0
September 2028	84	48	41	30	12	84	47	41	30	12	78	35	35	35	15	113	112	68	0	0
September 2029	81	43	36	25	9	81	42	35	25	9	75	30	30	30	11	114	112	67	0	0
September 2030	79	38	31	21	7	79	38	31	21	7	72	25	25	25	8	116	109	64	0	0
September 2031	76	34	27	17	5	76	34	27	17	5	69	21	21	21	6	118	105	61	0	0
September 2032	73	30	23	15	4	73	30	23	14	4	65	17	17	17	4	120	99	57	0	0
September 2033	71	27	20	12	3	71	26	20	12	3	61	14	14	14	3	122	93	53	0	0
September 2034	68	23	17	10	2	68	23	17	10	2	57	12	12	12	2	123	86	48	0	0
September 2035	65	21	15	8	1	65	20	15	8	1	53	10	10	10	2	125	79	44	0	0
September 2036	61	18	13	7	1	61	18	13	7	1	49	8	8	8	1	127	72	39	0	0
September 2037	58	16	11	5	1	58	16	11	5	1	45	6	6	6	1	129	65	35	0	0
September 2038	55	14	9	4	0	55	13	9	4	0	41	5	5	5	1	131	58	31	0	0
September 2039	51	12	8	4	0	51	11	8	3	0	36	4	4	4	0	133	51	27	0	0
September 2040	47	10	6	3	0	47	10	6	3	0	31	3	3	3	0	135	45	23	0	0
September 2041	43	8	5	2	0	43	8	5	2	0	26	3	3	3	0	137	39	19	0	0
September 2042	39	7	4	2	0	39	7	4	2	0	21	2	2	2	0	139	33	16	0	0
September 2043	35	6	3	1	0	35	6	3	1	0	16	1	1	1	0	141	27	13	0	0
September 2044	31	5	3	1	0	31	4	3	1	0	10	1	1	1	0	143	22	11	0	0
September 2045	26	3	2	1	0	26	3	2	1	0	4	1	1	1	0	145	17	8	0	0
September 2046	21	3	1	0	0	21	3	1	0	0	1	1	1	1	0	134	13	6	0	0
September 2047	16	2	1	0	0	16	2	1	0	0	0	0	0	0	0	103	9	4	0	0
September 2048	11	1	1	0	0	11	1	1	0	0	0	0	0	0	0	70	5	2	0	0
September 2049	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	36	2	1	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	17.9	9.3	8.2	6.6	4.3	17.9	9.3	8.2	6.6	4.3	14.9	7.2	7.2	7.2	4.9	27.9	18.7	13.0	3.0	1.4

**Security Group 3
PSA Prepayment Assumption Rates**

Distribution Date	Classes AF and IA				
	0%	200%	400%	600%	800%
Initial Percent	100	100	100	100	100
September 2021	98	91	84	76	69
September 2022	96	79	63	49	37
September 2023	95	68	47	31	19
September 2024	93	59	35	19	9
September 2025	91	51	26	12	5
September 2026	88	43	19	8	2
September 2027	86	37	14	5	1
September 2028	84	32	11	3	1
September 2029	81	27	8	2	0
September 2030	79	23	6	1	0
September 2031	76	20	4	1	0
September 2032	73	17	3	0	0
September 2033	70	14	2	0	0
September 2034	67	12	2	0	0
September 2035	64	10	1	0	0
September 2036	61	8	1	0	0
September 2037	57	7	1	0	0
September 2038	54	6	0	0	0
September 2039	50	5	0	0	0
September 2040	46	4	0	0	0
September 2041	41	3	0	0	0
September 2042	37	2	0	0	0
September 2043	32	2	0	0	0
September 2044	28	1	0	0	0
September 2045	23	1	0	0	0
September 2046	17	1	0	0	0
September 2047	12	0	0	0	0
September 2048	6	0	0	0	0
September 2049	0	0	0	0	0
September 2050	0	0	0	0	0
Weighted Average Life (years)	17.6	6.7	3.8	2.6	1.9

**Security Group 4
PSA Prepayment Assumption Rates**

Distribution Date	Class ID				
	0%	150%	350%	400%	700%
Initial Percent	100	100	100	100	100
September 2021	97	88	79	77	60
September 2022	95	77	61	58	33
September 2023	92	67	47	42	17
September 2024	89	58	36	30	9
September 2025	86	49	27	22	5
September 2026	82	42	20	16	2
September 2027	79	35	15	11	1
September 2028	75	29	11	8	0
September 2029	71	24	8	5	0
September 2030	68	19	6	3	0
September 2031	63	16	4	2	0
September 2032	59	13	3	1	0
September 2033	55	10	2	1	0
September 2034	50	8	1	1	0
September 2035	45	6	1	0	0
September 2036	40	4	0	0	0
September 2037	35	3	0	0	0
September 2038	30	2	0	0	0
September 2039	24	2	0	0	0
September 2040	20	1	0	0	0
September 2041	16	1	0	0	0
September 2042	11	1	0	0	0
September 2043	7	0	0	0	0
September 2044	2	0	0	0	0
September 2045	0	0	0	0	0
September 2046	0	0	0	0	0
September 2047	0	0	0	0	0
Weighted Average Life (years)	13.4	6.1	3.7	3.3	1.8

**Security Group 5
PSA Prepayment Assumption Rates**

Distribution Date	Class FA				
	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100
September 2021	96	87	79	70	61
September 2022	92	76	62	49	38
September 2023	88	66	48	34	23
September 2024	84	57	38	24	14
September 2025	79	49	29	16	8
September 2026	74	42	23	11	5
September 2027	69	36	17	8	3
September 2028	64	30	13	5	2
September 2029	58	25	10	3	1
September 2030	52	20	7	2	1
September 2031	46	16	5	1	0
September 2032	39	13	4	1	0
September 2033	33	10	2	1	0
September 2034	27	7	2	0	0
September 2035	21	5	1	0	0
September 2036	15	3	1	0	0
September 2037	10	2	0	0	0
September 2038	6	1	0	0	0
September 2039	2	0	0	0	0
September 2040	1	0	0	0	0
September 2041	1	0	0	0	0
September 2042	1	0	0	0	0
September 2043	1	0	0	0	0
September 2044	1	0	0	0	0
September 2045	1	0	0	0	0
September 2046	0	0	0	0	0
September 2047	0	0	0	0	0
September 2048	0	0	0	0	0
September 2049	0	0	0	0	0
Weighted Average					
Life (years)	10.1	6.0	3.9	2.7	2.0

**Security Group 6
PSA Prepayment Assumption Rates**

Distribution Date	Classes IJ and JN				
	0%	200%	400%	600%	800%
Initial Percent	100	100	100	100	100
September 2021	97	85	72	60	48
September 2022	93	71	52	36	22
September 2023	89	60	37	21	9
September 2024	85	50	26	11	5
September 2025	81	41	18	6	2
September 2026	76	33	12	4	1
September 2027	72	27	8	2	1
September 2028	67	22	6	1	0
September 2029	61	17	4	1	0
September 2030	56	13	3	0	0
September 2031	50	10	2	0	0
September 2032	44	8	1	0	0
September 2033	37	6	1	0	0
September 2034	30	4	1	0	0
September 2035	23	3	0	0	0
September 2036	16	2	0	0	0
September 2037	11	1	0	0	0
September 2038	5	1	0	0	0
September 2039	0	0	0	0	0
September 2040	0	0	0	0	0
Weighted Average					
Life (years)	10.4	5.0	2.9	1.9	1.3

**Security Group 7
PSA Prepayment Assumption Rates**

Distribution Date	Classes H, HK, HM, HN, HO, HP, HQ, HR and IH				
	0%	200%	550%	800%	1,100%
Initial Percent	100	100	100	100	100
September 2021	98	89	73	61	46
September 2022	97	77	48	31	16
September 2023	95	67	32	16	5
September 2024	93	58	21	8	2
September 2025	92	50	14	4	1
September 2026	90	43	9	2	0
September 2027	87	37	6	1	0
September 2028	85	32	4	1	0
September 2029	83	27	2	0	0
September 2030	80	23	2	0	0
September 2031	78	20	1	0	0
September 2032	75	17	1	0	0
September 2033	72	14	0	0	0
September 2034	69	12	0	0	0
September 2035	66	10	0	0	0
September 2036	62	8	0	0	0
September 2037	59	7	0	0	0
September 2038	55	6	0	0	0
September 2039	51	5	0	0	0
September 2040	47	4	0	0	0
September 2041	42	3	0	0	0
September 2042	38	2	0	0	0
September 2043	33	2	0	0	0
September 2044	27	1	0	0	0
September 2045	22	1	0	0	0
September 2046	16	1	0	0	0
September 2047	10	0	0	0	0
September 2048	3	0	0	0	0
September 2049	0	0	0	0	0
Weighted Average					
Life (years)	17.8	6.6	2.6	1.7	1.2

**Security Group 8
PSA Prepayment Assumption Rates**

Distribution Date	Classes CF, CS and CT				
	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100
September 2021	98	95	92	90	87
September 2022	97	87	79	71	63
September 2023	95	78	63	51	40
September 2024	93	69	51	36	25
September 2025	91	61	41	26	15
September 2026	89	54	32	18	10
September 2027	87	48	26	13	6
September 2028	85	42	21	9	4
September 2029	83	37	16	6	2
September 2030	80	33	13	5	1
September 2031	78	29	10	3	1
September 2032	75	25	8	2	1
September 2033	72	22	6	2	0
September 2034	69	19	5	1	0
September 2035	66	17	4	1	0
September 2036	63	14	3	1	0
September 2037	60	12	2	0	0
September 2038	56	10	2	0	0
September 2039	53	9	1	0	0
September 2040	49	7	1	0	0
September 2041	45	6	1	0	0
September 2042	41	5	1	0	0
September 2043	36	4	0	0	0
September 2044	32	3	0	0	0
September 2045	27	2	0	0	0
September 2046	22	2	0	0	0
September 2047	17	1	0	0	0
September 2048	12	1	0	0	0
September 2049	6	0	0	0	0
September 2050	0	0	0	0	0
Weighted Average					
Life (years)	18.3	8.5	5.3	3.9	3.1

**Security Group 9
PSA Prepayment Assumption Rates**

Distribution Date	Classes DF, DS and DT				
	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100
September 2021	98	96	93	90	88
September 2022	97	88	80	72	65
September 2023	95	78	64	52	41
September 2024	93	70	51	37	26
September 2025	91	62	41	26	16
September 2026	89	55	33	19	10
September 2027	87	48	26	13	6
September 2028	85	43	21	9	4
September 2029	83	38	17	7	2
September 2030	80	33	13	5	1
September 2031	78	29	10	3	1
September 2032	75	25	8	2	1
September 2033	72	22	6	2	0
September 2034	69	19	5	1	0
September 2035	66	17	4	1	0
September 2036	63	14	3	1	0
September 2037	60	12	2	0	0
September 2038	56	10	2	0	0
September 2039	53	9	1	0	0
September 2040	49	7	1	0	0
September 2041	45	6	1	0	0
September 2042	41	5	1	0	0
September 2043	36	4	0	0	0
September 2044	32	3	0	0	0
September 2045	27	2	0	0	0
September 2046	22	2	0	0	0
September 2047	17	1	0	0	0
September 2048	12	1	0	0	0
September 2049	6	0	0	0	0
September 2050	0	0	0	0	0
Weighted Average Life (years)	18.3	8.5	5.4	3.9	3.1

**Security Group 10
PSA Prepayment Assumption Rates**

Distribution Date	Class AI					Class CI					Classes II and IO				
	0%	200%	400%	600%	800%	0%	200%	400%	600%	800%	0%	200%	400%	600%	800%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	93	88	83	77	98	90	82	74	66	100	100	100	100	100
September 2022	97	82	69	57	45	96	78	62	47	34	100	100	100	100	100
September 2023	95	71	51	36	23	94	67	46	29	17	100	100	100	100	100
September 2024	93	61	38	22	12	92	58	34	18	8	100	100	100	100	100
September 2025	91	53	28	14	6	90	50	25	11	4	100	100	100	100	100
September 2026	89	45	21	9	3	88	42	18	7	2	100	100	100	100	69
September 2027	87	39	16	5	2	86	36	14	4	1	100	100	100	100	35
September 2028	84	33	12	3	1	83	31	10	2	0	100	100	100	90	17
September 2029	82	28	9	2	0	81	26	7	1	0	100	100	100	55	9
September 2030	79	24	6	1	0	78	22	5	1	0	100	100	100	34	4
September 2031	77	21	5	1	0	76	19	4	1	0	100	100	100	21	2
September 2032	74	18	3	0	0	73	16	3	0	0	100	100	97	12	1
September 2033	71	15	2	0	0	70	13	2	0	0	100	100	69	7	1
September 2034	68	12	2	0	0	66	11	1	0	0	100	100	49	4	0
September 2035	65	10	1	0	0	63	9	1	0	0	100	100	34	3	0
September 2036	62	9	1	0	0	60	7	1	0	0	100	100	24	2	0
September 2037	58	7	1	0	0	56	6	0	0	0	100	100	16	1	0
September 2038	55	6	0	0	0	52	5	0	0	0	100	100	11	1	0
September 2039	51	5	0	0	0	48	4	0	0	0	100	100	7	0	0
September 2040	47	4	0	0	0	44	3	0	0	0	100	85	5	0	0
September 2041	43	3	0	0	0	40	2	0	0	0	100	60	3	0	0
September 2042	38	3	0	0	0	35	2	0	0	0	100	39	2	0	0
September 2043	34	2	0	0	0	31	1	0	0	0	100	23	1	0	0
September 2044	29	1	0	0	0	26	1	0	0	0	100	11	0	0	0
September 2045	24	1	0	0	0	20	1	0	0	0	100	5	0	0	0
September 2046	19	1	0	0	0	15	0	0	0	0	74	3	0	0	0
September 2047	14	0	0	0	0	9	0	0	0	0	48	2	0	0	0
September 2048	8	0	0	0	0	4	0	0	0	0	21	1	0	0	0
September 2049	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	17.8	7.0	4.1	2.8	2.2	17.3	6.5	3.7	2.5	1.8	26.9	21.8	14.7	9.8	6.9

**Security Group 10
PSA Prepayment Assumption Rates**

Distribution Date	Classes MI and MO					Class WA				
	0%	200%	400%	600%	800%	0%	200%	400%	600%	800%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2021	100	100	100	100	100	100	100	100	100	100
September 2022	100	100	100	100	100	100	100	100	100	100
September 2023	100	100	100	100	100	100	100	100	100	100
September 2024	100	100	100	100	81	100	100	100	100	85
September 2025	100	100	100	100	40	100	100	100	100	52
September 2026	100	100	100	70	20	100	100	100	76	30
September 2027	100	100	100	43	10	100	100	100	54	15
September 2028	100	100	100	26	5	100	100	100	39	7
September 2029	100	100	74	16	2	100	100	79	24	4
September 2030	100	100	53	9	1	100	100	62	14	2
September 2031	100	100	38	6	1	100	100	50	9	1
September 2032	100	100	26	3	0	100	100	41	5	0
September 2033	100	100	18	2	0	100	100	29	3	0
September 2034	100	99	13	1	0	100	99	20	2	0
September 2035	100	78	9	1	0	100	83	14	1	0
September 2036	100	60	6	0	0	100	68	9	1	0
September 2037	100	45	4	0	0	100	56	6	0	0
September 2038	100	33	2	0	0	100	46	4	0	0
September 2039	100	22	1	0	0	100	38	3	0	0
September 2040	100	14	1	0	0	100	28	2	0	0
September 2041	99	7	0	0	0	99	17	1	0	0
September 2042	34	2	0	0	0	47	9	0	0	0
September 2043	0	0	0	0	0	20	5	0	0	0
September 2044	0	0	0	0	0	20	2	0	0	0
September 2045	0	0	0	0	0	20	1	0	0	0
September 2046	0	0	0	0	0	15	1	0	0	0
September 2047	0	0	0	0	0	10	0	0	0	0
September 2048	0	0	0	0	0	4	0	0	0	0
September 2049	0	0	0	0	0	0	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	21.8	17.1	11.0	7.3	5.1	22.8	18.0	11.7	7.8	5.5

**Security Group 11
PSA Prepayment Assumption Rates**

Distribution Date	Classes CA, CB, CD, CE, CG and IC				
	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100
September 2021	98	96	93	90	88
September 2022	97	88	80	72	65
September 2023	95	78	64	52	41
September 2024	93	70	51	37	26
September 2025	91	62	41	26	16
September 2026	89	55	33	19	10
September 2027	87	48	26	13	6
September 2028	85	43	21	9	4
September 2029	83	38	17	7	2
September 2030	80	33	13	5	1
September 2031	78	29	10	3	1
September 2032	75	25	8	2	1
September 2033	72	22	6	2	0
September 2034	69	19	5	1	0
September 2035	66	17	4	1	0
September 2036	63	14	3	1	0
September 2037	60	12	2	0	0
September 2038	56	10	2	0	0
September 2039	53	9	1	0	0
September 2040	49	7	1	0	0
September 2041	45	6	1	0	0
September 2042	41	5	1	0	0
September 2043	36	4	0	0	0
September 2044	32	3	0	0	0
September 2045	27	2	0	0	0
September 2046	22	2	0	0	0
September 2047	17	1	0	0	0
September 2048	12	1	0	0	0
September 2049	6	0	0	0	0
September 2050	0	0	0	0	0
Weighted Average					
Life (years)	18.3	8.5	5.4	3.9	3.1

**Security Group 12
PSA Prepayment Assumption Rates**

Distribution Date	Classes AH and HI				
	0%	200%	400%	600%	800%
Initial Percent	100	100	100	100	100
September 2021	97	85	74	62	50
September 2022	93	72	54	38	25
September 2023	90	61	39	24	13
September 2024	86	52	29	14	6
September 2025	82	43	21	9	3
September 2026	78	36	15	5	2
September 2027	74	30	11	3	1
September 2028	69	25	8	2	0
September 2029	64	20	5	1	0
September 2030	59	16	4	1	0
September 2031	53	13	3	0	0
September 2032	48	10	2	0	0
September 2033	42	8	1	0	0
September 2034	35	6	1	0	0
September 2035	29	4	0	0	0
September 2036	22	3	0	0	0
September 2037	14	2	0	0	0
September 2038	6	1	0	0	0
September 2039	0	0	0	0	0
September 2040	0	0	0	0	0
Weighted Average					
Life (years)	10.9	5.4	3.2	2.1	1.5

