

# \$756,221,828 Government National Mortgage Association GINNIE MAE®

# Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2020-187

#### 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) a certain previously issued certificate.

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-12 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 December 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 "exempted securities" under the Securities Exchange Act of 1934.

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 1	A 64 #60 600		700		202027 5770	
FA	\$ 61,568,688 61,568,688	(5) (5)	PT NTL(PT)	FLT INV/IO	38382LZU8 38382LZV6	December 2050 December 2050
Security Group 2						
IA(1)	8,004,449 39,905,694	3.00% 1.00	NTL(PT) PAC/AD	FIX/IO FIX	38382LZW4 38382LZX2	December 2050 December 2050
PB	19,952,847	3.00	NTL(PAC/AD)	FIX/IO	38382LZY0	December 2050
Z	8,121,005	2.50	SUP	FIX/Z	38382LZZ7	December 2050
Security Group 3	7,132,000	1.25	PAC	FIX	38382LA27	December 2050
GAGD	9,701,959	5.50	l PT	FIX	38382LA35	December 2050
GU	1,491,964	1.25	SUP	FIX	38382LA43	December 2050
Security Group 4	12 475 916	1.25	PT	EIV	202021 450	D
NE	12,475,816 6,237,908	1.25 2.50	NTL(PT)	FIX FIX/IO	38382LA50 38382LA68	December 2050 December 2050
Security Group 5			. /			
DP(1)	95,765,851	2.50	PAC	FIX	38382LA76	December 2050
DU(1) EP(1)	14,817,546 164,035,857	2.50 2.50	SUP PAC	FIX FIX	38382LA84 38382LA92	December 2050 December 2050
EU(1)	25,380,746	2.50	SUP	FIX	38382LB26	December 2050
Security Group 6		4.00	21012			
MA	25,671,000 17,130,983	1.00 3.00	PAC/AD NTL(PAC/AD)	FIX FIX/IO	38382LB34 38382LB42	December 2050 December 2050
MZ	25,475	1.00	PAC/AD	FIX/Z	38382LB59	December 2050
ZM	1,584,958	3.00	SUP	FIX/Z	38382LB67	December 2050
Security Group 7	192,000	2.50	SUP	FIX/Z	38382LB75	December 2050
AZ	91,000	2.50	SUP	FIX/Z	38382LB83	December 2050
CZ	45,259	2.50	SC/SUP	FIX/Z	38382LB91	March 2050
HA(1)	688,000 324,000	2.50 2.50	PAC/AD PAC/AD	FIX FIX	38382LC25 38382LC33	December 2050 December 2050
HB(1) HC(1)	238,000	2.50	SC/PAC/AD	FIX	38382LC41	March 2050
Ш	146,666	3.00	NTL(PT)	FIX/IO	38382LC58	December 2050
<u>IH</u>	69,166	3.00	NTL(PT)	FIX/IO	38382LC66	December 2050
Security Group 8 WA	12,683,988	(5)	PT	WAC/DLY	38382LC74	July 2041
Security Group 9	57 624 600	(5)	DVII.	ET III	202021 502	D 1 2050
FLLA	57,634,680 100,860,693	(5) 1.00	PT PT	FLT FIX	38382LC82 38382LC90	December 2050 December 2050
SB(1)	18,786,682	(5)	NTL(PT)	INV/IO	38382LD24	December 2050
SC(1)	11,594,409 27,253,589	(5)	NTL(PT) NTL(PT)	INV/IO INV/IO	38382LD32 38382LD40	December 2050 December 2050
Security Group 10	21,233,369	(3)	NIL(FI)	1111/10	36362LD40	December 2030
FJ	24,127,322	(5) (5)	PT	FLT	38382LD57	December 2050
SJ	24,127,322	(5)	NTL(PT)	INV/IO	38382LD65	December 2050
Security Group 11 FQ	19,338,327	(5)	PT	FLT	38382LD73	December 2050
SQ	19,338,327	(5)	NTL(PT)	INV/IO	38382LD81	December 2050
Security Group 12						
KA(1)	62,165,000	2.00	PAC/AD	FIX	38382LD99	December 2050
KI KZ	24,106,666 155,000	3.00 2.00	NTL(PT) PAC/AD	FIX/IO FIX/Z	38382LE23 38382LE31	December 2050 December 2050
ZK	10,000,000	2.00	SUP	FIX/Z	38382LE49	December 2050
Residuals						
R1	0	0.00	NPR	NPR	38382LE56	December 2050
RR2	0	0.00	NPR NPR	NPR NPR	38382LE64 38382LE72	December 2050 December 2050
R4	0	0.00	NPR	NPR	38382LE80	December 2050
R5	0 0	0.00	NPR NPR	NPR NPR	38382LE98 38382LF22	December 2050
R7	0	0.00	NPR NPR	NPR NPR	38382LF22 38382LF30	December 2050 December 2050
R8	0	0.00	NPR	NPR	38382LF48	July 2041
R9	0 0	0.00	NPR NPR	NPR NPR	38382LF55 38382LF63	December 2050 December 2050
R10	0	0.00	NPR	NPR	38382LF71	December 2050
R12	l ő	0.00	NPR	NPR	38382LF89	December 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.

# Goldman Sachs & Co. LLC

Ramirez & Co., Inc.