**Security Groups 6 and 12
PSA Prepayment Assumption Rates**

Distribution Date	Classes DA, DB, DC, DE and TI					Class DI				
	0%	200%	400%	600%	800%	0%	200%	400%	600%	800%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2021	97	85	73	61	49	97	85	73	61	49
September 2022	93	72	53	37	24	93	72	53	37	24
September 2023	89	60	38	22	11	90	60	38	22	11
September 2024	86	51	27	13	5	86	51	27	13	6
September 2025	81	42	19	8	3	82	42	19	8	3
September 2026	77	35	13	5	1	77	35	14	5	1
September 2027	73	29	9	3	1	73	29	9	3	1
September 2028	68	23	7	2	0	68	23	7	2	0
September 2029	63	19	5	1	0	63	19	5	1	0
September 2030	57	15	3	1	0	57	15	3	1	0
September 2031	52	11	2	0	0	52	12	2	0	0
September 2032	46	9	2	0	0	46	9	2	0	0
September 2033	39	7	1	0	0	40	7	1	0	0
September 2034	33	5	1	0	0	33	5	1	0	0
September 2035	26	4	0	0	0	26	4	0	0	0
September 2036	19	2	0	0	0	19	2	0	0	0
September 2037	13	1	0	0	0	13	1	0	0	0
September 2038	6	1	0	0	0	6	1	0	0	0
September 2039	0	0	0	0	0	0	0	0	0	0
September 2040	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	10.7	5.2	3.0	2.0	1.4	10.7	5.2	3.0	2.0	1.4

**Security Group 13
PSA Prepayment Assumption Rates**

Distribution Date	Class HA					Class HL					Class HZ				
	0%	310%	340%	415%	700%	0%	310%	340%	415%	700%	0%	310%	340%	415%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	90	90	90	90	100	100	100	100	100	104	104	96	78	7
September 2022	96	73	73	73	59	100	100	100	100	100	107	107	88	39	0
September 2023	94	56	56	56	34	100	100	100	100	100	111	111	81	10	0
September 2024	91	42	42	42	19	100	100	100	100	100	115	115	80	0	0
September 2025	89	30	30	30	11	100	100	100	100	100	119	116	80	0	0
September 2026	87	22	22	22	6	100	100	100	100	100	123	111	75	0	0
September 2027	84	16	16	16	3	100	100	100	100	100	128	101	68	0	0
September 2028	81	12	12	12	2	100	100	100	100	100	132	90	60	0	0
September 2029	78	9	9	9	1	100	100	100	100	100	137	78	51	0	0
September 2030	75	6	6	6	0	100	100	100	100	100	142	67	43	0	0
September 2031	72	4	4	4	0	100	100	100	100	100	147	56	36	0	0
September 2032	69	3	3	3	0	100	100	100	100	100	152	47	29	0	0
September 2033	65	2	2	2	0	100	100	100	100	63	158	39	24	0	0
September 2034	61	2	2	2	0	100	100	100	100	35	163	31	19	0	0
September 2035	57	1	1	1	0	100	100	100	100	19	169	25	15	0	0
September 2036	53	1	1	1	0	100	100	100	100	11	175	20	12	0	0
September 2037	49	0	0	0	0	100	100	100	100	6	181	16	9	0	0
September 2038	45	0	0	0	0	100	100	100	100	3	188	13	7	0	0
September 2039	40	0	0	0	0	100	100	100	100	2	194	10	6	0	0
September 2040	35	0	0	0	0	100	100	100	100	1	201	8	4	0	0
September 2041	30	0	0	0	0	100	85	85	85	0	208	6	3	0	0
September 2042	25	0	0	0	0	100	57	57	57	0	216	4	2	0	0
September 2043	19	0	0	0	0	100	38	38	38	0	223	3	2	0	0
September 2044	13	0	0	0	0	100	25	25	25	0	231	2	1	0	0
September 2045	7	0	0	0	0	100	15	15	15	0	240	2	1	0	0
September 2046	0	0	0	0	0	100	9	9	9	0	248	1	1	0	0
September 2047	0	0	0	0	0	5	5	5	5	0	193	1	0	0	0
September 2048	0	0	0	0	0	2	2	2	2	0	132	0	0	0	0
September 2049	0	0	0	0	0	1	1	1	1	0	68	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	15.6	4.2	4.2	4.2	2.8	26.2	22.9	22.9	22.9	13.9	28.1	11.8	9.4	1.8	0.6

**Security Group 14
PSA Prepayment Assumption Rates**

Distribution Date	Class GA					Class GI					Class GL					Class GZ					
	0%	195%	330%	400%	700%	0%	195%	330%	400%	700%	0%	195%	330%	400%	700%	0%	195%	330%	400%	700%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	97	93	93	93	93	98	95	93	92	87	100	100	100	100	100	101	101	92	88	68	
September 2022	95	81	81	81	80	96	86	79	76	62	100	100	100	100	100	102	102	73	58	0	
September 2023	92	66	66	66	46	94	74	62	57	36	100	100	100	100	100	103	103	51	27	0	
September 2024	89	52	52	52	26	93	64	49	42	20	100	100	100	100	100	104	104	38	9	0	
September 2025	86	40	40	40	15	90	55	38	31	11	100	100	100	100	100	105	105	32	1	0	
September 2026	83	30	30	30	8	88	47	30	23	6	100	100	100	100	100	106	106	29	0	0	
September 2027	80	22	22	22	5	86	40	23	17	4	100	100	100	100	100	107	103	27	0	0	
September 2028	76	16	16	16	2	84	35	18	13	2	100	100	100	100	100	108	97	24	0	0	
September 2029	73	12	12	12	1	81	30	14	9	1	100	100	100	100	100	109	89	21	0	0	
September 2030	69	9	9	9	1	79	25	11	7	1	100	100	100	100	100	111	81	18	0	0	
September 2031	66	6	6	6	0	76	21	8	5	0	100	100	100	100	100	112	72	15	0	0	
September 2032	62	4	4	4	0	73	18	6	4	0	100	100	100	100	100	113	64	12	0	0	
September 2033	58	3	3	3	0	71	15	5	3	0	100	100	100	100	66	114	56	10	0	0	
September 2034	53	2	2	2	0	68	13	4	2	0	100	100	100	100	36	115	48	8	0	0	
September 2035	49	2	2	2	0	65	11	3	1	0	100	100	100	100	20	116	41	7	0	0	
September 2036	45	1	1	1	0	61	9	2	1	0	100	100	100	100	11	117	35	5	0	0	
September 2037	40	1	1	1	0	58	8	2	1	0	100	100	100	100	6	119	30	4	0	0	
September 2038	35	0	0	0	0	55	6	1	0	0	100	100	100	100	3	120	25	3	0	0	
September 2039	30	0	0	0	0	51	5	1	0	0	100	100	100	100	2	121	21	2	0	0	
September 2040	25	0	0	0	0	47	4	1	0	0	100	100	100	100	1	122	17	2	0	0	
September 2041	19	0	0	0	0	43	3	0	0	0	100	100	100	100	0	123	14	1	0	0	
September 2042	14	0	0	0	0	39	3	0	0	0	100	70	70	70	0	125	11	1	0	0	
September 2043	8	0	0	0	0	35	2	0	0	0	100	47	47	47	0	126	9	1	0	0	
September 2044	2	0	0	0	0	31	2	0	0	0	100	31	31	31	0	127	7	1	0	0	
September 2045	0	0	0	0	0	26	1	0	0	0	20	20	20	20	0	113	5	0	0	0	
September 2046	0	0	0	0	0	21	1	0	0	0	12	12	12	12	0	92	4	0	0	0	
September 2047	0	0	0	0	0	16	1	0	0	0	7	7	7	7	0	71	2	0	0	0	
September 2048	0	0	0	0	0	11	0	0	0	0	3	3	3	3	0	48	1	0	0	0	
September 2049	0	0	0	0	0	6	0	0	0	0	1	1	1	1	0	24	1	0	0	0	
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average Life (years)	14.0	4.9	4.9	4.9	3.3	17.9	7.3	5.0	4.4	2.8	24.8	23.4	23.4	23.4	14.0	27.3	14.4	5.3	2.3	1.2	

**Security Group 15
PSA Prepayment Assumption Rates**

Distribution Date	Class EA					Class EI					Class EL					Class EZ				
	0%	265%	300%	400%	600%	0%	265%	300%	400%	600%	0%	265%	300%	400%	600%	0%	265%	300%	400%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	92	92	92	92	98	94	93	91	88	100	100	100	100	100	101	101	97	85	61
September 2022	96	78	78	78	75	97	82	80	75	65	100	100	100	100	100	102	102	89	52	0
September 2023	94	62	62	62	48	95	67	64	56	41	100	100	100	100	100	103	103	81	20	0
September 2024	91	47	47	47	30	93	55	52	41	26	100	100	100	100	100	104	104	76	5	0
September 2025	89	36	36	36	18	91	45	41	31	16	100	100	100	100	100	105	105	75	0	0
September 2026	86	26	26	26	11	89	37	33	23	10	100	100	100	100	100	106	103	73	0	0
September 2027	84	19	19	19	7	87	30	26	17	6	100	100	100	100	100	107	97	67	0	0
September 2028	81	14	14	14	4	85	25	21	12	4	100	100	100	100	100	108	89	61	0	0
September 2029	78	10	10	10	2	83	20	17	9	2	100	100	100	100	100	109	80	53	0	0
September 2030	75	8	8	8	1	80	16	13	7	1	100	100	100	100	100	111	70	46	0	0
September 2031	72	5	5	5	1	78	13	10	5	1	100	100	100	100	100	112	60	39	0	0
September 2032	69	4	4	4	0	75	11	8	4	1	100	100	100	100	100	113	52	33	0	0
September 2033	65	3	3	3	0	72	9	6	3	0	100	100	100	100	100	114	44	27	0	0
September 2034	62	2	2	2	0	69	7	5	2	0	100	100	100	100	81	115	36	23	0	0
September 2035	58	1	1	1	0	66	6	4	1	0	100	100	100	100	49	116	30	18	0	0
September 2036	54	1	1	1	0	63	4	3	1	0	100	100	100	100	30	117	25	15	0	0
September 2037	50	1	1	1	0	60	4	2	1	0	100	100	100	100	18	119	20	12	0	0
September 2038	46	0	0	0	0	56	3	2	1	0	100	100	100	100	11	120	16	9	0	0
September 2039	41	0	0	0	0	53	2	1	0	0	100	100	100	100	6	121	13	7	0	0
September 2040	37	0	0	0	0	49	2	1	0	0	100	96	96	96	4	122	10	6	0	0
September 2041	32	0	0	0	0	45	1	1	0	0	100	67	67	67	2	123	8	4	0	0
September 2042	27	0	0	0	0	41	1	1	0	0	100	46	46	46	1	125	6	3	0	0
September 2043	22	0	0	0	0	36	1	0	0	0	100	31	31	31	1	126	5	2	0	0
September 2044	16	0	0	0	0	32	1	0	0	0	100	20	20	20	0	127	3	2	0	0
September 2045	10	0	0	0	0	27	0	0	0	0	100	13	13	13	0	128	2	1	0	0
September 2046	4	0	0	0	0	22	0	0	0	0	100	8	8	8	0	130	2	1	0	0
September 2047	0	0	0	0	0	17	0	0	0	0	5	5	5	5	0	122	1	1	0	0
September 2048	0	0	0	0	0	12	0	0	0	0	2	2	2	2	0	83	1	0	0	0
September 2049	0	0	0	0	0	6	0	0	0	0	1	1	1	1	0	42	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	15.9	4.6	4.6	4.6	3.4	18.3	5.9	5.4	4.3	3.1	26.8	22.4	22.4	22.4	15.6	28.4	12.9	9.7	2.1	1.1

**Security Group 16
PSA Prepayment Assumption Rates**

Distribution Date	Classes IP, PC, PK, PM, PN and PQ					Classes PB, PE, PG, PH, PI and PJ					Class PD				
	0%	144%	180%	250%	400%	0%	144%	180%	250%	400%	0%	144%	180%	250%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	94	94	94	94	98	94	94	94	94	97	94	94	94	94
September 2022	95	85	85	85	85	95	85	85	85	85	95	84	84	84	84
September 2023	92	73	73	73	64	93	74	74	74	65	92	71	71	71	62
September 2024	90	62	62	62	46	90	63	63	63	48	89	60	60	60	43
September 2025	87	52	52	52	33	87	54	54	54	36	86	50	50	50	30
September 2026	84	43	43	43	24	84	45	45	45	26	83	40	40	40	20
September 2027	80	35	35	35	17	81	38	38	38	20	79	32	32	32	12
September 2028	77	29	29	29	11	78	31	31	31	14	76	25	25	25	6
September 2029	74	23	23	23	7	75	26	26	26	11	72	19	19	19	2
September 2030	70	18	18	18	5	71	21	21	21	8	69	14	14	14	0
September 2031	66	14	14	14	2	68	17	17	17	6	65	9	9	9	0
September 2032	63	11	11	11	1	64	14	14	14	4	60	6	6	6	0
September 2033	59	8	8	8	0	60	11	11	11	3	56	3	3	3	0
September 2034	54	6	6	6	0	56	9	9	9	2	52	1	1	1	0
September 2035	50	4	4	4	0	52	8	8	8	2	47	0	0	0	0
September 2036	45	3	3	3	0	47	6	6	6	1	42	0	0	0	0
September 2037	40	2	2	2	0	42	5	5	5	1	37	0	0	0	0
September 2038	35	1	1	1	0	38	4	4	4	1	32	0	0	0	0
September 2039	30	0	0	0	0	33	3	3	3	0	26	0	0	0	0
September 2040	25	0	0	0	0	27	2	2	2	0	20	0	0	0	0
September 2041	19	0	0	0	0	22	2	2	2	0	14	0	0	0	0
September 2042	13	0	0	0	0	16	1	1	1	0	8	0	0	0	0
September 2043	7	0	0	0	0	10	1	1	1	0	2	0	0	0	0
September 2044	0	0	0	0	0	4	1	1	1	0	0	0	0	0	0
September 2045	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0
September 2046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
September 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
September 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	14.1	6.2	6.2	6.2	4.4	14.4	6.7	6.7	6.7	4.8	13.5	5.6	5.6	5.6	4.0

**Security Group 16
PSA Prepayment Assumption Rates**

Distribution Date	Class PL					Class PY					Class ZP				
	0%	144%	180%	250%	400%	0%	144%	180%	250%	400%	0%	144%	180%	250%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2022	100	100	100	100	100	100	100	100	100	100	100	106	106	92	66
September 2023	100	100	100	100	100	100	100	100	100	100	100	109	109	84	37
September 2024	100	100	100	100	100	100	100	100	100	100	100	113	113	79	18
September 2025	100	100	100	100	100	100	100	100	100	100	100	116	116	76	6
September 2026	100	100	100	100	100	100	100	100	100	100	100	120	120	75	1
September 2027	100	100	100	100	100	100	100	100	100	100	100	123	123	76	0
September 2028	100	100	100	100	100	100	100	100	100	100	100	127	123	75	0
September 2029	100	100	100	100	100	100	100	100	100	100	100	131	121	73	0
September 2030	100	100	100	100	85	100	100	100	100	100	100	135	116	69	0
September 2031	100	100	100	100	45	100	100	100	100	100	100	139	110	65	0
September 2032	100	100	100	100	15	100	100	100	100	100	100	143	103	60	0
September 2033	100	100	100	100	0	100	100	100	100	90	148	96	55	0	
September 2034	100	100	100	100	0	100	100	100	100	65	152	88	49	0	
September 2035	100	80	80	80	0	100	100	100	100	47	157	80	44	0	
September 2036	100	52	52	52	0	100	100	100	100	34	162	72	39	0	
September 2037	100	28	28	28	0	100	100	100	100	24	166	64	34	0	
September 2038	100	9	9	9	0	100	100	100	100	17	171	57	30	0	
September 2039	100	0	0	0	0	100	90	90	90	12	177	49	26	0	
September 2040	100	0	0	0	0	100	71	71	71	9	182	43	22	0	
September 2041	100	0	0	0	0	100	55	55	55	6	188	36	18	0	
September 2042	100	0	0	0	0	100	42	42	42	4	193	31	15	0	
September 2043	100	0	0	0	0	100	32	32	32	3	199	25	12	0	
September 2044	8	0	0	0	0	100	23	23	23	2	205	20	10	0	
September 2045	0	0	0	0	0	17	17	17	17	1	191	16	7	0	
September 2046	0	0	0	0	0	11	11	11	11	1	157	12	5	0	
September 2047	0	0	0	0	0	7	7	7	7	0	121	8	4	0	
September 2048	0	0	0	0	0	4	4	4	4	0	82	5	2	0	
September 2049	0	0	0	0	0	1	1	1	1	0	42	2	1	0	
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average Life (years)	23.7	16.2	16.2	16.2	11.0	24.7	22.1	22.1	22.1	15.7	27.4	17.9	13.4	2.7	1.4

**Security Group 17
PSA Prepayment Assumption Rates**

Distribution Date	Classes FN and SN					Class IM					Class MA					Class MS					
	0%	373%	410%	525%	900%	0%	373%	410%	525%	900%	0%	373%	410%	525%	900%	0%	373%	410%	525%	900%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	99	93	92	90	85	98	91	91	91	91	98	91	91	91	91	99	93	92	90	85	
September 2022	97	78	76	70	54	96	74	74	74	61	96	74	74	74	61	97	78	76	70	54	
September 2023	95	59	56	48	25	94	53	53	53	28	94	53	53	53	28	95	59	56	48	25	
September 2024	94	45	42	32	11	92	36	36	36	13	92	36	36	36	12	94	45	42	32	11	
September 2025	92	34	31	21	5	89	24	24	24	6	89	24	24	24	5	92	34	31	21	5	
September 2026	90	26	23	14	2	87	16	16	16	3	87	16	16	16	2	90	26	23	14	2	
September 2027	88	20	17	10	1	84	11	11	11	1	84	10	10	10	0	88	20	17	10	1	
September 2028	86	15	12	6	0	82	7	7	7	1	81	7	7	7	0	86	15	12	6	0	
September 2029	84	11	9	4	0	79	5	5	5	0	78	4	4	4	0	84	11	9	4	0	
September 2030	81	8	6	3	0	76	3	3	3	0	75	2	2	2	0	81	8	6	3	0	
September 2031	79	6	5	2	0	73	2	2	2	0	72	1	1	1	0	79	6	5	2	0	
September 2032	76	5	3	1	0	69	1	1	1	0	69	1	1	1	0	76	5	3	1	0	
September 2033	74	3	2	1	0	66	1	1	1	0	66	0	0	0	0	74	3	2	1	0	
September 2034	71	3	2	1	0	62	1	1	1	0	62	0	0	0	0	71	3	2	1	0	
September 2035	68	2	1	0	0	59	0	0	0	0	58	0	0	0	0	68	2	1	0	0	
September 2036	65	1	1	0	0	55	0	0	0	0	54	0	0	0	0	65	1	1	0	0	
September 2037	61	1	1	0	0	51	0	0	0	0	50	0	0	0	0	61	1	1	0	0	
September 2038	58	1	0	0	0	46	0	0	0	0	46	0	0	0	0	58	1	0	0	0	
September 2039	54	1	0	0	0	42	0	0	0	0	41	0	0	0	0	54	1	0	0	0	
September 2040	51	0	0	0	0	37	0	0	0	0	36	0	0	0	0	51	0	0	0	0	
September 2041	47	0	0	0	0	32	0	0	0	0	31	0	0	0	0	47	0	0	0	0	
September 2042	42	0	0	0	0	27	0	0	0	0	26	0	0	0	0	42	0	0	0	0	
September 2043	38	0	0	0	0	21	0	0	0	0	21	0	0	0	0	38	0	0	0	0	
September 2044	33	0	0	0	0	16	0	0	0	0	15	0	0	0	0	33	0	0	0	0	
September 2045	28	0	0	0	0	10	0	0	0	0	9	0	0	0	0	28	0	0	0	0	
September 2046	23	0	0	0	0	3	0	0	0	0	3	0	0	0	0	23	0	0	0	0	
September 2047	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	
September 2048	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	
September 2049	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average Life (years)	18.6	4.6	4.3	3.6	2.3	16.0	3.8	3.8	3.8	2.6	15.9	3.7	3.7	3.7	2.5	18.6	4.6	4.3	3.6	2.3	

**Security Group 17
PSA Prepayment Assumption Rates**

Distribution Date	Class MZ					Class SM					Class ZM				
	0%	373%	410%	525%	900%	0%	373%	410%	525%	900%	0%	373%	410%	525%	900%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	102	102	97	83	36	99	93	92	90	85	101	101	101	101	101
September 2022	104	104	89	45	0	97	78	76	70	54	102	102	102	102	102
September 2023	106	106	82	10	0	95	59	56	48	25	103	103	103	103	103
September 2024	108	108	80	0	0	94	45	42	32	11	104	104	104	104	104
September 2025	111	106	76	0	0	92	34	31	21	5	105	105	105	105	105
September 2026	113	96	68	0	0	90	26	23	14	2	106	106	106	106	106
September 2027	115	83	58	0	0	88	20	17	10	1	107	107	107	107	107
September 2028	117	70	48	0	0	86	15	12	6	0	108	108	108	108	78
September 2029	120	57	38	0	0	84	11	9	4	0	109	109	109	109	35
September 2030	122	46	30	0	0	81	8	6	3	0	111	111	111	111	15
September 2031	125	36	24	0	0	79	6	5	2	0	112	112	112	112	7
September 2032	127	29	18	0	0	76	5	3	1	0	113	113	113	113	3
September 2033	130	22	14	0	0	74	3	2	1	0	114	114	114	114	1
September 2034	132	17	10	0	0	71	3	2	1	0	115	90	90	90	1
September 2035	135	13	8	0	0	68	2	1	0	0	116	59	59	59	0
September 2036	138	10	6	0	0	65	1	1	0	0	117	38	38	38	0
September 2037	140	7	4	0	0	61	1	1	0	0	119	25	25	25	0
September 2038	143	5	3	0	0	58	1	0	0	0	120	16	16	16	0
September 2039	146	4	2	0	0	54	1	0	0	0	121	10	10	10	0
September 2040	149	3	2	0	0	51	0	0	0	0	122	6	6	6	0
September 2041	152	2	1	0	0	47	0	0	0	0	123	4	4	4	0
September 2042	155	1	1	0	0	42	0	0	0	0	125	2	2	2	0
September 2043	158	1	1	0	0	38	0	0	0	0	126	2	2	2	0
September 2044	162	1	0	0	0	33	0	0	0	0	127	1	1	1	0
September 2045	165	0	0	0	0	28	0	0	0	0	128	1	1	1	0
September 2046	168	0	0	0	0	23	0	0	0	0	130	0	0	0	0
September 2047	148	0	0	0	0	18	0	0	0	0	0	0	0	0	0
September 2048	101	0	0	0	0	12	0	0	0	0	0	0	0	0	0
September 2049	52	0	0	0	0	6	0	0	0	0	0	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	28.3	10.1	8.1	1.9	0.8	18.6	4.6	4.3	3.6	2.3	26.5	15.8	15.8	15.8	8.8

**Security Group 18
PSA Prepayment Assumption Rates**

Distribution Date	Classes BI and KB					Classes EF and ES					Classes FE and SE				
	0%	275%	310%	425%	700%	0%	275%	310%	425%	700%	0%	275%	310%	425%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	93	93	93	93	98	94	93	92	88	98	94	93	92	88
September 2022	96	79	79	79	73	97	82	80	75	62	97	82	80	75	62
September 2023	93	61	61	61	42	95	68	64	55	36	95	68	64	55	36
September 2024	91	46	46	46	23	93	55	51	40	20	93	55	51	40	20
September 2025	88	34	34	34	13	91	45	41	29	12	91	45	41	29	12
September 2026	86	24	24	24	7	89	37	32	21	7	89	37	32	21	7
September 2027	83	17	17	17	4	87	30	26	15	4	87	30	26	15	4
September 2028	80	12	12	12	2	85	24	20	11	2	85	24	20	11	2
September 2029	77	9	9	9	1	83	19	16	8	1	83	19	16	8	1
September 2030	74	6	6	6	0	80	16	13	6	1	80	16	13	6	1
September 2031	70	4	4	4	0	78	13	10	4	0	78	13	10	4	0
September 2032	67	3	3	3	0	75	10	8	3	0	75	10	8	3	0
September 2033	63	2	2	2	0	72	8	6	2	0	72	8	6	2	0
September 2034	60	1	1	1	0	69	6	5	2	0	69	6	5	2	0
September 2035	56	1	1	1	0	66	5	4	1	0	66	5	4	1	0
September 2036	52	0	0	0	0	63	4	3	1	0	63	4	3	1	0
September 2037	48	0	0	0	0	60	3	2	1	0	60	3	2	1	0
September 2038	43	0	0	0	0	56	3	2	0	0	56	3	2	0	0
September 2039	39	0	0	0	0	53	2	1	0	0	53	2	1	0	0
September 2040	34	0	0	0	0	49	2	1	0	0	49	2	1	0	0
September 2041	29	0	0	0	0	45	1	1	0	0	45	1	1	0	0
September 2042	23	0	0	0	0	41	1	1	0	0	41	1	1	0	0
September 2043	18	0	0	0	0	36	1	0	0	0	36	1	0	0	0
September 2044	12	0	0	0	0	32	0	0	0	0	32	0	0	0	0
September 2045	6	0	0	0	0	27	0	0	0	0	27	0	0	0	0
September 2046	0	0	0	0	0	22	0	0	0	0	22	0	0	0	0
September 2047	0	0	0	0	0	17	0	0	0	0	17	0	0	0	0
September 2048	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0
September 2049	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	15.4	4.4	4.4	4.4	3.1	18.3	5.8	5.3	4.2	2.8	18.3	5.8	5.3	4.2	2.8

**Security Group 18
PSA Prepayment Assumption Rates**

Distribution Date	Class ZB					Class ZK				
	0%	275%	310%	425%	700%	0%	275%	310%	425%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2021	102	102	98	86	58	102	102	102	102	102
September 2022	103	103	91	53	0	103	103	103	103	103
September 2023	105	105	84	20	0	105	105	105	105	105
September 2024	106	106	80	4	0	106	106	106	106	106
September 2025	108	108	79	0	0	108	108	108	108	108
September 2026	109	105	76	0	0	109	109	109	109	109
September 2027	111	98	70	0	0	111	111	111	111	111
September 2028	113	89	63	0	0	113	113	113	113	113
September 2029	114	78	54	0	0	114	114	114	114	114
September 2030	116	68	47	0	0	116	116	116	116	116
September 2031	118	58	39	0	0	118	118	118	118	86
September 2032	120	49	33	0	0	120	120	120	120	48
September 2033	122	41	27	0	0	122	122	122	122	27
September 2034	123	34	22	0	0	123	123	123	123	15
September 2035	125	28	18	0	0	125	125	125	125	8
September 2036	127	23	14	0	0	127	127	127	127	4
September 2037	129	18	11	0	0	129	124	124	124	2
September 2038	131	15	9	0	0	131	87	87	87	1
September 2039	133	12	7	0	0	133	60	60	60	1
September 2040	135	9	5	0	0	135	41	41	41	0
September 2041	137	7	4	0	0	137	28	28	28	0
September 2042	139	5	3	0	0	139	19	19	19	0
September 2043	141	4	2	0	0	141	12	12	12	0
September 2044	143	3	2	0	0	143	8	8	8	0
September 2045	145	2	1	0	0	145	5	5	5	0
September 2046	148	1	1	0	0	148	3	3	3	0
September 2047	117	1	0	0	0	1	1	1	1	0
September 2048	80	1	0	0	0	1	1	1	1	0
September 2049	41	0	0	0	0	0	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	28.1	12.5	9.9	2.1	1.1	26.1	19.5	19.5	19.5	12.2

**Security Group 19
PSA Prepayment Assumption Rates**

Distribution Date	Classes FL and SL					Classes IQ and KA					Class KZ				
	0%	205%	240%	300%	500%	0%	205%	240%	300%	500%	0%	205%	240%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	95	95	94	91	98	94	94	94	94	102	102	102	102	102
September 2022	97	86	84	81	71	96	83	83	83	81	103	103	103	103	103
September 2023	95	74	71	65	49	94	70	70	70	56	105	105	105	105	105
September 2024	93	63	59	52	34	91	57	57	57	38	106	106	106	106	106
September 2025	91	54	49	42	23	89	47	47	47	26	108	108	108	108	108
September 2026	89	46	41	33	16	86	38	38	38	18	109	109	109	109	109
September 2027	87	39	34	27	11	84	30	30	30	12	111	111	111	111	111
September 2028	85	34	28	21	7	81	24	24	24	8	113	113	113	113	113
September 2029	83	29	24	17	5	78	19	19	19	5	114	114	114	114	114
September 2030	80	24	20	13	3	75	15	15	15	4	116	116	116	116	116
September 2031	78	20	16	11	2	72	12	12	12	2	118	118	118	118	118
September 2032	75	17	13	8	2	69	9	9	9	2	120	120	120	120	120
September 2033	72	15	11	7	1	66	7	7	7	1	122	122	122	122	122
September 2034	69	12	9	5	1	62	6	6	6	1	123	123	123	123	123
September 2035	66	10	7	4	0	58	4	4	4	0	125	125	125	125	125
September 2036	63	8	6	3	0	54	3	3	3	0	127	127	127	127	127
September 2037	60	7	5	2	0	50	3	3	3	0	129	129	129	129	129
September 2038	56	6	4	2	0	46	2	2	2	0	131	131	131	131	91
September 2039	53	5	3	1	0	42	1	1	1	0	133	133	133	133	59
September 2040	49	4	2	1	0	37	1	1	1	0	135	135	135	135	38
September 2041	45	3	2	1	0	33	1	1	1	0	137	137	137	137	24
September 2042	41	2	1	1	0	28	0	0	0	0	139	139	139	139	15
September 2043	36	2	1	0	0	22	0	0	0	0	141	141	141	141	10
September 2044	32	1	1	0	0	17	0	0	0	0	143	143	143	143	6
September 2045	27	1	1	0	0	11	0	0	0	0	145	145	145	145	3
September 2046	22	1	0	0	0	5	0	0	0	0	148	98	98	98	2
September 2047	17	1	0	0	0	0	0	0	0	0	61	61	61	61	1
September 2048	12	0	0	0	0	0	0	0	0	0	33	33	33	33	0
September 2049	6	0	0	0	0	0	0	0	0	0	13	13	13	13	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	18.3	7.1	6.4	5.4	3.7	16.0	5.8	5.8	5.8	4.0	27.4	26.9	26.9	26.9	19.4

**Security Group 19
PSA Prepayment Assumption Rates**

Distribution Date	Classes LF and LS					Class ZA				
	0%	205%	240%	300%	500%	0%	205%	240%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2021	98	95	95	94	91	102	102	97	89	64
September 2022	97	86	84	81	71	103	103	88	63	0
September 2023	95	74	71	65	49	105	105	77	32	0
September 2024	93	63	59	52	34	106	106	70	13	0
September 2025	91	54	49	42	23	108	108	67	3	0
September 2026	89	46	41	33	16	109	109	66	0	0
September 2027	87	39	34	27	11	111	109	65	0	0
September 2028	85	34	28	21	7	113	106	62	0	0
September 2029	83	29	24	17	5	114	100	58	0	0
September 2030	80	24	20	13	3	116	93	53	0	0
September 2031	78	20	16	11	2	118	85	48	0	0
September 2032	75	17	13	8	2	120	76	42	0	0
September 2033	72	15	11	7	1	122	68	37	0	0
September 2034	69	12	9	5	1	123	60	32	0	0
September 2035	66	10	7	4	0	125	53	28	0	0
September 2036	63	8	6	3	0	127	46	24	0	0
September 2037	60	7	5	2	0	129	39	20	0	0
September 2038	56	6	4	2	0	131	33	17	0	0
September 2039	53	5	3	1	0	133	28	14	0	0
September 2040	49	4	2	1	0	135	23	11	0	0
September 2041	45	3	2	1	0	137	19	9	0	0
September 2042	41	2	1	1	0	139	16	7	0	0
September 2043	36	2	1	0	0	141	12	6	0	0
September 2044	32	1	1	0	0	143	10	4	0	0
September 2045	27	1	1	0	0	145	7	3	0	0
September 2046	22	1	0	0	0	148	5	2	0	0
September 2047	17	1	0	0	0	145	4	2	0	0
September 2048	12	0	0	0	0	99	2	1	0	0
September 2049	6	0	0	0	0	51	1	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	18.3	7.1	6.4	5.4	3.7	28.5	15.6	10.6	2.5	1.2

**Security Groups 18 and 19
PSA Prepayment Assumption Rates**

Distribution Date	Classes FP and SP								Class KS									
	0%	205%	240%	275%	300%	310%	425%	500%	700%	0%	205%	240%	275%	300%	310%	425%	500%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2021	98	95	95	94	94	93	92	91	88	98	95	95	94	94	93	92	91	88
September 2022	97	86	84	82	81	80	75	71	62	97	86	84	82	81	80	75	71	62
September 2023	95	74	71	68	65	64	55	49	36	95	74	71	68	65	64	55	49	36
September 2024	93	63	59	55	52	51	40	34	20	93	63	59	55	52	51	40	34	20
September 2025	91	54	49	45	42	41	29	23	12	91	54	49	45	42	41	29	23	12
September 2026	89	46	41	37	33	32	21	16	7	89	46	41	37	33	32	21	16	7
September 2027	87	39	34	30	27	26	15	11	4	87	39	34	30	27	26	15	11	4
September 2028	85	34	28	24	21	20	11	7	2	85	34	28	24	21	20	11	7	2
September 2029	83	29	24	19	17	16	8	5	1	83	29	24	19	17	16	8	5	1
September 2030	80	24	20	16	13	13	6	3	1	80	24	20	16	13	13	6	3	1
September 2031	78	20	16	13	11	10	4	2	0	78	20	16	13	11	10	4	2	0
September 2032	75	17	13	10	8	8	3	2	0	75	17	13	10	8	8	3	2	0
September 2033	72	15	11	8	7	6	2	1	0	72	15	11	8	7	6	2	1	0
September 2034	69	12	9	6	5	5	2	1	0	69	12	9	6	5	5	2	1	0
September 2035	66	10	7	5	4	4	1	0	0	66	10	7	5	4	4	1	0	0
September 2036	63	8	6	4	3	3	1	0	0	63	8	6	4	3	3	1	0	0
September 2037	60	7	5	3	2	2	1	0	0	60	7	5	3	2	2	1	0	0
September 2038	56	6	4	3	2	2	0	0	0	56	6	4	3	2	2	0	0	0
September 2039	53	5	3	2	1	1	0	0	0	53	5	3	2	1	1	0	0	0
September 2040	49	4	2	2	1	1	0	0	0	49	4	2	2	1	1	0	0	0
September 2041	45	3	2	1	1	1	0	0	0	45	3	2	1	1	1	0	0	0
September 2042	41	2	1	1	1	1	0	0	0	41	2	1	1	1	1	0	0	0
September 2043	36	2	1	1	0	0	0	0	0	36	2	1	1	0	0	0	0	0
September 2044	32	1	1	0	0	0	0	0	0	32	1	1	0	0	0	0	0	0
September 2045	27	1	1	0	0	0	0	0	0	27	1	1	0	0	0	0	0	0
September 2046	22	1	0	0	0	0	0	0	0	22	1	0	0	0	0	0	0	0
September 2047	17	1	0	0	0	0	0	0	0	17	1	0	0	0	0	0	0	0
September 2048	12	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
September 2049	6	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	18.3	7.1	6.4	5.8	5.4	5.3	4.2	3.7	2.8	18.3	7.1	6.4	5.8	5.4	5.3	4.2	3.7	2.8

**Security Groups 18 and 19
PSA Prepayment Assumption Rates**

Distribution Date	Class QI										Class SK								
	0%	205%	240%	275%	300%	310%	425%	500%	700%	0%	205%	240%	275%	300%	310%	425%	500%	700%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
September 2021	98	94	94	94	94	94	94	94	94	98	95	95	94	94	93	92	91	88	
September 2022	96	83	82	82	82	82	82	80	71	97	86	84	82	81	80	75	71	62	
September 2023	93	69	68	66	66	66	62	57	41	95	74	71	68	65	64	55	49	36	
September 2024	91	57	55	53	53	53	46	39	23	93	63	59	55	52	51	40	34	20	
September 2025	89	46	44	42	42	41	33	26	13	91	54	49	45	42	41	29	23	12	
September 2026	86	37	35	33	33	32	24	18	7	89	46	41	37	33	32	21	16	7	
September 2027	83	29	27	25	25	25	17	12	4	87	39	34	30	27	26	15	11	4	
September 2028	81	22	20	20	20	19	12	8	2	85	34	28	24	21	20	11	7	2	
September 2029	78	17	15	15	15	15	9	5	1	83	29	24	19	17	16	8	5	1	
September 2030	75	12	12	12	12	11	6	4	0	80	24	20	16	13	13	6	3	1	
September 2031	72	9	9	9	9	8	4	2	0	78	20	16	13	11	10	4	2	0	
September 2032	68	7	7	7	7	6	3	1	0	75	17	13	10	8	8	3	2	0	
September 2033	65	5	5	5	5	5	2	1	0	72	15	11	8	7	6	2	1	0	
September 2034	61	4	4	4	4	4	1	0	0	69	12	9	6	5	5	2	1	0	
September 2035	57	3	3	3	3	3	1	0	0	66	10	7	5	4	4	1	0	0	
September 2036	53	2	2	2	2	2	1	0	0	63	8	6	4	3	3	1	0	0	
September 2037	49	2	2	2	2	1	0	0	0	60	7	5	3	2	2	1	0	0	
September 2038	45	1	1	1	1	1	0	0	0	56	6	4	3	2	2	0	0	0	
September 2039	41	1	1	1	1	1	0	0	0	53	5	3	2	1	1	0	0	0	
September 2040	36	1	1	1	1	1	0	0	0	49	4	2	2	1	1	0	0	0	
September 2041	31	0	0	0	0	0	0	0	0	45	3	2	1	1	1	0	0	0	
September 2042	26	0	0	0	0	0	0	0	0	41	2	1	1	1	1	0	0	0	
September 2043	21	0	0	0	0	0	0	0	0	36	2	1	1	0	0	0	0	0	
September 2044	15	0	0	0	0	0	0	0	0	32	1	1	0	0	0	0	0	0	
September 2045	9	0	0	0	0	0	0	0	0	27	1	1	0	0	0	0	0	0	
September 2046	3	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0	0	0	
September 2047	0	0	0	0	0	0	0	0	0	17	1	0	0	0	0	0	0	0	
September 2048	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	
September 2049	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	
September 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average Life (years)	15.7	5.5	5.4	5.3	5.3	5.2	4.5	4.0	3.1	18.3	7.1	6.4	5.8	5.4	5.3	4.2	3.7	2.8	