#### **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 7 securities, the disclosure document relating to the Underlying Certificate (the "Underlying Certificate Disclosure Document").

The Base Offering Circular and the Underlying Certificate Disclosure Document 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.

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#### **TERMS SHEET**

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

**Sponsor:** Goldman Sachs & Co. LLC

**Co-Sponsor:** Samuel A. Ramirez & Company, Inc.

Trustee: U.S. Bank National Association

**Tax Administrator:** The Trustee **Closing Date:** December 30, 2020

**Distribution Dates:** For the Group 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12 Securities, the 20th day of each month or, if the 20th day is not a Business Day, the first Business Day thereafter, commencing in January 2021. For the Group 8 Securities, the 16th day of each month or, if the 16th day is not a Business Day, the first Business Day thereafter, commencing in January 2021.

# **Trust Assets:**

Trust Asset Group or Subgroup <sup>(2)</sup>	Trust Asset Type	Certificate Rate	Original Term To Maturity (in years)
1	Ginnie Mae II	4.000%	30
2	Ginnie Mae II	3.000%	30
3	Ginnie Mae II	3.500%	30
4	Ginnie Mae II	2.500%	30
5A	Ginnie Mae II	2.500%	30
5B	Ginnie Mae II	2.500%	30
6	Ginnie Mae II	3.000%	30
7A	Ginnie Mae II	3.000%	30
7B	Ginnie Mae II	3.000%	30
7C	<b>Underlying Certificate</b>	(1)	(1)
8	Ginnie Mae I	3.754%(3)	30
9A	Ginnie Mae II	3.000%	30
9B	Ginnie Mae II	3.000%	30
9C	Ginnie Mae II	3.000%	30
10	Ginnie Mae II	4.500%	30
11	Ginnie Mae II	5.000%	30
12	Ginnie Mae II	3.000%	30

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

<sup>(2)</sup> The Group 5, 7 and 9 Trust Assets consist of the enumerated subgroups (each, a "Subgroup").

<sup>(3)</sup> The Ginnie Mae I MBS Certificates that constitute the Group 8 Trust Assets have Certificate Rates ranging from 3.625% to 3.875%. The Weighted

Average Certificate Rate shown for the Group 8 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. Payments on each Group will be based solely on payments on the Trust Asset Group with the same numerical designation.

Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets<sup>(1)</sup>:

Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate <sup>(2)</sup>
<b>Group 1 Trust Assets</b>			
\$61,568,688	346	14	4.512%
<b>Group 2 Trust Assets</b> \$48,026,699	355	4	3.490%
<b>Group 3 Trust Assets</b> \$18,325,923	359	1	3.812%
<b>Group 4 Trust Assets</b> \$12,475,816 <sup>(3)</sup>	358	1	2.872%
Subgroup 5A Trust Assets \$110,583,397	358	1	2.910%
Subgroup 5B Trust Assets \$189,416,603	358	1	2.910%
Group 6 Trust Assets \$27,281,433	352	4	3.480%
<b>Subgroup 7A Trust Assets</b> \$880,000 <sup>(3)</sup>	357	3	3.461%
<b>Subgroup 7B Trust Assets</b> \$415,000	356	3	3.557%
<b>Subgroup 9A Trust Assets</b> \$74,947,371	357	2	3.443%
<b>Subgroup 9B Trust Assets</b> \$51,663,376	357	2	3.443%
<b>Subgroup 9C Trust Assets</b> \$31,884,626	357	2	3.443%
<b>Group 10 Trust Assets</b> \$24,127,322	338	22	5.246%
<b>Group 11 Trust Assets</b> \$19,338,327	338	21	5.259%
<b>Group 12 Trust Assets</b> \$72,320,000	357	2	3.420%
(1) As of December 1, 2020.			

<sup>&</sup>lt;sup>1)</sup> As of December 1, 2020.

- (2) The Mortgage Loans underlying the Group 1, 2, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.
- (3) More than 10% of the Mortgage Loans underlying the Group 4 and Subgroup 7A Trust Assets may be higher balance Mortgage Loans. *See "Risk Factors" in this Supplement.*

The actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans underlying the Group 1, 2, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets will differ from the weighted averages shown above, perhaps significantly. See "The Trust Assets — The Mortgage Loans" in this Supplement.

# Characteristics of the Mortgage Loans Underlying the Group 8 Trust Assets<sup>(1)</sup>:

Pool Number	Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate
380439 \$	776,769.59	242	114	4.375%
382251	356,887.09	243	115	4.250
474772	486,772.44	240	114	4.375
544108	194,812.31	241	114	4.250
544272	236,456.82	245	114	4.375
544335	258,498.86	242	114	4.375
762701	195,509.10	237	119	4.250
762704	145,386.86	230	122	4.125
762750	617,871.10	239	118	4.125
762952	731,685.83	241	117	4.125
762974	290,665.68	237	117	4.125
763022	749,851.89	232	116	4.125
763026	384,890.73	238	116	4.250
763139	568,108.52	243	116	4.125
763141	231,407.20	235	116	4.250
763182	217,689.77	242	116	4.250
763240	470,597.90	242	116	4.250
763361	266,106.83	244	116	4.125
763363	199,866.67	237	116	4.375
763365	179,196.55	242	115	4.250
770588	145,662.49	245	114	4.375
770682	446,256.31	241	116	4.125
770683	541,472.21	231	116	4.250
770685	315,640.93	242	115	4.375
770750	674,055.21	237	114	4.375
770751	1,201,495.45	239	116	4.250
770880	274,751.84	234	115	4.375
770882	521,705.32	224	116	4.250
770910	879,132.65	232	114	4.375
770911	124,784.60	244	116	4.250
\$	12,683,988.75			

<sup>(1)</sup> As of December 1, 2020.