PSA Prepayment Assumption Rates

Distribution Date	Class UZ								
	0%	205%	240%	275%	300%	310%	425%	500%	700%
Initial Percent	100	100	100	100	100	100	100	100	100
September 2021	102	102	99	97	94	92	79	70	47
September 2022	103	103	95	86	77	73	30	13	0
September 2023	105	105	89	74	57	51	9	0	0
September 2024	106	106	86	67	46	37	2	0	0
September 2025	108	108	85	63	40	35	0	0	0
September 2026	109	109	85	61	37	33	0	0	0
September 2027	111	110	85	57	34	31	0	0	0
September 2028	113	109	84	52	30	27	0	0	0
September 2029	114	106	79	47	27	24	0	0	0
September 2030	116	103	71	41	23	20	0	0	0
September 2031	118	97	63	35	19	17	0	0	0
September 2032	120	86	55	30	16	14	0	0	0
September 2033	122	76	47	26	13	12	0	0	0
September 2034	123	66	40	21	11	10	0	0	0
September 2035	125	57	34	18	9	8	0	0	0
September 2036	127	49	29	15	7	6	0	0	0
September 2037	129	41	24	12	6	5	0	0	0
September 2038	131	35	20	10	4	4	0	0	0
September 2039	133	29	16	8	3	3	0	0	0
September 2040	135	24	13	6	3	2	0	0	0
September 2041	137	20	11	5	2	2	0	0	0
September 2042	139	16	8	4	2	1	0	0	0
September 2043	141	12	6	3	1	1	0	0	0
September 2044	143	10	5	2	1	1	0	0	0
September 2045	145	7	4	1	1	0	0	0	0
September 2046	148	5	3	1	0	0	0	0	0
September 2047	133	3	2	1	0	0	0	0	0
September 2048	91	2	1	0	0	0	0	0	0
September 2049	46	1	0	0	0	0	0	0	0
September 2050	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	28.4	16.2	12.9	8.9	6.1	5.6	1.7	1.3	0.9

**Security Group 20
PSA Prepayment Assumption Rates**

<u>Distribution Date</u>	<u>Classes KI and KT</u>				
	<u>0%</u>	<u>150%</u>	<u>300%</u>	<u>450%</u>	<u>600%</u>
Initial Percent	100	100	100	100	100
September 2021	98	95	91	88	84
September 2022	97	86	77	68	59
September 2023	95	77	61	48	37
September 2024	93	68	49	34	23
September 2025	91	60	39	25	14
September 2026	89	53	31	17	9
September 2027	87	47	25	12	6
September 2028	85	42	20	9	3
September 2029	83	37	16	6	2
September 2030	80	32	13	4	1
September 2031	78	28	10	3	1
September 2032	75	25	8	2	1
September 2033	72	22	6	1	0
September 2034	69	19	5	1	0
September 2035	66	16	4	1	0
September 2036	63	14	3	0	0
September 2037	60	12	2	0	0
September 2038	56	10	2	0	0
September 2039	53	8	1	0	0
September 2040	49	7	1	0	0
September 2041	45	6	1	0	0
September 2042	41	5	1	0	0
September 2043	36	4	0	0	0
September 2044	32	3	0	0	0
September 2045	27	2	0	0	0
September 2046	22	2	0	0	0
September 2047	17	1	0	0	0
September 2048	12	1	0	0	0
September 2049	6	0	0	0	0
September 2050	0	0	0	0	0
Weighted Average Life (years)	18.3	8.3	5.2	3.7	2.9

**Security Group 21
PSA Prepayment Assumption Rates**

<u>Distribution Date</u>	<u>Class A</u>				
	<u>0%</u>	<u>150%</u>	<u>300%</u>	<u>450%</u>	<u>600%</u>
Initial Percent	100	100	100	100	100
September 2021	98	89	80	71	62
September 2022	95	79	64	51	39
September 2023	92	69	51	36	24
September 2024	89	61	40	25	15
September 2025	86	54	32	18	9
September 2026	83	47	25	13	6
September 2027	79	41	20	9	3
September 2028	75	35	15	6	2
September 2029	71	31	12	4	1
September 2030	67	26	9	3	1
September 2031	63	22	7	2	0
September 2032	58	19	5	1	0
September 2033	53	15	4	1	0
September 2034	48	13	3	1	0
September 2035	42	10	2	0	0
September 2036	36	8	1	0	0
September 2037	29	6	1	0	0
September 2038	23	4	1	0	0
September 2039	15	3	0	0	0
September 2040	8	1	0	0	0
September 2041	0	0	0	0	0
September 2042	0	0	0	0	0
September 2043	0	0	0	0	0
September 2044	0	0	0	0	0
September 2045	0	0	0	0	0
September 2046	0	0	0	0	0
September 2047	0	0	0	0	0
September 2048	0	0	0	0	0
September 2049	0	0	0	0	0
September 2050	0	0	0	0	0
Weighted Average Life (years)	12.6	6.8	4.2	2.9	2.1

Yield Considerations

An investor seeking to maximize yield should make a decision whether to invest in any Regular or MX Class based on:

- the anticipated yield of that Class resulting from its purchase price,
- the investor's own projection of Mortgage Loan prepayment rates under a variety of scenarios,
- in the case of the Group 3, 4, 5, 6, 7, 10 and 12 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 or the Class FA Securities, the investor's own projection of levels of LIBOR or Compounded SOFR, as applicable, under a variety of scenarios.

No representation is made regarding Mortgage Loan prepayment rates, Underlying Certificate payment rates, LIBOR levels, Compounded SOFR 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 (especially the Principal Only Classes), slower than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- Investors in the MX Class that is subject to mandatory exchange should consider that differing rates of reduction in the related REMIC Securities may ultimately cause that Class to become a Principal Only Class or to be exchanged for the related REMIC Securities (consisting primarily or exclusively of an Interest Only Class).

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 and Compounded SOFR: Effect on Yields of the Floating Rate and Inverse Floating Rate Classes and the Class FA Securities

Low levels of LIBOR and Compounded SOFR, as applicable, can reduce the yield of the Floating Rate Classes and the Class FA Securities. High levels of LIBOR and Compounded SOFR, as applicable, can reduce the yield of the Inverse Floating Rate Classes. In addition, the Floating Rate Classes will not necessarily benefit from a higher yield at high levels of LIBOR or Compounded SOFR, as applicable, and Class IA may not benefit from particularly low levels of LIBOR because the rate on such Classes is capped at a maximum rate described under "Terms Sheet — Interest Rates."

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

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

Yield Tables

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

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

The yields were calculated by

1. determining the monthly discount rates that, when applied to the applicable assumed streams of cash flows to be paid on the applicable Class, would cause the discounted present value of the assumed streams of cash flows to equal the assumed purchase price of that Class plus accrued interest (in the case of interest-bearing Classes), 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 (other than Class S) for each Accrual Period following the first Accrual Period will be based on the indicated level of LIBOR and the Interest Rate applicable to Class S for each Accrual Period will be based on the indicated level of Compounded SOFR and (2) the purchase price of each Class (expressed as a percentage of Original Class Principal Balance or original Class Notional Balance) plus accrued interest (in the case of interest-bearing Classes) is as indicated in the related table. **The assumed purchase price is not necessarily that at which actual sales will occur.**

SECURITY GROUP 1

Sensitivity of Class JI to Prepayments Assumed Price 7.0%*

PSA Prepayment Assumption Rates				
<u>300%</u>	<u>600%</u>	<u>715%</u>	<u>900%</u>	<u>1,200%</u>
20.6%	5.8%	0.0%	(9.4)%	(24.9)%

SECURITY GROUP 2

Sensitivity of Class S to Prepayments Assumed Price 25.5%*

<u>Compounded SOFR</u>	PSA Prepayment Assumption Rates			
	<u>125%</u>	<u>160%</u>	<u>225%</u>	<u>400%</u>
0.05000%	16.2%	14.4%	11.0%	1.6%
0.08434%	16.0%	14.2%	10.8%	1.5%
3.16717%	1.8%	(0.1)%	(3.7)%	(13.8)%
6.25000% and above	**	**	**	**

SECURITY GROUP 3

Sensitivity of Class IA to Prepayments Assumed Price 0.75%*

<u>LIBOR</u>	PSA Prepayment Assumption Rates			
	<u>200%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>
3.35% and below	44.5%	31.2%	16.9%	1.7%
3.55%	13.8%	0.7%	(13.3)%	(28.4)%
3.75% and above	**	**	**	**

SECURITY GROUP 4

Sensitivity of Class ID to Prepayments Assumed Price 12.5%*

PSA Prepayment Assumption Rates				
<u>150%</u>	<u>350%</u>	<u>400%</u>	<u>412%</u>	<u>700%</u>
17.3%	5.1%	1.1%	0.1%	(26.7)%

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

** Indicates that investors will suffer a loss of virtually all of their investment.

SECURITY GROUP 6

**Sensitivity of Class IJ to Prepayments
Assumed Price 14.0%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>365%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>
13.4%	0.0%	(2.9)%	(20.1)%	(38.5)%

SECURITY GROUP 7

**Sensitivity of Class HO to Prepayments
Assumed Price 98.0%**

PSA Prepayment Assumption Rates			
<u>200%</u>	<u>550%</u>	<u>800%</u>	<u>1,100%</u>
0.3%	0.8%	1.2%	1.7%

**Sensitivity of Class IH to Prepayments
Assumed Price 11.25%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>550%</u>	<u>619%</u>	<u>800%</u>	<u>1,100%</u>
31.8%	5.6%	0.0%	(15.5)%	(44.7)%

SECURITY GROUP 8

**Sensitivity of Class CS to Prepayments
Assumed Price 21.75%***

<u>LIBOR</u>	PSA Prepayment Assumption Rates			
	<u>150%</u>	<u>300%</u>	<u>450%</u>	<u>600%</u>
0.10000%	19.6%	11.5%	3.2%	(5.4)%
0.15675%	19.3%	11.2%	2.9%	(5.8)%
3.22838%	2.9%	(5.6)%	(14.6)%	(23.9)%
6.30000% and above	**	**	**	**

SECURITY GROUP 9

**Sensitivity of Class DS to Prepayments
Assumed Price 21.25%***

<u>LIBOR</u>	PSA Prepayment Assumption Rates			
	<u>150%</u>	<u>300%</u>	<u>450%</u>	<u>600%</u>
0.10000%	20.6%	12.7%	4.6%	(3.7)%
0.15675%	20.3%	12.4%	4.3%	(4.0)%
3.22838%	3.5%	(5.0)%	(13.8)%	(22.9)%
6.30000% and above	**	**	**	**

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

** Indicates that investors will suffer a loss of virtually all of their investment.

SECURITY GROUP 10

**Sensitivity of Class AI to Prepayments
Assumed Price 10.0%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>400%</u>	<u>600%</u>	<u>677%</u>	<u>800%</u>
29.0%	17.3%	5.0%	0.0%	(8.0)%

**Sensitivity of Class CI to Prepayments
Assumed Price 5.0%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>	<u>1,093%</u>
73.7%	59.3%	43.8%	27.1%	0.0%

**Sensitivity of Class LI to Prepayments
Assumed Price 28.0%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>400%</u>	<u>476%</u>	<u>600%</u>	<u>800%</u>
5.7%	2.2%	0.0%	(4.4)%	(14.0)%

**Sensitivity of Class LO to Prepayments
Assumed Price 76.0%**

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>	
1.3%	1.9%	2.8%	4.0%	

**Sensitivity of Class MI to Prepayments
Assumed Price 15.0%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>357%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>
4.3%	0.0%	(1.6)%	(11.1)%	(23.9)%

**Sensitivity of Class MO to Prepayments
Assumed Price 78.0%**

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>	
1.5%	2.3%	3.5%	4.9%	

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

**Sensitivity of Class WA to Prepayments
Assumed Price 92.5%***

PSA Prepayment Assumption Rates			
<u>200%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>
3.0%	2.8%	3.2%	3.8%

SECURITY GROUP 11

**Sensitivity of Class IC to Prepayments
Assumed Price 11.0%***

PSA Prepayment Assumption Rates				
<u>150%</u>	<u>300%</u>	<u>450%</u>	<u>481%</u>	<u>600%</u>
17.9%	9.9%	1.7%	0.0%	(6.7)%

SECURITY GROUP 12

**Sensitivity of Class HI to Prepayments
Assumed Price 14.0%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>398%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>
14.8%	0.0%	(0.1)%	(16.3)%	(34.1)%

SECURITY GROUPS 6 AND 12

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

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>383%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>
14.2%	0.1%	(1.3)%	(17.9)%	(35.9)%

**Sensitivity of Class TI to Prepayments
Assumed Price 14.0%***

PSA Prepayment Assumption Rates				
<u>200%</u>	<u>382%</u>	<u>400%</u>	<u>600%</u>	<u>800%</u>
14.1%	0.0%	(1.4)%	(18.0)%	(36.1)%

SECURITY GROUP 14

**Sensitivity of Class GI to Prepayments
Assumed Price 12.0%***

PSA Prepayment Assumption Rates				
<u>195%</u>	<u>330%</u>	<u>346%</u>	<u>400%</u>	<u>700%</u>
8.2%	0.9%	0.0%	(3.0)%	(20.2)%

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

SECURITY GROUP 15

**Sensitivity of Class EI to Prepayments
Assumed Price 12.5%***

PSA Prepayment Assumption Rates				
<u>265%</u>	<u>300%</u>	<u>400%</u>	<u>410%</u>	<u>600%</u>
8.1%	6.1%	0.6%	0.1%	(10.8)%

SECURITY GROUP 16

**Sensitivity of Class IP to Prepayments
Assumed Price 4.0%***

PSA Prepayment Assumption Rates				
<u>144%</u>	<u>180%</u>	<u>250%</u>	<u>400%</u>	<u>1,863%</u>
71.6%	71.6%	71.6%	68.0%	0.0%

**Sensitivity of Class PI to Prepayments
Assumed Price 4.5%***

PSA Prepayment Assumption Rates				
<u>144%</u>	<u>180%</u>	<u>250%</u>	<u>400%</u>	<u>1,657%</u>
61.7%	61.7%	61.7%	57.9%	0.0%

SECURITY GROUP 17

**Sensitivity of Class IM to Prepayments
Assumed Price 13.0%***

PSA Prepayment Assumption Rates				
<u>373%</u>	<u>410%</u>	<u>525%</u>	<u>529%</u>	<u>900%</u>
0.2%	0.2%	0.2%	0.0%	(19.3)%

**Sensitivity of Class MS to Prepayments
Assumed Price 23.0%***

<u>LIBOR</u>	PSA Prepayment Assumption Rates			
	<u>373%</u>	<u>410%</u>	<u>525%</u>	<u>900%</u>
0.10000%	6.7%	4.7%	(1.5)%	(22.6)%
0.15675%	6.4%	4.4%	(1.8)%	(22.9)%
3.22838%	(10.2)%	(12.4)%	(19.2)%	(43.0)%
6.30000% and above	**	**	**	**

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

** Indicates that investors will suffer a loss of virtually all of their investment.

**Sensitivity of Class SM to Prepayments
Assumed Price 25.3%***

<u>LIBOR</u>	<u>PSA Prepayment Assumption Rates</u>			
	<u>373%</u>	<u>410%</u>	<u>525%</u>	<u>900%</u>
0.10000%	3.6%	1.6%	(4.7)%	(26.2)%
0.15675%	3.4%	1.4%	(5.0)%	(26.5)%
3.22838%	(11.8)%	(14.0)%	(20.9)%	(45.0)%
6.30000% and above	**	**	**	**

**Sensitivity of Class SN to Prepayments
Assumed Price 24.0%***

<u>LIBOR</u>	<u>PSA Prepayment Assumption Rates</u>			
	<u>373%</u>	<u>410%</u>	<u>525%</u>	<u>900%</u>
0.10000%	5.3%	3.3%	(3.0)%	(24.2)%
0.15675%	5.0%	3.0%	(3.3)%	(24.6)%
3.22838%	(10.9)%	(13.1)%	(20.0)%	(43.9)%
6.30000% and above	**	**	**	**

SECURITY GROUP 18

**Sensitivity of Class BI to Prepayments
Assumed Price 11.5%***

<u>PSA Prepayment Assumption Rates</u>				
<u>275%</u>	<u>310%</u>	<u>425%</u>	<u>514%</u>	<u>700%</u>
4.2%	4.2%	4.2%	0.0%	(10.0)%

**Sensitivity of Class ES to Prepayments
Assumed Price 24.0%***

<u>LIBOR</u>	<u>PSA Prepayment Assumption Rates</u>			
	<u>275%</u>	<u>310%</u>	<u>425%</u>	<u>700%</u>
0.10000%	10.4%	8.5%	2.4%	(12.8)%
0.15675%	10.1%	8.3%	2.1%	(13.1)%
3.22838%	(5.4)%	(7.4)%	(14.1)%	(30.9)%
6.30000% and above	**	**	**	**

**Sensitivity of Class SE to Prepayments
Assumed Price 24.0%***

<u>LIBOR</u>	<u>PSA Prepayment Assumption Rates</u>			
	<u>275%</u>	<u>310%</u>	<u>425%</u>	<u>700%</u>
0.10000%	10.4%	8.5%	2.4%	(12.8)%
0.15675%	10.1%	8.3%	2.1%	(13.1)%
3.22838%	(5.4)%	(7.4)%	(14.1)%	(30.9)%
6.30000% and above	**	**	**	**

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

** Indicates that investors will suffer a loss of virtually all of their investment.

SECURITY GROUP 19

**Sensitivity of Class IQ to Prepayments
Assumed Price 15.0%***

PSA Prepayment Assumption Rates				
<u>205%</u>	<u>240%</u>	<u>300%</u>	<u>365%</u>	<u>500%</u>
3.2%	3.2%	3.2%	0.0%	(7.4)%

**Sensitivity of Class LS to Prepayments
Assumed Price 24.0%***

<u>LIBOR</u>	PSA Prepayment Assumption Rates			
	<u>205%</u>	<u>240%</u>	<u>300%</u>	<u>500%</u>
0.10000%	14.0%	12.2%	9.1%	(1.7)%
0.15675%	13.8%	11.9%	8.8%	(2.0)%
3.22838%	(1.5)%	(3.4)%	(6.8)%	(18.5)%
6.30000% and above	**	**	**	**

**Sensitivity of Class SL to Prepayments
Assumed Price 28.0%***

<u>LIBOR</u>	PSA Prepayment Assumption Rates			
	<u>205%</u>	<u>240%</u>	<u>300%</u>	<u>500%</u>
0.10000%	9.7%	7.8%	4.6%	(6.4)%
0.15675%	9.4%	7.6%	4.3%	(6.7)%
3.22838%	(3.8)%	(5.8)%	(9.2)%	(21.1)%
6.30000% and above	**	**	**	**

SECURITY GROUPS 18 AND 19

**Sensitivity of Class KS to Prepayments
Assumed Price 24.0%***

<u>LIBOR</u>	PSA Prepayment Assumption Rates							
	<u>205%</u>	<u>240%</u>	<u>275%</u>	<u>300%</u>	<u>310%</u>	<u>425%</u>	<u>500%</u>	<u>700%</u>
0.10000%	14.0%	12.2%	10.4%	9.1%	8.5%	2.4%	(1.7)%	(12.8)%
0.15675%	13.8%	11.9%	10.1%	8.8%	8.3%	2.1%	(2.0)%	(13.1)%
3.22838%	(1.5)%	(3.4)%	(5.4)%	(6.8)%	(7.4)%	(14.1)%	(18.5)%	(30.9)%
6.30000% and above	**	**	**	**	**	**	**	**

**Sensitivity of Class QI to Prepayments
Assumed Price 14.0%***

PSA Prepayment Assumption Rates								
<u>205%</u>	<u>240%</u>	<u>275%</u>	<u>300%</u>	<u>310%</u>	<u>382%</u>	<u>425%</u>	<u>500%</u>	<u>700%</u>
4.0%	3.3%	2.8%	2.8%	2.5%	0.0%	(1.5)%	(5.5)%	(17.0)%

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

** Indicates that investors will suffer a loss of virtually all of their investment.

**Sensitivity of Class SK to Prepayments
Assumed Price 28.0%***

LIBOR	PSA Prepayment Assumption Rates							
	205%	240%	275%	300%	310%	425%	500%	700%
0.10000%	9.7%	7.8%	5.9%	4.6%	4.0%	(2.2)%	(6.4)%	(17.9)%
0.15675%	9.4%	7.6%	5.7%	4.3%	3.8%	(2.5)%	(6.7)%	(18.2)%
3.22838%	(3.8)%	(5.8)%	(7.8)%	(9.2)%	(9.8)%	(16.5)%	(21.1)%	(33.6)%
6.30000% and above	**	**	**	**	**	**	**	**

**Sensitivity of Class SP to Prepayments
Assumed Price 26.0%***

LIBOR	PSA Prepayment Assumption Rates							
	205%	240%	275%	300%	310%	425%	500%	700%
0.10000%	11.7%	9.8%	8.0%	6.7%	6.1%	(0.1)%	(4.2)%	(15.5)%
0.15675%	11.4%	9.6%	7.7%	6.4%	5.9%	(0.4)%	(4.5)%	(15.8)%
3.22838%	(2.7)%	(4.7)%	(6.7)%	(8.1)%	(8.7)%	(15.4)%	(19.9)%	(32.4)%
6.30000% and above	**	**	**	**	**	**	**	**

SECURITY GROUP 20

**Sensitivity of Class KI to Prepayments
Assumed Price 8.3%***

PSA Prepayment Assumption Rates				
150%	300%	450%	600%	626%
27.4%	19.1%	10.5%	1.6%	0.0%

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

** Indicates that investors will suffer a loss of virtually all of their investment.

CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

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

REMIC Elections

In the opinion of Cleary Gottlieb Steen & Hamilton LLP, the Trust will constitute a 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 Principal Only, 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 (as described in “Yield, Maturity and Prepayment Considerations” in this Supplement) is as follows:

<u>Group(s)</u>	<u>PSA</u>
1	600%
2	160%
3, 6, 10 and 12	400%
4	350%
5, 8, 9, 11, 15, 20 and 21	300%
7	550%
13	340%
14	330%
16	180%
17	410%
18	310%
19	240%

In the case of the Floating Rate Classes, the interest rate values to be used for these determinations are the initial Interest Rates as set forth in the Terms Sheet under “Interest Rates.” No representation is made, however, about the rate at which prepayments on the Mortgage Loans underlying any Group of Trust Assets actually will occur or the level of LIBOR or Compounded SOFR 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.

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 pay-

ments 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.

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.

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. Fiduciaries of any such Plans should consult with their counsel before purchasing any of the Securities.

Prospective Plan Investors should consult with their advisors 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.

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.

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, if any, from (1) September 1, 2020 on the Fixed Rate and Delay Classes and (2) September 20, 2020 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 Cleary Gottlieb Steen & Hamilton LLP and Marcell Solomon & Associates, P.C., and for the Trustee by Greenberg Traurig, LLP.

Schedule I

Available Combinations(1)

REMIC Securities		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 7								
Combination 1(5)								
H	\$58,774,457	HK	\$58,774,457	SC/PT	1.50%	FIX	38382JM94	June 2049
		HM	58,774,457	SC/PT	1.25	FIX	38382JN28	June 2049
		HN	58,774,457	SC/PT	1.00	FIX	38382JN36	June 2049
		HO	58,774,457	SC/PT	0.00	PO	38382JN44	June 2049
		HP	58,774,457	SC/PT	0.75	FIX	38382JN51	June 2049
		HQ	58,774,457	SC/PT	0.50	FIX	38382JN69	June 2049
		HR	58,774,457	SC/PT	0.25	FIX	38382JN77	June 2049
		IH	23,509,782	NTL(SC/PT)	5.00	FIX/IO	38382JN85	June 2049
Security Group 10								
Combination 2								
AI	\$ 3,927,274	WA(6)	\$ 5,105,369	SC/PT	(7)	WAC/DLY	38382JN93	June 2050
CI	3,565,612							
LO	1,026,122							
MO	4,079,247							
Security Group 11								
Combination 3(5)								
CA	\$66,015,042	CB	\$66,015,042	PT	2.50%	FIX	38382JP26	September 2050
		CD	66,015,042	PT	2.00	FIX	38382JP34	September 2050
		CE	66,015,042	PT	1.50	FIX	38382JP42	September 2050
		CG	66,015,042	PT	1.00	FIX	38382JP59	September 2050
		IC	44,010,028	NTL(PT)	3.00	FIX/IO	38382JP67	September 2050
Security Groups 6 and 12								
Combination 4(8)								
HI	\$16,092,859	DI	\$29,185,676	NTL(SC/PT)	4.50%	FIX/IO	38382JP75	August 2040
IJ	13,092,817							

REMIC Securities			MX Securities					
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Maximum Original Class Principal or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Combination 5(5)(8)								
AH	\$17,039,498	DA	\$32,750,879	SC/PT	0.75%	FIX	38382JK54	August 2040
HI	14,199,582	DB	32,750,879	SC/PT	1.00	FIX	38382JK62	August 2040
IJ	13,092,817	DC	32,750,879	SC/PT	1.25	FIX	38382JK70	August 2040
JN	15,711,381	DE	32,750,879	SC/PT	1.50	FIX	38382JK88	August 2040
		TI	27,292,399	NTL(SC/PT)	4.50	FIX/IO	38382JK96	August 2040
Security Group 16								
Combination 6(5)								
PD	\$23,607,287	PB	\$25,812,646	PAC/AD	3.00%	FIX	38382JL20	September 2050
PL	1,337,000	PE	25,812,646	PAC/AD	2.50	FIX	38382JL38	September 2050
PY	868,359	PG	25,812,646	PAC/AD	2.00	FIX	38382JL46	September 2050
		PH	25,812,646	PAC/AD	1.50	FIX	38382JL53	September 2050
		PI	17,208,430	NTL(PAC/AD)	3.00	FIX/IO	38382JL61	September 2050
		PJ	25,812,646	PAC/AD	1.00	FIX	38382JL79	September 2050
Combination 7(5)								
PD	\$23,607,287	IP	\$16,629,524	NTL(PAC/AD)	3.00%	FIX/IO	38382JL87	April 2050
PL	1,337,000	PC	24,944,287	PAC/AD	3.00	FIX	38382JL95	April 2050
		PK	24,944,287	PAC/AD	2.50	FIX	38382JM29	April 2050
		PM	24,944,287	PAC/AD	2.00	FIX	38382JM37	April 2050
		PN	24,944,287	PAC/AD	1.50	FIX	38382JM45	April 2050
		PQ	24,944,287	PAC/AD	1.00	FIX	38382JM52	April 2050
Security Group 17								
Combination 8								
MS	\$23,072,421	SN	\$41,331,974	NTL(PT)	(7)	INV/IO	38382JM60	September 2050
SM	18,259,553							
Security Groups 18 and 19								
Combination 9(8)								
BI	\$ 5,000,000	QI	\$13,333,333	NTL(PAC/AD)	3.00%	FIX/IO	38382JM78	September 2050
IQ	8,333,333							
Combination 10(8)								
EF	\$ 7,176,324	FP	\$39,422,398	PT	(7)	FLT	38382JM86	September 2050
FE	7,949,675							
FL	12,769,304							
LF	11,527,095							

REMIC Securities			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)
Combination 11(8)								
ES	\$ 7,176,324	KS	\$18,703,419	NTL(PT)	(7)	INV/IO	38382JJ98	September 2050
LS	11,527,095							
Combination 12(8)								
ES	\$ 7,176,324	SP	\$39,422,398	NTL(PT)	(7)	INV/IO	38382JK21	September 2050
LS	11,527,095							
SE	7,949,675							
SL	12,769,304							
Combination 13(8)								
SE	\$ 7,949,675	SK	\$20,718,979	NTL(PT)	(7)	INV/IO	38382JK39	September 2050
SL	12,769,304							
Combination 14(8)								
ZA	\$ 6,609,600	UZ	\$11,752,600	SUP	1.50%	FIX/Z	38382JK47	September 2050
ZB	5,143,000							

- (1) All exchanges must comply with minimum denomination restrictions.
- (2) 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.
- (3) As defined under "Class Types" in Appendix I to the Base Offering Circular.
- (4) See "Yield, Maturity and Prepayment Considerations — Final Distribution Date" in this Supplement.
- (5) In the case of Combinations 1, 3, 5, 6 and 7, various subcombinations are permitted. See "Description of the Securities — Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations.
- (6) In the event that either (1) the Interest Rate of this MX Class will equal or exceed 1,200% per annum for any Accrual Period or (2) the Class Principal Balance of this MX Class will be reduced to zero on any Distribution Date, the Trustee will, prior to the close of business on the last Business Day of the calendar month immediately preceding the related Distribution Date in the first case, and prior to the related Distribution Date on which the Class Principal Balance of this MX Class would be reduced to zero in the second case, effect a mandatory exchange of this MX Class for its related REMIC Securities and, thereafter, no further exchanges of such REMIC Securities will be permitted.
- (7) The Interest Rate will be calculated as described under "Terms Sheet — Interest Rates" in this Supplement.
- (8) Derived from REMIC Classes relating to separate Groups.

Schedule II

SCHEDULED PRINCIPAL BALANCES

<u>Distribution Date</u>	<u>Class PA</u>	<u>Classes HA and HL (in the aggregate)</u>	<u>Classes GA and GL (in the aggregate)</u>	<u>Classes EA and EL (in the aggregate)</u>
Initial Balance	\$67,219,746.00	\$13,136,541.00	\$35,076,283.00	\$43,729,811.00
October 2020	67,029,817.16	13,065,470.40	34,958,892.95	43,575,265.29
November 2020	66,823,061.10	12,986,876.70	34,826,564.79	43,398,043.26
December 2020	66,599,556.03	12,900,829.48	34,679,361.47	43,198,252.62
January 2021	66,359,390.96	12,807,410.33	34,517,360.85	42,976,031.77
February 2021	66,102,665.71	12,706,712.79	34,340,655.59	42,731,549.72
March 2021	65,829,490.77	12,598,842.19	34,149,353.16	42,465,006.02
April 2021	65,539,987.29	12,483,915.53	33,943,575.70	42,176,630.58
May 2021	65,234,286.99	12,362,061.30	33,723,459.99	41,866,683.41
June 2021	64,912,532.04	12,233,419.24	33,489,157.24	41,535,454.35
July 2021	64,574,874.97	12,098,140.10	33,240,833.00	41,183,262.65
August 2021	64,221,478.55	11,956,385.41	32,978,666.95	40,810,456.53
September 2021	63,852,515.67	11,808,327.09	32,702,852.73	40,417,412.69
October 2021	63,468,169.21	11,654,147.19	32,413,597.65	40,004,535.69
November 2021	63,068,631.83	11,494,037.46	32,111,122.53	39,572,257.34
December 2021	62,654,105.91	11,328,199.01	31,795,661.33	39,121,035.94
January 2022	62,224,803.28	11,156,841.86	31,467,460.94	38,651,355.53
February 2022	61,780,945.09	10,980,184.50	31,126,780.82	38,163,725.04
March 2022	61,322,761.61	10,798,453.41	30,773,892.65	37,658,677.39
April 2022	60,850,492.03	10,611,882.56	30,409,080.00	37,136,768.52
May 2022	60,364,384.22	10,420,712.94	30,032,637.90	36,598,576.39
June 2022	59,864,694.56	10,225,191.94	29,644,872.51	36,044,699.90
July 2022	59,351,687.64	10,025,572.89	29,246,100.63	35,475,757.75
August 2022	58,825,636.10	9,822,114.40	28,836,649.29	34,892,387.32
September 2022	58,286,820.30	9,615,079.83	28,416,855.29	34,295,243.40
October 2022	57,735,528.12	9,404,736.66	27,987,064.72	33,684,996.96
November 2022	57,172,054.67	9,198,136.51	27,547,632.47	33,062,333.86
December 2022	56,596,702.03	8,995,212.05	27,098,921.73	32,427,953.52
January 2023	56,009,778.95	8,795,897.15	26,641,303.46	31,782,567.52
February 2023	55,411,600.59	8,600,126.85	26,175,155.88	31,147,143.15
March 2023	54,817,727.41	8,407,837.33	25,714,287.30	30,521,528.36
April 2023	54,228,129.16	8,218,965.91	25,258,638.72	29,905,573.38
May 2023	53,642,775.75	8,033,451.01	24,808,151.76	29,299,130.71
June 2023	53,061,637.32	7,851,232.15	24,362,768.69	28,702,055.06
July 2023	52,484,684.21	7,672,249.91	23,922,432.39	28,114,203.31
August 2023	51,911,886.96	7,496,445.95	23,487,086.40	27,535,434.52
September 2023	51,343,216.29	7,323,762.92	23,056,674.83	26,965,609.83
October 2023	50,778,643.15	7,154,144.52	22,631,142.44	26,404,592.51
November 2023	50,218,138.67	6,987,535.44	22,210,434.58	25,852,247.85
December 2023	49,661,674.17	6,823,881.34	21,794,497.19	25,308,443.19
January 2024	49,109,221.17	6,663,128.86	21,383,276.80	24,773,047.86
February 2024	48,560,751.39	6,505,225.56	20,976,720.54	24,245,933.15
March 2024	48,016,236.73	6,350,119.97	20,574,776.10	23,726,972.30
April 2024	47,475,649.30	6,197,761.49	20,177,391.76	23,216,040.45
May 2024	46,938,961.37	6,048,100.44	19,784,516.35	22,713,014.62

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June 2024	\$46,406,145.42	\$ 5,901,088.03	\$19,396,099.26	\$22,217,773.68
July 2024	45,877,174.10	5,756,676.31	19,012,090.44	21,730,198.33
August 2024	45,352,020.28	5,614,818.20	18,632,440.39	21,250,171.07
September 2024	44,830,656.96	5,475,467.46	18,257,100.14	20,777,576.15
October 2024	44,313,057.37	5,338,578.64	17,886,021.28	20,312,299.60
November 2024	43,799,194.90	5,204,107.14	17,519,155.89	19,854,229.14
December 2024	43,289,043.12	5,072,009.11	17,156,456.62	19,403,254.18
January 2025	42,782,575.79	4,942,895.78	16,797,876.60	18,959,265.82
February 2025	42,279,766.84	4,817,020.53	16,443,369.49	18,522,156.79
March 2025	41,780,590.38	4,694,303.07	16,092,889.47	18,091,821.44
April 2025	41,285,020.70	4,574,665.08	15,746,391.19	17,668,155.70
May 2025	40,793,032.24	4,458,030.16	15,403,829.84	17,251,057.09
June 2025	40,304,599.65	4,344,323.81	15,065,161.05	16,840,424.67
July 2025	39,819,697.72	4,233,473.33	14,730,340.99	16,436,159.02
August 2025	39,338,301.44	4,125,407.83	14,399,326.26	16,038,162.23
September 2025	38,860,385.96	4,020,058.16	14,072,073.97	15,646,337.86
October 2025	38,385,926.57	3,917,356.87	13,748,541.69	15,260,590.93
November 2025	37,914,898.78	3,817,238.17	13,428,687.46	14,883,870.72
December 2025	37,447,278.22	3,719,637.88	13,112,469.76	14,516,294.32
January 2026	36,983,040.71	3,624,493.43	12,799,847.56	14,157,642.61
February 2026	36,522,162.22	3,531,743.75	12,490,780.25	13,807,701.68
March 2026	36,064,618.91	3,441,329.31	12,185,227.68	13,466,262.67
April 2026	35,610,387.07	3,353,192.02	11,883,150.14	13,133,121.71
May 2026	35,159,443.18	3,267,275.23	11,587,187.17	12,808,079.74
June 2026	34,711,763.84	3,183,523.68	11,298,466.77	12,490,942.46
July 2026	34,267,325.86	3,101,883.50	11,016,814.05	12,181,520.15
August 2026	33,826,106.17	3,022,302.12	10,742,058.31	11,879,627.61
September 2026	33,388,081.86	2,944,728.26	10,474,032.95	11,585,084.05
October 2026	32,953,230.20	2,869,111.93	10,212,575.33	11,297,712.96
November 2026	32,521,528.59	2,795,404.35	9,957,526.70	11,017,342.04
December 2026	32,092,954.60	2,723,557.96	9,708,732.11	10,743,803.08
January 2027	31,667,485.94	2,653,526.38	9,466,040.32	10,476,931.86
February 2027	31,245,100.47	2,585,264.34	9,229,303.71	10,216,568.09
March 2027	30,825,776.23	2,518,727.72	8,998,378.17	9,962,555.26
April 2027	30,409,491.36	2,453,873.48	8,773,123.07	9,714,740.61
May 2027	29,996,224.20	2,390,659.64	8,553,401.13	9,472,975.01
June 2027	29,585,953.20	2,329,045.25	8,339,078.36	9,237,112.87
July 2027	29,178,656.98	2,268,990.40	8,130,023.97	9,007,012.07
August 2027	28,774,314.29	2,210,456.13	7,926,110.33	8,782,533.88
September 2027	28,372,904.03	2,153,404.45	7,727,212.83	8,563,542.88
October 2027	27,974,405.24	2,097,798.34	7,533,209.87	8,349,906.85
November 2027	27,578,797.12	2,043,601.67	7,343,982.77	8,141,496.74
December 2027	27,186,059.00	1,990,779.19	7,159,415.67	7,938,186.57
January 2028	26,796,170.33	1,939,296.55	6,979,395.52	7,739,853.38
February 2028	26,409,110.74	1,889,120.24	6,803,811.95	7,546,377.11
March 2028	26,024,859.97	1,840,217.58	6,632,557.27	7,357,640.59
April 2028	25,643,397.91	1,792,556.68	6,465,526.35	7,173,529.43
May 2028	25,266,613.29	1,746,106.48	6,302,616.58	6,993,931.98