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

**Characteristics of the Subgroup 7C Trust Asset:** See Exhibit A to this Supplement for certain information regarding the characteristics of the Underlying Certificate.

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

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

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

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

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

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	LIBOR for Minimum Interest Rate
Security Group 1						
FA	LIBOR + 0.30%	0.459%	0.30%	4.00%	0	0.00%
SA	3.70% – LIBOR	3.541%	0.00%	3.70%	0	3.70%
Security Group 9						
FL	LIBOR + 0.20%	0.359%	0.20%	6.50%	0	0.00%
SB	6.30% – LIBOR	6.141%	0.00%	6.30%	0	6.30%
SC	6.30% – LIBOR	6.141%	0.00%	6.30%	0	6.30%
SE	6.30% – LIBOR	6.141%	0.00%	6.30%	0	6.30%
SL	6.30% – LIBOR	6.141%	0.00%	6.30%	0	6.30%
Security Group 10						
FJ	LIBOR + 0.25%	0.409%	0.25%	4.50%	0	0.00%
SJ	4.25% – LIBOR	4.091%	0.00%	4.25%	0	4.25%
Security Group 11						
FQ	LIBOR + 0.25%	0.409%	0.25%	5.00%	0	0.00%
SQ	4.75% – LIBOR	4.591%	0.00%	4.75%	0	4.75%

<sup>(1)</sup> LIBOR will be established as described under "Description of the Securities — Interest Distributions — Floating Rate and Inverse Floating Rate Classes" in this Supplement.

<sup>(2)</sup> The initial Interest Rate will be in effect during the first Accrual Period; the Interest Rate will adjust monthly thereafter.

Class WA is a Weighted Average Coupon Class that will accrue interest during each Accrual Period at a per annum Interest Rate equal to the Weighted Average Certificate Rate ("WACR") of the Group 8 Trust Assets for that Accrual Period. The approximate initial Interest Rate for Class WA, which will be in effect for the first Accrual Period, is 3.75425%.

**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 to FA, until retired

#### **SECURITY GROUP 2**

The Group 2 Principal Distribution Amount and the Z Accrual Amount will be allocated in the following order of priority:

- 1. To PB, until reduced to its Scheduled Principal Balance for that Distribution Date
- 2. To Z, until retired
- 3. To PB, without regard to its Scheduled Principal Balance, until retired

#### **SECURITY GROUP 3**

The Group 3 Principal Distribution Amount will be allocated as follows:

- 52.9411751866% to GD, until retired
- 47.0588248134% in the following order of priority:
  - 1. To GA, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To GU, until retired
  - 3. To GA, without regard to its Scheduled Principal Balance, until retired

#### **SECURITY GROUP 4**

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

# **SECURITY GROUP 5**

The Subgroup 5A Principal Distribution Amount and the Subgroup 5B Principal Distribution Amount will be allocated as follows:

- The Subgroup 5A Principal Distribution Amount in the following order of priority:
  - 1. To DP, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To DU, until retired
  - 3. To DP, without regard to its Scheduled Principal Balance, until retired

- The Subgroup 5B Principal Distribution Amount in the following order of priority:
  - 1. To EP, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To EU, until retired
  - 3. To EP, without regard to its Scheduled Principal Balance, until retired

#### **SECURITY GROUP 6**

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

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

#### **SECURITY GROUP 7**

The Subgroup 7A Principal Distribution Amount, the Subgroup 7B Principal Distribution Amount, the Subgroup 7C Principal Distribution Amount, the AZ Accrual Amount, the BZ Accrual Amount and the CZ Accrual Amount will be allocated as follows:

- The Subgroup 7A Principal Distribution Amount and the AZ Accrual Amount in the following order of priority:
  - 1. To HA, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To AZ, until retired
  - 3. To HA, without regard to its Scheduled Principal Balance, until retired
- The Subgroup 7B Principal Distribution Amount and the BZ Accrual Amount in the following order of priority:
  - 1. To HB, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To BZ, until retired
  - 3. To HB, without regard to its Scheduled Principal Balance, until retired
- The Subgroup 7C Principal Distribution Amount and the CZ Accrual Amount in the following order of priority:
  - 1. To HC, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To CZ, until retired
  - 3. To HC, without regard to its Scheduled Principal Balance, until retired

#### **SECURITY GROUP 8**

The Group 8 Principal Distribution Amount will be allocated to WA, until retired

#### **SECURITY GROUP 9**

The Subgroup 9A Principal Distribution Amount, the Subgroup 9B Principal Distribution Amount and the Subgroup 9C Principal Distribution Amount will be allocated as follows:

- 63.6363642428% of the Subgroup 9A Principal Distribution Amount, 63.6363639883% of the Subgroup 9B Principal Distribution Amount and 63.6363650620% of the Subgroup 9C Principal Distribution Amount to LA, until retired
- The remainder of the Subgroup 9A Principal Distribution Amount, the remainder of the Subgroup 9B Principal Distribution Amount and the remainder of the Subgroup 9C Principal Distribution Amount to FL, until retired

# **SECURITY GROUP 10**

The Group 10 Principal Distribution Amount will be allocated to FJ, until retired

#### **SECURITY GROUP 11**

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

#### **SECURITY GROUP 12**

The Group 12 Principal Distribution Amount, the KZ Accrual Amount and the ZK Accrual Amount will be allocated as follows:

- The KZ Accrual Amount to KA, until retired, and then to KZ
- The Group 12 Principal Distribution Amount and the ZK 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 ZK, until retired
- 3. Sequentially, to KA and KZ, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

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

Security Gro	<u>up</u>	Structuring Ranges
	PAC Classes	
2	PB	150% PSA through 280% PSA
3	GA	350% PSA through 550% PSA
5	DP	200% PSA through 300% PSA
5	EP	200% PSA through 300% PSA
6	MA and MZ (in the aggregate)	290% PSA through 350% PSA
7	HA	150% PSA through 330% PSA
7	НВ	150% PSA through 330% PSA
7	HC	150% PSA through 270% PSA
12	KA and KZ (in the aggregate)	187% 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 balance of the related Trust Asset Group, Subgroup or Subgroups indicated:

Class	Original Class Notional Balance	Represents Approximately
Security Group 1		
SA	\$ 61,568,688	100% of FA (PT Class)
Security Group 2		
IA	\$ 8,004,449	16.6666666667% of the Group 2 Trust Assets
IO	\$ 8,004,449	16.6666666667% of the Group 2 Trust Assets
	19,952,847	50% of PB (PAC/AD Class)
	\$ 27,957,296	
PI	\$ 19,952,847	50% of PB (PAC/AD Class)
Security Group 4		
NI	\$ 6,237,908	50% of NE (PT Class)
Security Group 5		
AI	\$ 77,408,377	70% of the Subgroup 5A Trust Assets
BI	132,591,621	70% of the Subgroup 5B Trust Assets
CI	209,999,998	70% of the Group 5 Trust Assets
DI	67,036,095	70% of DP (PAC Class)
EI	114,825,099	70% of EP (PAC Class)
UI	10,372,282	70% of DU (SUP Class)
YI	17,766,522	70% of EU (SUP Class)

Class	Original Class Notional Balance	Represents Approximately
Security Group 6		
MI	\$ 17,130,983	66.666666667% of MA and MZ (in the aggregate) (PAC/AD Classes)
Security Group 7		
НІ	\$ 146,666	16.6666666667% of the Subgroup 7A Trust Assets
IH	69,166	16.6666666667% of the Subgroup 7B Trust Assets
Security Group 9		•
SB	\$ 18,786,682	36.3636363636% of the Subgroup 9B Trust Assets
SC	11,594,409	36.3636363636% of the Subgroup 9C Trust Assets
SE	27,253,589	36.3636363636% of the Subgroup 9A Trust Assets
SL	\$ 27,253,589	36.3636363636% of the Subgroup 9A Trust Assets
	18,786,682	36.3636363636% of the Subgroup 9B Trust Assets
	11,594,409	36.3636363636% of the Subgroup 9C Trust Assets
	\$ 57,634,680	
Security Group 10		
SJ	\$ 24,127,322	100% of FJ (PT Class)
Security Group 11	. ,	•
SQ	\$ 19,338,327	100% of FQ (PT Class)
Security Group 12		-
IP	\$ 31,082,500	50% of KA (PAC/AD Class)
KI	24,106,666	33.33333333333% of the Group 12 Trust Assets

Tax Status: Single REMIC Series as to the Group 1 Trust Assets (the "Group 1 REMIC"), the Group 3 Trust Assets (the "Group 3 REMIC"), the Group 4 Trust Assets (the "Group 4 REMIC"), the Group 5 Trust Assets (the "Group 5 REMIC"), the Group 7 Trust Assets (the "Group 7 REMIC"), the Group 8 Trust Assets (the "Group 8 REMIC"), the Group 9 Trust Assets (the "Group 9 REMIC"), the Group 10 Trust Assets (the "Group 10 REMIC"), the Group 11 Trust Assets (the "Group 11 REMIC") and the Group 12 Trust Assets (the "Group 12 REMIC"). Double REMIC Series as to the Group 2 Trust Assets and the Group 6 Trust Assets. Separate REMIC elections will be made as to the Group 1 REMIC, the Issuing REMIC and the Pooling REMIC with respect to the Group 2 Trust Assets (the "Group 2 Issuing REMIC" and the "Group 2 Pooling REMIC", respectively), the Group 3 REMIC, the Group 4 REMIC, the Group 5 REMIC, the Issuing REMIC and the "Group 6 Pooling REMIC with respect to the Group 6 Trust Assets (the "Group 8 REMIC, the Group 9 REMIC, the Group 10 REMIC", respectively), the Group 7 REMIC, the Group 8 REMIC, the Group 9 REMIC, the Group 10 REMIC, the Group 11 REMIC and the Group 12 REMIC. See "Certain United States Federal Income Tax Consequences" in this Supplement and in the Base Offering Circular.