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June 2028	\$24,895,014.34	\$ 1,700,836.64	\$ 6,143,727.84	\$ 6,818,739.24
July 2028	24,528,532.44	1,656,717.61	5,988,762.39	6,647,844.82
August 2028	24,167,099.84	1,613,720.56	5,837,624.85	6,481,144.87
September 2028	23,810,649.70	1,571,817.37	5,690,222.12	6,318,538.02
October 2028	23,459,116.01	1,530,980.62	5,546,463.35	6,159,925.32
November 2028	23,112,433.62	1,491,183.56	5,406,259.87	6,005,210.19
December 2028	22,770,538.23	1,452,400.13	5,269,525.13	5,854,298.34
January 2029	22,433,366.36	1,414,604.88	5,136,174.68	5,707,097.76
February 2029	22,100,855.35	1,377,773.02	5,006,126.09	5,563,518.62
March 2029	21,772,943.36	1,341,880.36	4,879,298.91	5,423,473.24
April 2029	21,449,569.35	1,306,903.32	4,755,614.64	5,286,876.03
May 2029	21,130,673.04	1,272,818.90	4,634,996.65	5,153,643.48
June 2029	20,816,194.96	1,239,604.67	4,517,370.17	5,023,694.04
July 2029	20,506,076.41	1,207,238.76	4,402,662.22	4,896,948.14
August 2029	20,200,259.42	1,175,699.84	4,290,801.59	4,773,328.08
September 2029	19,898,686.80	1,144,967.11	4,181,718.78	4,652,758.07
October 2029	19,601,302.09	1,115,020.29	4,075,345.96	4,535,164.09
November 2029	19,308,049.56	1,085,839.60	3,971,616.94	4,420,473.92
December 2029	19,018,874.19	1,057,405.76	3,870,467.12	4,308,617.05
January 2030	18,733,721.69	1,029,699.96	3,771,833.46	4,199,524.69
February 2030	18,452,538.47	1,002,703.86	3,675,654.46	4,093,129.67
March 2030	18,175,271.63	976,399.58	3,581,870.07	3,989,366.44
April 2030	17,901,868.95	950,769.68	3,490,421.72	3,888,171.03
May 2030	17,632,278.89	925,797.16	3,401,252.22	3,789,481.00
June 2030	17,366,450.60	901,465.44	3,314,305.80	3,693,235.39
July 2030	17,104,333.85	877,758.36	3,229,528.02	3,599,374.75
August 2030	16,845,879.10	854,660.14	3,146,865.73	3,507,841.00
September 2030	16,591,037.42	832,155.42	3,066,267.11	3,418,577.50
October 2030	16,339,760.55	810,229.21	2,987,681.57	3,331,528.95
November 2030	16,092,000.81	788,866.89	2,911,059.73	3,246,641.37
December 2030	15,847,711.19	768,054.22	2,836,353.42	3,163,862.11
January 2031	15,606,845.25	747,777.30	2,763,515.65	3,083,139.74
February 2031	15,369,357.18	728,022.57	2,692,500.53	3,004,424.12
March 2031	15,135,201.75	708,776.84	2,623,263.31	2,927,666.26
April 2031	14,904,334.33	690,027.22	2,555,760.31	2,852,818.40
May 2031	14,676,710.86	671,761.14	2,489,948.92	2,779,833.89
June 2031	14,452,287.85	653,966.38	2,425,787.55	2,708,667.22
July 2031	14,231,022.39	636,630.98	2,363,235.62	2,639,273.98
August 2031	14,012,872.11	619,743.31	2,302,253.53	2,571,610.83
September 2031	13,797,795.22	603,292.01	2,242,802.66	2,505,635.45
October 2031	13,585,750.44	587,266.03	2,184,845.31	2,441,306.58
November 2031	13,376,697.05	571,654.56	2,128,344.69	2,378,583.91
December 2031	13,170,594.85	556,447.10	2,073,264.90	2,317,428.15
January 2032	12,967,404.18	541,633.38	2,019,570.94	2,257,800.91
February 2032	12,767,085.87	527,203.40	1,967,228.64	2,199,664.75
March 2032	12,569,601.28	513,147.42	1,916,204.64	2,142,983.15
April 2032	12,374,912.28	499,455.93	1,866,466.43	2,087,720.43
May 2032	12,182,981.21	486,119.67	1,817,982.27	2,033,841.81

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June 2032	\$11,993,770.93	\$ 473,129.59	\$ 1,770,721.18	\$ 1,981,313.34
July 2032	11,807,244.77	460,476.89	1,724,652.95	1,930,101.87
August 2032	11,623,366.53	448,152.99	1,679,748.11	1,880,175.07
September 2032	11,442,100.51	436,149.50	1,635,977.88	1,831,501.39
October 2032	11,263,411.46	424,458.27	1,593,314.22	1,784,050.04
November 2032	11,087,264.58	413,071.35	1,551,729.73	1,737,790.98
December 2032	10,913,625.55	401,980.96	1,511,197.71	1,692,694.88
January 2033	10,742,460.47	391,179.56	1,471,692.08	1,648,733.15
February 2033	10,573,735.90	380,659.76	1,433,187.44	1,605,877.85
March 2033	10,407,418.85	370,414.38	1,395,658.96	1,564,101.77
April 2033	10,243,476.73	360,436.42	1,359,082.45	1,523,378.30
May 2033	10,081,877.41	350,719.03	1,323,434.29	1,483,681.52
June 2033	9,922,589.15	341,255.57	1,288,691.45	1,444,986.13
July 2033	9,765,580.64	332,039.53	1,254,831.45	1,407,267.41
August 2033	9,610,820.99	323,064.60	1,221,832.37	1,370,501.30
September 2033	9,458,279.70	314,324.60	1,189,672.82	1,334,664.26
October 2033	9,307,926.67	305,813.52	1,158,331.93	1,299,733.37
November 2033	9,159,732.21	297,525.50	1,127,789.33	1,265,686.23
December 2033	9,013,666.99	289,454.81	1,098,025.18	1,232,501.02
January 2034	8,869,702.11	281,595.90	1,069,020.10	1,200,156.41
February 2034	8,727,809.00	273,943.33	1,040,755.18	1,168,631.63
March 2034	8,587,959.50	266,491.80	1,013,211.99	1,137,906.38
April 2034	8,450,125.80	259,236.17	986,372.54	1,107,960.87
May 2034	8,314,280.47	252,171.39	960,219.29	1,078,775.80
June 2034	8,180,396.43	245,292.56	934,735.11	1,050,332.31
July 2034	8,048,446.96	238,594.92	909,903.31	1,022,612.03
August 2034	7,918,405.69	232,073.79	885,707.61	995,597.03
September 2034	7,790,246.59	225,724.63	862,132.10	969,269.79
October 2034	7,663,943.99	219,543.04	839,161.30	943,613.26
November 2034	7,539,472.55	213,524.67	816,780.09	918,610.78
December 2034	7,416,807.25	207,665.35	794,973.71	894,246.10
January 2035	7,295,923.41	201,960.96	773,727.78	870,503.35
February 2035	7,176,796.69	196,407.50	753,028.27	847,367.09
March 2035	7,059,403.05	191,001.10	732,861.49	824,822.21
April 2035	6,943,718.76	185,737.95	713,214.08	802,853.99
May 2035	6,829,720.44	180,614.35	694,073.04	781,448.09
June 2035	6,717,384.97	175,626.70	675,425.64	760,590.48
July 2035	6,606,689.58	170,771.49	657,259.51	740,267.49
August 2035	6,497,611.77	166,045.28	639,562.55	720,465.80
September 2035	6,390,129.34	161,444.75	622,322.98	701,172.39
October 2035	6,284,220.41	156,966.64	605,529.30	682,374.58
November 2035	6,179,863.35	152,607.78	589,170.30	664,059.98
December 2035	6,077,036.85	148,365.08	573,235.04	646,216.52
January 2036	5,975,719.85	144,235.53	557,712.85	628,832.43
February 2036	5,875,891.60	140,216.19	542,593.32	611,896.20
March 2036	5,777,531.61	136,304.21	527,866.31	595,396.63
April 2036	5,680,619.65	132,496.79	513,521.92	579,322.79
May 2036	5,585,135.78	128,791.22	499,550.50	563,664.01

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June 2036	\$ 5,491,060.30	\$ 125,184.86	\$ 485,942.63	\$ 548,409.87
July 2036	5,398,373.80	121,675.12	472,689.13	533,550.24
August 2036	5,307,057.10	118,259.49	459,781.05	519,075.22
September 2036	5,217,091.28	114,935.52	447,209.64	504,975.13
October 2036	5,128,457.69	111,700.82	434,966.40	491,240.58
November 2036	5,041,137.91	108,553.07	423,043.02	477,862.36
December 2036	4,955,113.76	105,489.99	411,431.39	464,831.52
January 2037	4,870,367.32	102,509.39	400,123.62	452,139.31
February 2037	4,786,880.89	99,609.10	389,112.01	439,777.21
March 2037	4,704,637.02	96,787.02	378,389.03	427,736.91
April 2037	4,623,618.47	94,041.12	367,947.36	416,010.28
May 2037	4,543,808.25	91,369.40	357,779.86	404,589.42
June 2037	4,465,189.60	88,769.92	347,879.56	393,466.61
July 2037	4,387,745.96	86,240.79	338,239.67	382,634.33
August 2037	4,311,461.01	83,780.17	328,853.55	372,085.23
September 2037	4,236,318.63	81,386.25	319,714.75	361,812.16
October 2037	4,162,302.93	79,057.30	310,816.97	351,808.13
November 2037	4,089,398.23	76,791.60	302,154.06	342,066.34
December 2037	4,017,589.05	74,587.49	293,720.03	332,580.14
January 2038	3,946,860.13	72,443.36	285,509.05	323,343.05
February 2038	3,877,196.40	70,357.63	277,515.41	314,348.77
March 2038	3,808,582.99	68,328.76	269,733.56	305,591.11
April 2038	3,741,005.24	66,355.25	262,158.09	297,064.09
May 2038	3,674,448.69	64,435.65	254,783.71	288,761.84
June 2038	3,608,899.05	62,568.54	247,605.28	280,678.64
July 2038	3,544,342.23	60,752.52	240,617.78	272,808.93
August 2038	3,480,764.35	58,986.26	233,816.31	265,147.27
September 2038	3,418,151.69	57,268.44	227,196.09	257,688.35
October 2038	3,356,490.73	55,597.77	220,752.49	250,427.02
November 2038	3,295,768.11	53,973.01	214,480.95	243,358.23
December 2038	3,235,970.67	52,392.95	208,377.06	236,477.08
January 2039	3,177,085.41	50,856.40	202,436.51	229,778.75
February 2039	3,119,099.52	49,362.21	196,655.08	223,258.60
March 2039	3,062,000.36	47,909.25	191,028.69	216,912.05
April 2039	3,005,775.44	46,496.43	185,553.33	210,734.66
May 2039	2,950,412.46	45,122.69	180,225.11	204,722.11
June 2039	2,895,899.27	43,786.98	175,040.24	198,870.17
July 2039	2,842,223.90	42,488.29	169,995.00	193,174.71
August 2039	2,789,374.52	41,225.65	165,085.79	187,631.73
September 2039	2,737,339.47	39,998.08	160,309.09	182,237.31
October 2039	2,686,107.25	38,804.65	155,661.47	176,987.63
November 2039	2,635,666.51	37,644.46	151,139.58	171,878.97
December 2039	2,586,006.05	36,516.61	146,740.18	166,907.69
January 2040	2,537,114.83	35,420.25	142,460.07	162,070.26
February 2040	2,488,981.95	34,354.52	138,296.16	157,363.23
March 2040	2,441,596.65	33,318.61	134,245.43	152,783.23
April 2040	2,394,948.34	32,311.72	130,304.94	148,326.99
May 2040	2,349,026.55	31,333.08	126,471.82	143,991.31

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June 2040	\$ 2,303,820.96	\$ 30,381.92	\$ 122,743.27	\$ 139,773.06
July 2040	2,259,321.38	29,457.51	119,116.56	135,669.22
August 2040	2,215,517.78	28,559.13	115,589.05	131,676.82
September 2040	2,172,400.24	27,686.08	112,158.14	127,792.97
October 2040	2,129,958.99	26,837.67	108,821.30	124,014.85
November 2040	2,088,184.38	26,013.25	105,576.08	120,339.72
December 2040	2,047,066.90	25,212.17	102,420.07	116,764.90
January 2041	2,006,597.17	24,433.79	99,350.95	113,287.79
February 2041	1,966,765.94	23,677.51	96,366.43	109,905.84
March 2041	1,927,564.06	22,942.73	93,464.29	106,616.58
April 2041	1,888,982.53	22,228.86	90,642.37	103,417.59
May 2041	1,851,012.47	21,535.35	87,898.56	100,306.50
June 2041	1,813,645.11	20,861.63	85,230.81	97,281.04
July 2041	1,776,871.81	20,207.17	82,637.11	94,338.95
August 2041	1,740,684.03	19,571.45	80,115.51	91,478.06
September 2041	1,705,073.37	18,953.96	77,664.11	88,696.24
October 2041	1,670,031.51	18,354.21	75,281.06	85,991.43
November 2041	1,635,550.29	17,771.70	72,964.55	83,361.59
December 2041	1,601,621.61	17,205.98	70,712.81	80,804.77
January 2042	1,568,237.53	16,656.58	68,524.15	78,319.03
February 2042	1,535,390.18	16,123.06	66,396.87	75,902.52
March 2042	1,503,071.81	15,604.98	64,329.37	73,553.41
April 2042	1,471,274.77	15,101.92	62,320.04	71,269.93
May 2042	1,439,991.54	14,613.48	60,367.34	69,050.34
June 2042	1,409,214.67	14,139.24	58,469.77	66,892.95
July 2042	1,378,936.82	13,678.83	56,625.85	64,796.13
August 2042	1,349,150.76	13,231.85	54,834.16	62,758.26
September 2042	1,319,849.36	12,797.94	53,093.31	60,777.80
October 2042	1,291,025.57	12,376.75	51,401.93	58,853.21
November 2042	1,262,672.46	11,967.92	49,758.71	56,983.02
December 2042	1,234,783.17	11,571.10	48,162.35	55,165.77
January 2043	1,207,350.96	11,185.98	46,611.60	53,400.07
February 2043	1,180,369.15	10,812.22	45,105.23	51,684.53
March 2043	1,153,831.18	10,449.51	43,642.06	50,017.83
April 2043	1,127,730.57	10,097.55	42,220.92	48,398.66
May 2043	1,102,060.93	9,756.03	40,840.68	46,825.74
June 2043	1,076,815.95	9,424.67	39,500.24	45,297.85
July 2043	1,051,989.42	9,103.18	38,198.53	43,813.78
August 2043	1,027,575.20	8,791.30	36,934.50	42,372.36
September 2043	1,003,567.25	8,488.74	35,707.13	40,972.43
October 2043	979,959.61	8,195.26	34,515.43	39,612.90
November 2043	956,746.38	7,910.60	33,358.43	38,292.66
December 2043	933,921.78	7,634.51	32,235.20	37,010.67
January 2044	911,480.07	7,366.75	31,144.81	35,765.88
February 2044	889,415.62	7,107.09	30,086.38	34,557.31
March 2044	867,722.86	6,855.30	29,059.03	33,383.97
April 2044	846,396.30	6,611.16	28,061.91	32,244.90
May 2044	825,430.53	6,374.45	27,094.21	31,139.18

<u>Distribution Date</u>	<u>Class PA</u>	<u>Classes HA and HL (in the aggregate)</u>	<u>Classes GA and GL (in the aggregate)</u>	<u>Classes EA and EL (in the aggregate)</u>
June 2044	\$ 804,820.21	\$ 6,144.97	\$ 26,155.11	\$ 30,065.91
July 2044	784,560.09	5,922.51	25,243.83	29,024.20
August 2044	764,644.96	5,706.88	24,359.62	28,013.20
September 2044	745,069.71	5,497.87	23,501.73	27,032.07
October 2044	725,829.29	5,295.31	22,669.44	26,080.00
November 2044	706,918.72	5,099.01	21,862.03	25,156.19
December 2044	688,333.09	4,908.79	21,078.84	24,259.87
January 2045	670,067.56	4,724.48	20,319.19	23,390.30
February 2045	652,117.36	4,545.91	19,582.42	22,546.73
March 2045	634,477.78	4,372.91	18,867.92	21,728.45
April 2045	617,144.17	4,205.34	18,175.05	20,934.77
May 2045	600,111.96	4,043.02	17,503.23	20,165.01
June 2045	583,376.63	3,885.82	16,851.86	19,418.52
July 2045	566,933.73	3,733.59	16,220.38	18,694.65
August 2045	550,778.88	3,586.17	15,608.23	17,992.77
September 2045	534,907.74	3,443.44	15,014.88	17,312.28
October 2045	519,316.04	3,305.26	14,439.80	16,652.59
November 2045	503,999.58	3,171.50	13,882.48	16,013.12
December 2045	488,954.20	3,042.02	13,342.42	15,393.30
January 2046	474,175.82	2,916.71	12,819.13	14,792.59
February 2046	459,660.40	2,795.45	12,312.15	14,210.45
March 2046	445,403.95	2,678.11	11,821.02	13,646.37
April 2046	431,402.57	2,564.59	11,345.29	13,099.85
May 2046	417,652.37	2,454.76	10,884.52	12,570.39
June 2046	404,149.55	2,348.53	10,438.29	12,057.50
July 2046	390,890.35	2,245.79	10,006.20	11,560.74
August 2046	377,871.06	2,146.44	9,587.83	11,079.63
September 2046	365,088.01	2,050.37	9,182.79	10,613.75
October 2046	352,537.62	1,957.49	8,790.72	10,162.66
November 2046	340,216.32	1,867.71	8,411.24	9,725.93
December 2046	328,120.61	1,780.93	8,043.98	9,303.18
January 2047	316,247.05	1,697.06	7,688.60	8,893.99
February 2047	304,592.21	1,616.03	7,344.76	8,497.98
March 2047	293,152.74	1,537.74	7,012.13	8,114.78
April 2047	281,925.34	1,462.11	6,690.38	7,744.02
May 2047	270,906.74	1,389.07	6,379.20	7,385.34
June 2047	260,093.73	1,318.53	6,078.28	7,038.41
July 2047	249,483.12	1,250.43	5,787.33	6,702.87
August 2047	239,071.80	1,184.69	5,506.06	6,378.41
September 2047	228,856.67	1,121.23	5,234.18	6,064.70
October 2047	218,834.71	1,059.99	4,971.43	5,761.43
November 2047	209,002.91	1,000.90	4,717.53	5,468.30
December 2047	199,358.33	943.90	4,472.23	5,185.02
January 2048	189,898.04	888.92	4,235.28	4,911.30
February 2048	180,619.18	835.91	4,006.42	4,646.86
March 2048	171,518.92	784.80	3,785.43	4,391.44
April 2048	162,594.47	735.53	3,572.06	4,144.75
May 2048	153,843.08	688.04	3,366.10	3,906.56

<u>Distribution Date</u>	<u>Class PA</u>	<u>Classes HA and HL (in the aggregate)</u>	<u>Classes GA and GL (in the aggregate)</u>	<u>Classes EA and EL (in the aggregate)</u>
June 2048	\$ 145,262.04	\$ 642.29	\$ 3,167.33	\$ 3,676.62
July 2048	136,848.68	598.22	2,975.52	3,454.66
August 2048	128,600.35	555.78	2,790.48	3,240.48
September 2048	120,514.48	514.91	2,611.99	3,033.82
October 2048	112,588.49	475.58	2,439.88	2,834.47
November 2048	104,819.86	437.72	2,273.93	2,642.21
December 2048	97,206.11	401.30	2,113.98	2,456.84
January 2049	89,744.79	366.26	1,959.83	2,278.14
February 2049	82,433.48	332.58	1,811.32	2,105.91
March 2049	75,269.80	300.19	1,668.27	1,939.96
April 2049	68,251.40	269.07	1,530.51	1,780.11
May 2049	61,375.97	239.17	1,397.88	1,626.16
June 2049	54,641.23	210.46	1,270.24	1,477.93
July 2049	48,044.93	182.89	1,147.42	1,335.27
August 2049	41,584.85	156.43	1,029.27	1,197.98
September 2049	35,258.82	131.05	915.66	1,065.92
October 2049	29,064.68	106.71	806.44	938.92
November 2049	23,000.31	83.37	701.48	816.82
December 2049	17,063.62	61.00	600.64	699.48
January 2050	11,252.55	39.58	503.80	586.74
February 2050	5,565.07	19.07	410.82	478.47
March 2050	0.00	0.00	321.60	374.53
April 2050	0.00	0.00	236.01	274.77
May 2050	0.00	0.00	153.93	179.08
June 2050	0.00	0.00	75.26	87.31
July 2050 and thereafter	0.00	0.00	0.00	0.00

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
Initial Balance	\$25,812,646.00	\$72,663,950.00	\$30,151,000.00	\$50,082,000.00
October 2020	25,731,871.87	72,420,005.76	30,056,058.39	49,944,886.16
November 2020	25,643,781.37	72,124,011.41	29,944,764.01	49,788,173.92
December 2020	25,548,409.67	71,776,099.56	29,817,171.64	49,611,935.91
January 2021	25,445,797.31	71,376,500.94	29,673,358.88	49,416,265.22
February 2021	25,335,990.22	70,925,544.89	29,513,426.18	49,201,275.44
March 2021	25,219,039.65	70,423,659.57	29,337,496.86	48,967,100.56
April 2021	25,095,002.19	69,871,371.86	29,145,716.97	48,713,894.89
May 2021	24,963,939.67	69,269,306.97	28,938,255.23	48,441,832.94
June 2021	24,825,919.13	68,618,187.72	28,715,302.80	48,151,109.24
July 2021	24,681,012.80	67,918,833.50	28,477,073.08	47,841,938.19
August 2021	24,529,297.97	67,172,158.91	28,223,801.40	47,514,553.76
September 2021	24,370,856.98	66,379,172.14	27,955,744.68	47,169,209.27
October 2021	24,205,777.11	65,540,972.94	27,673,181.06	46,806,177.07
November 2021	24,034,150.52	64,658,750.38	27,376,409.43	46,425,748.22
December 2021	23,856,074.13	63,733,780.23	27,065,748.96	46,028,232.09
January 2022	23,671,649.58	62,767,422.08	26,741,538.51	45,613,955.95
February 2022	23,480,983.07	61,761,116.15	26,404,136.07	45,183,264.58
March 2022	23,284,185.29	60,716,379.80	26,053,918.10	44,736,519.75
April 2022	23,081,371.29	59,634,803.84	25,691,278.86	44,274,099.75
May 2022	22,872,660.41	58,518,048.46	25,316,629.63	43,796,398.81
June 2022	22,658,176.07	57,367,839.03	24,930,397.96	43,303,826.61
July 2022	22,438,045.72	56,185,961.59	24,533,026.85	42,796,807.63
August 2022	22,212,400.67	54,974,258.11	24,124,973.89	42,275,780.56
September 2022	21,981,375.97	53,734,621.64	23,706,710.32	41,741,197.64
October 2022	21,745,110.25	52,468,991.16	23,278,720.19	41,193,523.99
November 2022	21,503,745.59	51,179,346.32	22,841,499.28	40,633,236.97
December 2022	21,257,427.34	49,867,702.08	22,395,554.20	40,060,825.37
January 2023	21,006,304.02	48,536,103.10	21,941,401.33	39,476,788.78
February 2023	20,757,172.16	47,186,618.16	21,479,565.77	38,881,636.74
March 2023	20,510,015.51	45,866,689.03	21,025,095.69	38,293,517.80
April 2023	20,264,817.96	44,575,666.44	20,577,874.05	37,712,350.01
May 2023	20,021,563.50	43,312,915.27	20,137,785.62	37,138,052.36
June 2023	19,780,236.26	42,077,814.18	19,704,717.01	36,570,544.75
July 2023	19,540,820.49	40,869,755.34	19,278,556.57	36,009,748.02
August 2023	19,303,300.56	39,688,144.16	18,859,194.41	35,455,583.88
September 2023	19,067,660.96	38,532,398.97	18,446,522.37	34,907,974.96
October 2023	18,833,886.31	37,401,950.76	18,040,433.96	34,366,844.75
November 2023	18,601,961.34	36,296,242.91	17,640,824.37	33,832,117.63
December 2023	18,371,870.90	35,214,730.89	17,247,590.44	33,303,718.84
January 2024	18,143,599.96	34,156,882.05	16,860,630.62	32,781,574.46
February 2024	17,917,133.61	33,122,175.32	16,479,844.94	32,265,611.42
March 2024	17,692,457.04	32,110,100.99	16,105,135.00	31,755,757.50
April 2024	17,469,555.57	31,120,160.44	15,736,403.96	31,251,941.28
May 2024	17,248,414.63	30,151,865.91	15,373,556.46	30,754,092.17
June 2024	17,029,019.77	29,204,740.27	15,016,498.69	30,262,140.38
July 2024	16,811,356.64	28,278,316.78	14,665,138.25	29,776,016.93

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
August 2024	\$16,595,411.01	\$27,372,138.90	\$14,319,384.24	\$29,295,653.60
September 2024	16,381,168.74	26,485,759.99	13,979,147.15	28,820,982.98
October 2024	16,168,615.84	25,618,743.20	13,644,338.89	28,351,938.41
November 2024	15,957,738.39	24,776,268.05	13,314,872.76	27,888,453.99
December 2024	15,748,522.61	23,961,261.73	12,990,663.40	27,430,464.61
January 2025	15,540,954.79	23,172,834.85	12,671,626.80	26,977,905.84
February 2025	15,335,021.36	22,410,126.63	12,357,680.28	26,530,714.06
March 2025	15,130,708.83	21,672,304.01	12,048,742.43	26,088,826.31
April 2025	14,928,003.85	20,958,560.77	11,744,733.15	25,652,180.39
May 2025	14,726,893.13	20,268,116.65	11,445,573.57	25,220,714.81
June 2025	14,527,363.51	19,600,216.52	11,151,186.09	24,794,368.77
July 2025	14,329,401.92	18,954,129.59	10,861,494.30	24,373,082.16
August 2025	14,132,995.41	18,329,148.60	10,576,423.01	23,956,795.59
September 2025	13,938,131.12	17,724,589.11	10,298,471.79	23,545,450.32
October 2025	13,744,796.28	17,139,788.72	10,027,719.39	23,138,988.29
November 2025	13,552,978.22	16,574,106.40	9,763,981.46	22,737,352.10
December 2025	13,362,664.39	16,026,921.79	9,507,078.31	22,340,485.02
January 2026	13,173,842.32	15,497,634.53	9,256,834.80	21,948,330.97
February 2026	12,986,499.64	14,985,663.63	9,013,080.28	21,560,834.50
March 2026	12,800,624.07	14,490,446.84	8,775,648.39	21,177,940.80
April 2026	12,616,203.44	14,011,440.06	8,544,377.03	20,799,595.70
May 2026	12,433,225.66	13,548,116.75	8,319,108.18	20,425,745.62
June 2026	12,251,678.75	13,099,967.35	8,099,687.88	20,056,337.63
July 2026	12,071,550.81	12,666,498.77	7,885,966.05	19,691,319.40
August 2026	11,892,830.03	12,247,233.83	7,677,796.45	19,330,639.17
September 2026	11,715,504.70	11,841,710.77	7,475,036.53	18,974,245.81
October 2026	11,539,563.20	11,449,482.74	7,277,547.40	18,622,088.76
November 2026	11,364,994.00	11,070,117.32	7,085,193.66	18,275,418.16
December 2026	11,191,785.66	10,703,196.07	6,897,843.40	17,934,992.44
January 2027	11,019,926.83	10,348,314.08	6,715,368.04	17,600,701.57
February 2027	10,849,406.24	10,005,079.52	6,537,642.28	17,272,437.48
March 2027	10,680,212.71	9,673,113.23	6,364,544.01	16,950,093.94
April 2027	10,512,335.16	9,352,048.31	6,195,954.22	16,633,566.58
May 2027	10,346,363.94	9,041,529.72	6,031,756.95	16,322,752.82
June 2027	10,182,887.00	8,741,213.91	5,871,839.17	16,017,551.87
July 2027	10,021,868.00	8,450,768.46	5,716,090.75	15,717,864.70
August 2027	9,863,271.12	8,169,871.69	5,564,404.36	15,423,593.99
September 2027	9,707,061.05	7,898,212.33	5,416,675.40	15,134,644.11
October 2027	9,553,202.99	7,635,489.20	5,272,801.94	14,850,921.09
November 2027	9,401,662.62	7,381,410.86	5,132,684.66	14,572,332.58
December 2027	9,252,406.12	7,135,695.31	4,996,226.76	14,298,787.86
January 2028	9,105,400.16	6,898,069.69	4,863,333.91	14,030,197.76
February 2028	8,960,611.88	6,668,269.98	4,733,914.19	13,766,474.69
March 2028	8,818,008.88	6,446,040.71	4,607,878.02	13,507,532.55
April 2028	8,677,559.25	6,231,134.69	4,485,138.12	13,253,286.76
May 2028	8,539,231.50	6,023,312.75	4,365,609.43	13,003,654.19
June 2028	8,402,994.62	5,822,343.46	4,249,209.05	12,758,553.19

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
July 2028	\$ 8,268,818.03	\$ 5,628,002.92	\$ 4,135,856.23	\$12,517,903.49
August 2028	8,136,671.59	5,440,074.46	4,025,472.26	12,281,626.25
September 2028	8,006,525.59	5,258,348.48	3,917,980.43	12,049,643.98
October 2028	7,878,350.75	5,082,622.13	3,813,306.01	11,821,880.55
November 2028	7,752,118.20	4,912,699.20	3,711,376.18	11,598,261.15
December 2028	7,627,799.49	4,748,389.80	3,612,119.98	11,378,712.28
January 2029	7,505,366.58	4,589,510.24	3,515,468.26	11,163,161.72
February 2029	7,384,791.82	4,435,882.77	3,421,353.63	10,951,538.51
March 2029	7,266,047.98	4,287,335.44	3,329,710.46	10,743,772.90
April 2029	7,149,108.19	4,143,701.87	3,240,474.75	10,539,796.41
May 2029	7,033,945.99	4,004,821.08	3,153,584.18	10,339,541.69
June 2029	6,920,535.28	3,870,537.35	3,068,978.00	10,142,942.63
July 2029	6,808,850.35	3,740,699.98	2,986,597.03	9,949,934.21
August 2029	6,698,865.84	3,615,163.22	2,906,383.61	9,760,452.60
September 2029	6,590,556.79	3,493,786.02	2,828,281.53	9,574,435.04
October 2029	6,483,898.55	3,376,431.94	2,752,236.06	9,391,819.90
November 2029	6,378,866.86	3,262,968.98	2,678,193.84	9,212,546.61
December 2029	6,275,437.80	3,153,269.42	2,606,102.89	9,036,555.65
January 2030	6,173,587.78	3,047,209.71	2,535,912.56	8,863,788.56
February 2030	6,073,293.57	2,944,670.32	2,467,573.52	8,694,187.88
March 2030	5,974,532.26	2,845,535.62	2,401,037.68	8,527,697.18
April 2030	5,877,281.26	2,749,693.73	2,336,258.19	8,364,260.99
May 2030	5,781,518.33	2,657,036.43	2,273,189.41	8,203,824.83
June 2030	5,687,221.53	2,567,459.03	2,211,786.86	8,046,335.16
July 2030	5,594,369.24	2,480,860.24	2,152,007.23	7,891,739.39
August 2030	5,502,940.16	2,397,142.07	2,093,808.28	7,739,985.83
September 2030	5,412,913.29	2,316,209.74	2,037,148.89	7,591,023.71
October 2030	5,324,267.93	2,237,971.55	1,981,988.99	7,444,803.16
November 2030	5,236,983.67	2,162,338.81	1,928,289.53	7,301,275.16
December 2030	5,151,040.42	2,089,225.70	1,876,012.46	7,160,391.56
January 2031	5,066,418.35	2,018,549.22	1,825,120.74	7,022,105.05
February 2031	4,983,097.94	1,950,229.07	1,775,578.25	6,886,369.16
March 2031	4,901,059.94	1,884,187.58	1,727,349.81	6,753,138.22
April 2031	4,820,285.36	1,820,349.61	1,680,401.16	6,622,367.37
May 2031	4,740,755.52	1,758,642.48	1,634,698.89	6,494,012.53
June 2031	4,662,451.98	1,698,995.88	1,590,210.48	6,368,030.41
July 2031	4,585,356.59	1,641,341.80	1,546,904.24	6,244,378.45
August 2031	4,509,451.43	1,585,614.47	1,504,749.29	6,123,014.87
September 2031	4,434,718.88	1,531,750.25	1,463,715.55	6,003,898.61
October 2031	4,361,141.53	1,479,687.58	1,423,773.73	5,886,989.32
November 2031	4,288,702.26	1,429,366.95	1,384,895.26	5,772,247.38
December 2031	4,217,384.17	1,380,730.75	1,347,052.34	5,659,633.84
January 2032	4,147,170.61	1,333,723.28	1,310,217.88	5,549,110.47
February 2032	4,078,045.20	1,288,290.68	1,274,365.47	5,440,639.68
March 2032	4,009,991.74	1,244,380.82	1,239,469.41	5,334,184.55
April 2032	3,942,994.32	1,201,943.31	1,205,504.65	5,229,708.83
May 2032	3,877,037.23	1,160,929.38	1,172,446.79	5,127,176.88

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
June 2032	\$ 3,812,104.99	\$ 1,121,291.89	\$ 1,140,272.05	\$ 5,026,553.69
July 2032	3,748,182.35	1,082,985.23	1,108,957.28	4,927,804.90
August 2032	3,685,254.28	1,045,965.29	1,078,479.92	4,830,896.71
September 2032	3,623,305.97	1,010,189.39	1,048,818.00	4,735,795.94
October 2032	3,562,322.81	975,616.29	1,019,950.10	4,642,470.00
November 2032	3,502,290.41	942,206.07	991,855.38	4,550,886.85
December 2032	3,443,194.61	909,920.12	964,513.53	4,461,015.05
January 2033	3,385,021.43	878,721.13	937,904.75	4,372,823.68
February 2033	3,327,757.08	848,572.98	912,009.78	4,286,282.39
March 2033	3,271,388.02	819,440.76	886,809.84	4,201,361.35
April 2033	3,215,900.85	791,290.69	862,286.64	4,118,031.26
May 2033	3,161,282.40	764,090.13	838,422.37	4,036,263.35
June 2033	3,107,519.67	737,807.48	815,199.67	3,956,029.35
July 2033	3,054,599.88	712,412.21	792,601.65	3,877,301.48
August 2033	3,002,510.40	687,874.76	770,611.84	3,800,052.46
September 2033	2,951,238.81	664,166.57	749,214.20	3,724,255.50
October 2033	2,900,772.85	641,260.02	728,393.12	3,649,884.27
November 2033	2,851,100.45	619,128.40	708,133.39	3,576,912.91
December 2033	2,802,209.71	597,745.85	688,420.17	3,505,316.02
January 2034	2,754,088.92	577,087.40	669,239.05	3,435,068.65
February 2034	2,706,726.51	557,128.90	650,575.95	3,366,146.30
March 2034	2,660,111.10	537,846.97	632,417.20	3,298,524.88
April 2034	2,614,231.48	519,219.02	614,749.45	3,232,180.75
May 2034	2,569,076.58	501,223.21	597,559.71	3,167,090.68
June 2034	2,524,635.51	483,838.41	580,835.33	3,103,231.85
July 2034	2,480,897.54	467,044.19	564,564.00	3,040,581.84
August 2034	2,437,852.09	450,820.80	548,733.70	2,979,118.65
September 2034	2,395,488.73	435,149.14	533,332.76	2,918,820.66
October 2034	2,353,797.18	420,010.74	518,349.78	2,859,666.61
November 2034	2,312,767.33	405,387.74	503,773.68	2,801,635.65
December 2034	2,272,389.20	391,262.88	489,593.67	2,744,707.28
January 2035	2,232,652.96	377,619.45	475,799.22	2,688,861.37
February 2035	2,193,548.92	364,441.32	462,380.10	2,634,078.17
March 2035	2,155,067.53	351,712.88	449,326.33	2,580,338.24
April 2035	2,117,199.40	339,419.03	436,628.21	2,527,622.51
May 2035	2,079,935.25	327,545.18	424,276.26	2,475,912.26
June 2035	2,043,265.96	316,077.23	412,261.28	2,425,189.07
July 2035	2,007,182.52	305,001.53	400,574.29	2,375,434.88
August 2035	1,971,676.06	294,304.90	389,206.56	2,326,631.94
September 2035	1,936,737.85	283,974.59	378,149.58	2,278,762.80
October 2035	1,902,359.28	273,998.27	367,395.07	2,231,810.36
November 2035	1,868,531.87	264,364.01	356,934.95	2,185,757.78
December 2035	1,835,247.25	255,060.31	346,761.37	2,140,588.56
January 2036	1,802,497.20	246,076.02	336,866.68	2,096,286.46
February 2036	1,770,273.58	237,400.37	327,243.43	2,052,835.56
March 2036	1,738,568.42	229,022.95	317,884.36	2,010,220.20
April 2036	1,707,373.82	220,933.70	308,782.40	1,968,425.02