**Regular and Residual Classes:** Classes R1, RR2, R3, R4, R5, RR6, R7, R8, R9, R10, R11 and R12 are Residual Classes. Class R1 represents the Residual Interest of the Group 1 REMIC. Class RR2 represents the Residual Interest of the Group 3 REMIC. Class R4 represents the Residual Interest of the Group 4 REMIC. Class R5 represents the Residual Interest of the Group 5 REMIC. Class RR6 represents the Residual Interest of the Group 6 Issuing and Pooling REMICs. Class R7 represents the Residual Interest of the Group 7 REMIC. Class R8 represents the Residual Interest of the Group 8 REMIC. Class R9 represents the Residual Interest of the Group 9 REMIC. Class R10 represents the Residual Interest of the Group 10 REMIC. Class R11 represents the Residual Interest of the Group 11 REMIC. Class R12 represents the Residual Interest of the Group 12 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 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 will affect the yields on floating rate and inverse floating rate securities. If LIBOR performs differently from what you expect, the yield on the floating rate and inverse floating rate securities may be lower than you expect. Lower levels of LIBOR will generally reduce the yield on floating rate securities; higher levels of LIBOR will generally reduce the yield on inverse floating rate securities. You should bear in mind that the timing of changes in the level of LIBOR may affect your yield: generally, the earlier a change, the greater the effect on your yield. It is doubtful that LIBOR will remain constant.

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

Support securities will be more sensitive to rates of principal payments than other securities. If principal prepayments result in principal distributions on any distribution date equal to or less than the amount needed to produce scheduled payments on the PAC classes, the related support 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 certificate will directly affect the rate of payments on the group 7 securities. The underlying certificate will be sensitive to the rate of payments of principal (including prepayments) of the related mortgage loans.

This supplement contains no information as to whether the underlying certificate has performed as originally anticipated. Additional information as to the underlying certificate may be obtained by performing an analysis of current principal factor of the underlying certificate in light of applicable information contained in the underlying certificate disclosure document.

Up to 10% of the mortgage loans underlying the group 1, 2, 3, 5, 6, 8, 9, 10, 11 and 12 and subgroup 7B trust assets and up to 100% of

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

Changes to, 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 continued 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").

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.

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 thencurrent 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.

The securities may not be a suitable investment for you. The securities, especially the group 7 securities and, in particular, the support, interest only, accrual and residual classes, are not suitable investments for all investors.

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

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

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

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

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

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

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

#### THE TRUST ASSETS

# General

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

# The Trust MBS (Groups 1, 2, 3, 4, 5, 6, 8, 9, 10, 11 and 12 and Subgroups 7A and 7B)

The Group 8 Trust Assets are either:

1. Ginnie Mae I MBS Certificates guaranteed by Ginnie Mae, or

2. Ginnie Mae Platinum Certificates backed by Ginnie Mae I MBS Certificates and guaranteed by Ginnie Mae.

Each Mortgage Loan underlying a Ginnie Mae I MBS Certificate bears interest at a Mortgage Rate 0.50% per annum greater than the related Certificate Rate. The difference between the Mortgage Rate and the Certificate Rate is used to pay the related servicers of the Mortgage Loans a monthly servicing fee and Ginnie Mae a fee for its guaranty of the Ginnie Mae I MBS Certificate of 0.44% per annum and 0.06% per annum, respectively, of the outstanding principal balance of the Mortgage Loan.

The Group 1, 2, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets 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 Certificate (Subgroup 7C)

The Subgroup 7C Trust Asset is an Underlying Certificate that represents beneficial ownership interests in a separate trust, the assets of which evidence direct or indirect beneficial ownership interests in certain Ginnie Mae Certificates. The Underlying Certificate constitutes all or a portion of a class of a separate Series of certificates described in the Underlying Certificate Disclosure Document. The 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 the 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.

The 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, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans underlying the Group 8 Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under "Characteristics of the Mortgage Loans Underlying the Group 8 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, in the case of the Group 1, 2, 3, 4, 5, 6, 9, 10, 11, 12 and Subgroup 7A and 7B Trust Assets, Mortgage Rates of the Mortgage Loans underlying the Trust MBS. However, the actual remaining terms to maturity, loan ages and, in the case of the Group 1, 2, 3, 4, 5, 6, 9, 10, 11, 12 and Subgroup 7A and 7B Trust Assets, 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 (i) \$100,000 in initial notional balance or (ii) the initial notional balance if such balance is less than \$100,000.

#### **Distributions**

Distributions on the Securities will be made on each Distribution Date as specified under "Terms Sheet — Distribution Dates" 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

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

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

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#### Fixed Rate Classes

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

# Floating Rate and Inverse Floating Rate Classes

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

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

# Weighted Average Coupon Class

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

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

# Accrual Classes

Each of Classes AZ, BZ, CZ, KZ, MZ, Z, ZK and ZM 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 R1 Securities, Class R3 Securities, Class R4 Securities, Class R5 Securities, Class R7 Securities, Class R8 Securities, Class R9 Securities, Class R10 Securities, Class R11 Securities and Class R12 Securities will represent the beneficial ownership of the Residual Interest in the Group 1 REMIC, the Group 3 REMIC, the Group 4 REMIC, the Group 5 REMIC, the Group 7 REMIC, the Group 8 REMIC, the Group 9 REMIC, the Group 10 REMIC, the Group 11 REMIC and the Group 12 REMIC, respectively, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class RR2 and RR6 Securities will represent the beneficial ownership of the Residual Interest in the related Issuing REMIC and the beneficial ownership of the Residual Interest in the related Pooling REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class R1, RR2, R3, R4, R5, RR6, R7, R8, R9, R10, R11 and R12 Securities have no Class Principal Balance and do not accrue interest. The Class R1, RR2, R3, R4, R5, RR6, R7, R8, R9, R10, R11 and R12 Securities will be entitled to receive the proceeds of the disposition of any assets remaining in the related Trust REMIC or Trust REMICs, as applicable, after the Class Principal Balance or Class Notional Balance of each Class of Regular Securities in the related Security Group 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 applicable 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 the 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 Secu-