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
May 2036	\$ 1,676,682.03	\$ 213,122.88	\$ 299,930.68	\$ 1,927,434.92
June 2036	1,646,485.39	205,581.10	291,322.50	1,887,235.07
July 2036	1,616,776.37	198,299.26	282,951.33	1,847,810.91
August 2036	1,587,547.54	191,268.57	274,810.82	1,809,148.15
September 2036	1,558,791.58	184,480.53	266,894.80	1,771,232.75
October 2036	1,530,501.28	177,926.93	259,197.22	1,734,050.90
November 2036	1,502,669.55	171,599.84	251,712.24	1,697,589.06
December 2036	1,475,289.37	165,491.57	244,434.14	1,661,833.93
January 2037	1,448,353.85	159,594.71	237,357.36	1,626,772.45
February 2037	1,421,856.21	153,902.09	230,476.50	1,592,391.79
March 2037	1,395,789.73	148,406.78	223,786.27	1,558,679.34
April 2037	1,370,147.84	143,102.07	217,281.55	1,525,622.73
May 2037	1,344,924.02	137,981.50	210,957.35	1,493,209.82
June 2037	1,320,111.87	133,038.80	204,808.79	1,461,428.67
July 2037	1,295,705.09	128,267.93	198,831.15	1,430,267.55
August 2037	1,271,697.46	123,663.03	193,019.80	1,399,714.96
September 2037	1,248,082.86	119,218.46	187,370.27	1,369,759.60
October 2037	1,224,855.25	114,928.76	181,878.18	1,340,390.37
November 2037	1,202,008.69	110,788.65	176,539.28	1,311,596.38
December 2037	1,179,537.32	106,793.01	171,349.43	1,283,366.91
January 2038	1,157,435.37	102,936.94	166,304.58	1,255,691.46
February 2038	1,135,697.16	99,215.65	161,400.82	1,228,559.72
March 2038	1,114,317.09	95,624.55	156,634.33	1,201,961.53
April 2038	1,093,289.63	92,159.18	152,001.37	1,175,886.96
May 2038	1,072,609.36	88,815.25	147,498.34	1,150,326.23
June 2038	1,052,270.91	85,588.60	143,121.71	1,125,269.75
July 2038	1,032,269.01	82,475.20	138,868.03	1,100,708.09
August 2038	1,012,598.47	79,471.19	134,733.98	1,076,632.00
September 2038	993,254.16	76,572.80	130,716.29	1,053,032.39
October 2038	974,231.03	73,776.42	126,811.80	1,029,900.35
November 2038	955,524.13	71,078.54	123,017.43	1,007,227.11
December 2038	937,128.54	68,475.79	119,330.18	985,004.07
January 2039	919,039.45	65,964.88	115,747.13	963,222.79
February 2039	901,252.11	63,542.66	112,265.43	941,874.97
March 2039	883,761.82	61,206.08	108,882.33	920,952.48
April 2039	866,564.00	58,952.18	105,595.11	900,447.31
May 2039	849,654.07	56,778.12	102,401.17	880,351.62
June 2039	833,027.59	54,681.15	99,297.95	860,657.70
July 2039	816,680.12	52,658.60	96,282.97	841,357.98
August 2039	800,607.34	50,707.90	93,353.80	822,445.03
September 2039	784,804.96	48,826.57	90,508.11	803,911.55
October 2039	769,268.77	47,012.21	87,743.59	785,750.39
November 2039	753,994.61	45,262.50	85,058.02	767,954.51
December 2039	738,978.40	43,575.21	82,449.23	750,517.00
January 2040	724,216.11	41,948.16	79,915.11	733,431.09
February 2040	709,703.76	40,379.28	77,453.60	716,690.11
March 2040	695,437.46	38,866.53	75,062.71	700,287.54

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
April 2040	\$ 681,413.34	\$ 37,407.98	\$ 72,740.49	\$ 684,216.96
May 2040	667,627.61	36,001.73	70,485.04	668,472.08
June 2040	654,076.54	34,645.97	68,294.52	653,046.70
July 2040	640,756.45	33,338.94	66,167.14	637,934.75
August 2040	627,663.71	32,078.94	64,101.16	623,130.29
September 2040	614,794.74	30,864.33	62,094.86	608,627.45
October 2040	602,146.04	29,693.53	60,146.62	594,420.49
November 2040	589,714.14	28,565.00	58,254.80	580,503.77
December 2040	577,495.61	27,477.28	56,417.85	566,871.76
January 2041	565,487.11	26,428.92	54,634.25	553,519.02
February 2041	553,685.31	25,418.56	52,902.52	540,440.21
March 2041	542,086.97	24,444.86	51,221.21	527,630.10
April 2041	530,688.85	23,506.53	49,588.91	515,083.56
May 2041	519,487.81	22,602.34	48,004.27	502,795.52
June 2041	508,480.72	21,731.09	46,465.96	490,761.03
July 2041	497,664.51	20,891.61	44,972.68	478,975.24
August 2041	487,036.16	20,082.79	43,523.18	467,433.36
September 2041	476,592.69	19,303.55	42,116.23	456,130.72
October 2041	466,331.17	18,552.84	40,750.64	445,062.70
November 2041	456,248.70	17,829.66	39,425.26	434,224.80
December 2041	446,342.45	17,133.04	38,138.95	423,612.58
January 2042	436,609.61	16,462.03	36,890.63	413,221.69
February 2042	427,047.41	15,815.74	35,679.23	403,047.86
March 2042	417,653.14	15,193.28	34,503.71	393,086.90
April 2042	408,424.13	14,593.81	33,363.05	383,334.69
May 2042	399,357.73	14,016.52	32,256.28	373,787.19
June 2042	390,451.35	13,460.61	31,182.45	364,440.44
July 2042	381,702.43	12,925.33	30,140.62	355,290.55
August 2042	373,108.45	12,409.93	29,129.89	346,333.70
September 2042	364,666.93	11,913.73	28,149.39	337,566.14
October 2042	356,375.43	11,436.02	27,198.25	328,984.20
November 2042	348,231.53	10,976.14	26,275.64	320,584.25
December 2042	340,232.88	10,533.47	25,380.77	312,362.76
January 2043	332,377.13	10,107.39	24,512.83	304,316.24
February 2043	324,661.99	9,697.29	23,671.06	296,441.29
March 2043	317,085.19	9,302.61	22,854.73	288,734.55
April 2043	309,644.50	8,922.79	22,063.10	281,192.74
May 2043	302,337.74	8,557.31	21,295.47	273,812.63
June 2043	295,162.73	8,205.64	20,551.16	266,591.05
July 2043	288,117.35	7,867.28	19,829.50	259,524.89
August 2043	281,199.50	7,541.76	19,129.85	252,611.10
September 2043	274,407.12	7,228.61	18,451.56	245,846.69
October 2043	267,738.18	6,927.39	17,794.04	239,228.72
November 2043	261,190.66	6,637.66	17,156.69	232,754.31
December 2043	254,762.61	6,359.00	16,538.92	226,420.63
January 2044	248,452.07	6,091.02	15,940.17	220,224.90
February 2044	242,257.15	5,833.33	15,359.89	214,164.40

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
March 2044	\$ 236,175.95	\$ 5,585.55	\$ 14,797.56	\$ 208,236.45
April 2044	230,206.62	5,347.33	14,252.66	202,438.44
May 2044	224,347.34	5,118.30	13,724.67	196,767.78
June 2044	218,596.30	4,898.15	13,213.12	191,221.95
July 2044	212,951.75	4,686.53	12,717.52	185,798.47
August 2044	207,411.93	4,483.15	12,237.42	180,494.92
September 2044	201,975.14	4,287.69	11,772.35	175,308.89
October 2044	196,639.68	4,099.87	11,321.90	170,238.06
November 2044	191,403.88	3,919.41	10,885.62	165,280.13
December 2044	186,266.12	3,746.03	10,463.11	160,432.83
January 2045	181,224.77	3,579.48	10,053.96	155,693.95
February 2045	176,278.25	3,419.50	9,657.79	151,061.34
March 2045	171,425.00	3,265.85	9,274.21	146,532.85
April 2045	166,663.48	3,118.29	8,902.85	142,106.40
May 2045	161,992.17	2,976.60	8,543.36	137,779.94
June 2045	157,409.57	2,840.56	8,195.38	133,551.45
July 2045	152,914.23	2,709.96	7,858.59	129,418.97
August 2045	148,504.69	2,584.60	7,532.64	125,380.56
September 2045	144,179.53	2,464.28	7,217.22	121,434.31
October 2045	139,937.35	2,348.81	6,912.01	117,578.37
November 2045	135,776.76	2,238.01	6,616.72	113,810.91
December 2045	131,696.42	2,131.71	6,331.05	110,130.13
January 2046	127,694.97	2,029.73	6,054.71	106,534.28
February 2046	123,771.10	1,931.92	5,787.43	103,021.62
March 2046	119,923.53	1,838.12	5,528.93	99,590.48
April 2046	116,150.96	1,748.17	5,278.95	96,239.18
May 2046	112,452.14	1,661.93	5,037.25	92,966.09
June 2046	108,825.84	1,579.25	4,803.56	89,769.62
July 2046	105,270.84	1,500.02	4,577.66	86,648.21
August 2046	101,785.94	1,424.08	4,359.30	83,600.31
September 2046	98,369.95	1,351.32	4,148.26	80,624.41
October 2046	95,021.72	1,281.61	3,944.32	77,719.04
November 2046	91,740.11	1,214.84	3,747.26	74,882.75
December 2046	88,523.98	1,150.90	3,556.88	72,114.11
January 2047	85,372.23	1,089.67	3,372.97	69,411.72
February 2047	82,283.77	1,031.06	3,195.34	66,774.22
March 2047	79,257.52	974.95	3,023.79	64,200.26
April 2047	76,292.43	921.26	2,858.14	61,688.53
May 2047	73,387.45	869.89	2,698.21	59,237.73
June 2047	70,541.57	820.75	2,543.83	56,846.61
July 2047	67,753.77	773.75	2,394.82	54,513.90
August 2047	65,023.06	728.81	2,251.02	52,238.40
September 2047	62,348.47	685.84	2,112.27	50,018.92
October 2047	59,729.03	644.78	1,978.41	47,854.27
November 2047	57,163.80	605.54	1,849.29	45,743.31
December 2047	54,651.84	568.06	1,724.76	43,684.92
January 2048	52,192.24	532.26	1,604.69	41,677.98

<u>Distribution Date</u>	<u>Classes PD, PL and PY (in the aggregate)</u>	<u>Classes MA and ZM (in the aggregate)</u>	<u>Classes KB and ZK (in the aggregate)</u>	<u>Classes KA and KZ (in the aggregate)</u>
February 2048	\$ 49,784.10	\$ 498.08	\$ 1,488.93	\$ 39,721.42
March 2048	47,426.53	465.46	1,377.35	37,814.17
April 2048	45,118.66	434.32	1,269.82	35,955.18
May 2048	42,859.62	404.61	1,166.21	34,143.45
June 2048	40,648.57	376.28	1,066.40	32,377.95
July 2048	38,484.67	349.27	970.26	30,657.73
August 2048	36,367.12	323.53	877.69	28,981.79
September 2048	34,295.09	298.99	788.56	27,349.22
October 2048	32,267.79	275.63	702.78	25,759.07
November 2048	30,284.45	253.38	620.23	24,210.44
December 2048	28,344.30	232.20	540.81	22,702.44
January 2049	26,446.57	212.05	464.43	21,234.20
February 2049	24,590.53	192.89	390.97	19,804.86
March 2049	22,775.43	174.67	320.36	18,413.59
April 2049	21,000.57	157.36	252.49	17,059.55
May 2049	19,265.22	140.92	187.28	15,741.95
June 2049	17,568.70	125.31	124.65	14,459.98
July 2049	15,910.31	110.50	64.50	13,212.89
August 2049	14,289.38	96.45	6.76	11,999.91
September 2049	12,705.24	83.13	0.00	10,820.29
October 2049	11,157.24	70.52	0.00	9,673.31
November 2049	9,644.74	58.57	0.00	8,558.25
December 2049	8,167.09	47.27	0.00	7,474.40
January 2050	6,723.69	36.59	0.00	6,421.08
February 2050	5,313.90	26.49	0.00	5,397.63
March 2050	3,937.14	16.95	0.00	4,403.37
April 2050	2,592.80	7.95	0.00	3,437.66
May 2050	1,280.30	0.00	0.00	2,499.86
June 2050	0.00	0.00	0.00	1,589.36
July 2050	0.00	0.00	0.00	705.54
August 2050 and thereafter	0.00	0.00	0.00	0.00

Underlying Certificates

Trust Asset Group or Subgroup	Issuer	Series	Class	Issue Date	CUSIP Number	Interest Rate	Interest Type(I)	Final Distribution Date	Principal Type(I)	Original Principal or Notional Balance of Class	Underlying Certificate Factor(2)	Principal or Notional Balance in Trust	Percentage of Class in Trust	Ginnie Mae I or II
3	Ginnie Mae	2019-129	F	October 30, 2019	38381V789	(G)	FLT	October 2049	PT	\$ 50,000,000	0.96855062	\$48,426,531	100.0000000000%	II
4	Ginnie Mae	2015-060	ID	April 30, 2015	38379LR6	4.00%	FIX/IO	April 2045	NTL(PAC/AD)	21,084,857	0.44561860	9,395,804	100.0000000000	II
4	Ginnie Mae	2016-146	IO	October 28, 2016	38380AS73	4.00%	FIX/IO	October 2046	NTL(PT)	16,469,277	0.45264823	7,454,789	100.0000000000	II
4	Ginnie Mae	2017-045	IM(4)	March 30, 2017	38376UEA3	4.00	FIX/IO	October 2044	NTL(SCH/SEQ/AD)	25,312,500	0.55689703	1,174,496	8.3318518519	II
4	Ginnie Mae	2017-068	IK(5)	May 30, 2017	38376UJ23	4.00	FIX/IO	September 2046	NTL(SC/PT)	18,212,915	0.53625114	6,924,565	70.8997708494	II
4	Ginnie Mae	2017-153	GI(4)	October 30, 2017	38380HD25	4.00	FIX/IO	September 2047	NTL(PAC/AD)	64,578,000	0.69841236	9,092,980	20.1608907058	II
4	Ginnie Mae	2017-163	JL	November 30, 2017	38380KPE9	4.00	FIX/IO	July 2047	NTL(PAC I)	5,206,187	0.74883538	3,898,577	100.0000000000	II
4	Ginnie Mae	2017-180	JI	December 29, 2017	38380IDN0	4.00	FIX/IO	April 2047	NTL(PAC)	3,125,000	0.72488902	1,699,865	75.0400000000	II
5A	Ginnie Mae	2004-105	FN	December 30, 2004	38374KGP2	(G)	FLT	December 2034	PT	30,000,000	0.02779228	166,590	100.0000000000	II
5A	Ginnie Mae	2010-113	DF	September 30, 2010	38377WK57	(G)	FLT	November 2039	PAC/AD	71,124,107	0.03331808	3,872,531	7.0299652409	II
5A	Ginnie Mae	2011-094	FG	July 29, 2011	38377XC91	(G)	FLT	July 2041	PT	64,665,370	0.09763002	179,198	61.3394309814	II
5A	Ginnie Mae	2011-133	MF(6)	September 30, 2011	38378C2G1	(G)	FLT	September 2041	PT	12,388,200	0.05064671	26,046	28.5610500315	II
5A	Ginnie Mae	2012-012	HF(4(7))	January 30, 2012	38378EP80	(G)	FLT	January 2042	SC/PT	29,277,661	0.10418383	4,742,702	0.8538953489	II
5A	Ginnie Mae	2012-061	FDX(4)	May 30, 2012	38378RC99	(G)	FLT	May 2012	PT	39,189,102	0.12102096	26,046	100.0000000000	II
5A	Ginnie Mae	2019-020	FE(4)	February 28, 2019	38378WZ56	(G)	FLT	February 2049	PT/PAC/AD	326,853,618	0.20057648	489,556	0.2141631487	II
5B	Ginnie Mae	2011-146	DF	July 29, 2011	38378RC99	(G)	FLT	July 2041	PT	106,436,781	0.20880785	1,960,635	9.1838553441	II
5B	Ginnie Mae	2009-089	AF(4)	October 30, 2009	38376C3V9	(G)	FIX	November 2041	PT	50,000,000	0.04195019	5,220,196	50.0000000000	I
6	Ginnie Mae	2019-078	EA(4)	August 30, 2019	38377IQQ9	4.50	FIX	February 2049	PAC I	204,000,000	0.75335847	11,518,362	49.0196078431	I
7	Ginnie Mae	2020-085	ED	June 28, 2020	38381WVZ5	2.00	FIX	August 2040	PT	86,764,440	0.78330872	58,774,457	86.4686062631	II
10A	Ginnie Mae	2020-046	NA(4)	June 28, 2020	38382FWL4	1.25	FIX	June 2050	SEQ	4,079,247	1.00000000	4,079,247	100.0000000000	I/II
10B	Ginnie Mae	2020-046	MB	April 30, 2020	38382C3X7	2.25	FIX	April 2050	SEQ	1,026,122	1.00000000	1,026,122	100.0000000000	I
10C	Ginnie Mae	2020-009	LY	January 30, 2020	38382CFB9	4.00	FIX/IO	December 2049	NTL(SC/PT)	99,286,302	0.64829317	3,565,612	5.5295555545	II
10D	Ginnie Mae	2020-063	CI(6)(8)	May 29, 2020	38382FFW9	4.00	FIX/IO	May 2050	NTL(PT)	54,753,439	0.98181853	3,927,274	7.3054771957	II
12	Ginnie Mae	2010-061	HE(4)	May 28, 2010	38377FGN5	5.00	FIX	May 2040	PAC/AD	21,204,000	0.80359830	17,039,498	100.0000000000	II

- (1) As defined under "Class Types" in Appendix I to the Base Offering Circular.
- (2) Underlying Certificate Factors are as of September 2020.
- (3) The Interest Rate will be calculated as described under "Terms Sheet — Interest Rates" in the related Underlying Certificate Disclosure Document.
- (4) MX Class.
- (5) Class IK is backed by previously issued Ginnie Mae REMIC and MX certificates, as outlined below:
 - MX Class KI from 2015-113
 - REMIC Class IN from 2016-146
- (6) More than 10% of the Mortgage Loans underlying this Underlying Certificate may be higher balance Mortgage Loans. See "Risk Factors" in this Supplement.
- (7) Class HF is backed by a previously issued Ginnie Mae MX certificate, as outlined below:
 - MX Class DF from 2011-153

(8) Class CI is backed by previously issued Ginnie Mae REMIC and MX certificates, which are further backed by previously issued Ginnie Mae REMIC and MX certificates, as outlined below:

- MX Class IO from 2019-084
- MX Class EI from 2019-125
- REMIC Class NI from 2019-133, further backed by:
 - MX Class IM from 2019-085
 - REMIC Class IO from 2019-085
 - REMIC Class MI from 2019-085
 - REMIC Class HI from 2019-103
 - MX Class IO from 2019-106
- MX Class LI from 2019-138
- REMIC Class HI from 2019-153



\$1,652,427,579

**Government National
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**Guaranteed REMIC Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2020-133**

OFFERING CIRCULAR SUPPLEMENT
September 24, 2020

**Citigroup
Academy Securities**