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

Trust REMICs	Related Securities
Group 1 REMIC	Group 1 Securities
Group 2 Issuing and Pooling REMICs	Group 2 Securities
Group 3 REMIC	Group 3 Securities
Group 4 REMIC	Group 4 Securities
Group 5 REMIC	Group 5 Securities
Group 6 Issuing and Pooling REMICs	Group 6 Securities
Group 7 REMIC	Group 7 Securities
Group 8 REMIC	Group 8 Securities
Group 9 REMIC	Group 9 Securities
Group 10 REMIC	Group 10 Securities
Group 11 REMIC	Group 11 Securities
Group 12 REMIC	Group 12 Securities

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

With respect to each of Security Groups 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12, a Holder of all of the outstanding Regular Securities of any such Security Group and the related Class of Residual Securities will have the right to purchase the related Trust Assets upon three Business Days' notice (the "Notice Period"). The purchase will be for cash in an amount equal to (A)(i) the aggregate remaining principal balance of the assets of such Security Group, but in no event less than the aggregate outstanding principal amount of the Securities of such Security Group, plus (ii) accrued interest on the Securities of such Security Group, less (B) amounts on deposit in the related Trust REMIC or Trust REMICs, as applicable, for distribution on the Securities of such Security Group, plus (C) a \$5,000 termination fee payable to the Trustee in connection with each Security Group to be terminated. After the Notice Period, and upon such purchase, the Trustee will terminate the related Trust REMIC or Trust REMICs, as applicable. Upon such termination, the Trustee will distribute the cash proceeds of the sale of the related Trust Assets to the Holder of the related Securities (which distribution may be offset against amounts due on the sale of such assets), will cancel the Securities of the related Security Group and cause the removal from the Book-Entry Depository Account of all Classes of the related Security Group, will cancel the related Class of Residual Securities, and will credit the remaining Trust Assets in the related Security Group to the account of the surrendering Holder. Notwithstanding anything to the contrary contained herein, no such termination will be allowed unless the Trustee and Ginnie Mae are provided, at no cost to either the Trustee or Ginnie Mae, an Opinion of Counsel, acceptable to the Trustee and Ginnie Mae, to the effect that such termination constitutes a "qualified liquidation" under the REMIC Provisions, including Section 860F(a)(4) of the Code, and such termination will not result in a disqualification of any Trust REMIC that is not terminated at such time or the imposition of any "prohibited transactions" or "contributions" tax under the REMIC Provisions on any Trust REMIC that is not terminated at such time.

# **Modification and Exchange**

All or a portion of the Classes of REMIC Securities specified on the front cover may be exchanged for a proportionate interest in the related MX Class or Classes shown on Schedule I to this Supplement. Similarly, all or a portion of the related MX Class or Classes may be exchanged for proportionate interests in the related Class or Classes of REMIC Securities and, in the case of Combinations 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 and 29, other related MX Classes. This process may occur repeatedly.

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

In the case of Combinations 2, 3, 4, 5 and 29, the related REMIC Securities may be exchanged for proportionate interests in various subcombinations of MX Classes. Similarly, all or a portion of these MX Classes may be exchanged for proportionate interests in the related REMIC Securities or in other subcombinations of the related MX Classes. Each subcombination may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered. See the example under "Description of the Securities — Modification and Exchange" in the Base Offering Circular.

A Beneficial Owner proposing to effect an exchange must notify the Trustee through the Beneficial Owner's Book-Entry Depository participant. This notice must be received by the Trustee not later than two Business Days before the proposed exchange date. The exchange date can be any Business Day other than the last Business Day of the month. The notice must contain the outstanding principal or notional balances of the Securities to be included in the exchange and the proposed exchange date. The notice is required to be delivered to the Trustee by email to USBGNMATeam@USBank.com or in writing at its Corporate Trust Office at. U.S. Bank National Association, One Federal Street, 3rd Floor, Boston, MA 02110, Attention: Ginnie Mae REMIC Program Agency Group 2020-187. 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  $V_{32}$  of 1% of the outstanding principal balance (or notional balance) of the Securities surrendered for exchange (but not less than \$2,000 or more than \$25,000); provided, however, that no fee will be payable in respect of an interest only security unless all securities involved in the exchange are interest only securities. The fee must be paid concurrently with the exchange.

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

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

#### YIELD, MATURITY AND PREPAYMENT CONSIDERATIONS

#### General

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

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

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

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

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

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

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

Investors in the Group 7 Securities are urged to review the discussion under "Risk Factors — *The rate of payments on the underlying certificate will directly affect the rate of payments on the group 7 securities*" in this Supplement.

#### **Accretion Directed Classes**

Classes HA, HB, HC, KA, KZ, MA, MZ and PB are Accretion Directed Classes. The related Accrual Amounts will be applied to making principal distributions on those Classes as described in this Supplement. Each of Classes MI and PI 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 constant 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:

Security Gro	oup	Initial Effective Ranges
	PAC Classes	
2	PB	150% PSA through 280% PSA
3	GA	350% PSA through 550% PSA
5	DP	200% PSA through 300% PSA
5	EP	200% PSA through 300% PSA
6	MA and MZ (in the aggregate)	290% PSA through 350% PSA
7	HA	150% PSA through 330% PSA
7	HB	150% PSA through 330% PSA
7	HC	150% PSA through 270% PSA
12	KA and KZ (in the aggregate)	187% 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 Certificate, the priorities of distributions on the Underlying Certificate and the following assumptions (the "Modeling Assumptions"), among others:

- 1. The Mortgage Loans underlying the Group 1, 2, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 5, 6, 9, 10, 11 and 12 and Subgroup 7A and 7B Trust Assets" in the Terms Sheet, and the Mortgage Loans underlying the Group 8 Trust Assets have the characteristics shown under "Characteristics of the Mortgage Loans Underlying the Group 8 Trust Assets" in the Terms Sheet, except in the case of information set forth under the 0% PSA Prepayment Assumption Rate, for which each Mortgage Loan underlying a Group 1, 2, 3, 4, 5, 6, 9, 10, 11 or 12 or Subgroup 7A or 7B 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 Group 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12 Securities are always received on the 20th day of the month, and distributions on the Group 8 Securities are always received on the 16th day of the month, in each case, whether or not a Business Day, commencing in January 2021.
  - 4. A termination of the Trust, any Trust REMIC or the Underlying Trust does not occur.
  - 5. The Closing Date for the Securities is December 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 Certificate are made as described in the Underlying Certificate Disclosure Document.
  - 8. Each Class is held from the Closing Date and is not exchanged in whole or in part.

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

- For example, most of the Mortgage Loans will not have the characteristics assumed, many Distribution Dates will occur on a Business Day after the 16th or 20th day of the month, as applicable, and the Trustee may cause a termination of the Trust as described under "Description of the Securities Termination" in this Supplement.
- In addition, distributions on the Securities are based on Certificate Factors and Calculated Certificate Factors, as applicable, which may not reflect actual receipts on the Trust Assets.

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

#### **Decrement Tables**

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

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

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

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

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

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

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

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

Security Group 1 PSA Prepayment Assumption Rates

			Classes F	A and SA		
Distribution Date	0%	100%	300%	450%	700%	900%
Initial Percent	100	100	100	100	100	100
December 2021	99	94	86	80	70	62
December 2022	97	87	70	58	40	28
December 2023	96	80	56	41	23	13
December 2024	94	74	45	30	13	6
December 2025	92	68	36	21	7	3
December 2026	91	62	29	15	4	1
December 2027	89	57	23	11	2	1
December 2028	87	52	18	8	1	0
December 2029	85	48	15	5	1	0
December 2030	83	43	12	4	0	0
December 2031	80	39	9	3	0	0
December 2032	78	36	7	2	0	0
December 2033	75	32	6	1	0	0
December 2034	72	29	4	1	0	0
December 2035	69	26	3	1	0	0
December 2036	66	23	3 3	0	0	0
December 2037	63	20	2	0	0	0
December 2038	60	18	2	0	0	0
December 2039	56	16	1	0	0	0
December 2040	52	13	1	0	0	0
December 2041	48	11	1	0	0	0
December 2042	44	10	0	0	0	0
December 2043	40	8	0	0	0	0
December 2044	35	6	0	0	0	0
December 2045	30	5	0	0	0	0
December 2046	24	3	0	0	0	0
December 2047	19	2	0	0	0	0
December 2048	13	1	0	0	0	0
December 2049	7	0	0	0	0	0
December 2050	0	0	0	0	0	0
Weighted Average						
Life (years)	19.0	10.1	4.8	3.3	2.1	1.6

Security Group 2 PSA Prepayment Assumption Rates

			Class IA	1			(	Class IC	)			Classe	es PB a	nd PI				Class Z		
Distribution Date	0%	150%	250%	280%	500%	0%	150%	250%	280%	500%	0%	150%	250%	280%	500%	0%	150%	250%	280%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	98	95	93	92	88	98	94	93	93	92	98	93	93	93	93	103	103	90	87	60
December 2022	97	87	81	79	66	95	84	82	82	76	95	83	83	83	80	105	105	70	59	0
December 2023	95	77	67	64	46	93	73	70	69	52	92	71	71	71	55	108	108	48	31	0
December 2024	93	69	56	52	31	91	63	59	58	36	90	60	60	60	37	111	111	34	14	0
December 2025	91	61	46	42	21	88	53	49	48	24	87	50	50	50	26	113	113	26	4	0
December 2026	89	54	38	34	14	85	45	40	39	17	84	41	41	41	17	116	116	23	0	0
December 2027	87	48	32	28	10	82	38	33	32	11	80	33	33	33	12	119	118	23	0	0
December 2028	85	42	26	22	7	79	31	27	26	8	77	27	27	27	8	122	117	22	0	0
December 2029	83	37	21	18	5	76	26	22	21	5	74	22	22	22	5	125	113	20	0	0
December 2030	80	33	18	15	3	73	22	18	17	4	70	17	17	17	4	128	107	18	0	0
December 2031	78	29	14	12	2	70	18	14	13	2	67	14	14	14	2	132	101	16	0	0
December 2032	75	25	12	9	1	66	15	11	11	2	63	11	11	11	2	135	93	15	0	0
December 2033	72	22	10	7	1	63	13	9	9	1	59	9	9	9	1	138	85	13	0	0
December 2034	69	19	8	6	1	59	10	7	7	1	54	7	7	7	1	142	77	11	0	0
December 2035	66	16	6	5	0	55	9	6	5	0	50	6	6	6	1	145	70	10	0	0
December 2036	63	14	5	4	0	51	7	5	4	0	46	4	4	4	0	149	62	8	0	0
December 2037	60	12	4	3	0	46	6	4	3	0	41	3	3	3	0	153	55	7	0	0
December 2038	56	10	3	2	0	42	5	3	3	0	36	3	3	3	0	157	48	6	0	0
December 2039	53	9	3	2	0	37	4	2	2	0	31	2	2	2	0	161	41	5	0	0
December 2040	49	7	2	1	0	32	3	2	2	0	25	2	2	2	0	165	35	4	0	0
December 2041	45	6	2	1	0	27	3	1	1	0	20	1	1	1	0	169	30	3	0	0
December 2042	41	5	1	1	0	22	2	1	1	0	14	1	1	1	0	173	25	3	0	0
December 2043	36	4	1	1	0	16	2	1	1	0	8	1	1	1	0	178	20	2	0	0
December 2044	32	3	1	0	0	10	1	1	0	0	1	0	0	0	0	182	16	1	0	0
December 2045	27	2	0	0	0	8	1	0	0	0	0	0	0	0	0	159	12	1	0	0
December 2046	22	2	0	0	0	7	1	0	0	0	0	0	0	0	0	130	9	1	0	0
December 2047	17	1	0	0	0	5	0	0	0	0	0	0	0	0	0	100	6	0	0	0
December 2048	12	1	0	0	0	3	0	0	0	0	0	0	0	0	0	68	3	0	0	0
December 2049	6	0	0	0	0	2	0	0	0	0	0	0	0	0	0	35	1	0	0	0
December 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)	18.3	8.4	6.0	5.5	3.5	15.3	6.8	6.1	6.0	3.8	14.1	6.1	6.1	6.1	4.0	27.2	17.1	5.3	2.5	1.1

Security Group 3 PSA Prepayment Assumption Rates

			Class	s GA					Class	s GD					Class	s GU		
Distribution Date	0%	100%	350%	400%	550%	800%	0%	100%	350%	400%	550%	800%	0%	100%	350%	400%	550%	800%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	98	96	92	92	92	92	99	97	93	92	90	86	100	100	100	96	83	61
December 2022	96	89	74	74	74	70	97	91	79	76	69	58	100	100	100	86	45	0
December 2023	94	81	53	53	53	37	95	84	61	57	46	30	100	100	100	77	12	0
December 2024	92	73	36	36	36	19	94	77	47	43	30	15	100	100	100	72	0	0
December 2025	90	65	24	24	24	9	92	71	37	32	20	8	100	100	97	69	0	0
December 2026	88	58	16	16	16	5	90	65	28	23	13	4	100	100	88	61	0	0
December 2027	85	51	10	10	10	2	88	60	22	17	8	2	100	100	77	52	0	0
December 2028	83	45	7	7	7	1	86	54	17	13	5	1	100	100	65	42	0	0
December 2029	80	39	4	4	4	1	84	50	13	9	4	1	100	100	53	34	0	0
December 2030	77	34	3	3	3	0	81	45	10	7	2	0	100	100	43	27	0	0
December 2031	75	29	2	2	2	0	79	41	7	5	1	0	100	100	34	21	0	0
December 2032	71	24	1	1	1	0	76	37	6	4	1	0	100	100	27	16	0	0
December 2033	68	20	1	1	1	0	74	34	4	3	1	0	100	100	21	12	0	0
December 2034	65	16	0	0	0	0	71	30	3	2	0	0	100	100	17	9	0	0
December 2035	61	12	0	0	0	0	68	27	2	1	0	0	100	100	13	7	0	0
December 2036	57	8	0	0	0	0	65	24	2	1	0	0	100	100	10	5	0	0
December 2037	53	5	0	0	0	0	61	21	1	1	0	0	100	100	7	4	0	0
December 2038	49	2	0	0	0	0	58	19	1	1	0	0	100	100	6	3	0	0
December 2039	45	0	0	0	0	0	54	17	1	0	0	0	100	96	4	2	0	0
December 2040	40	0	0	0	0	0	51	14	1	0	0	0	100	83	3	1	0	0
December 2041	35	0	0	0	0	0	47	12	0	0	0	0	100	72	2	1	0	0
December 2042	30	0	0	0	0	0	42	11	0	0	0	0	100	61	2	1	0	0
December 2043	25	0	0	0	0	0	38	9	0	0	0	0	100	51	1	0	0	0
December 2044	19	0	0	0	0	0	33	7	0	0	0	0	100	42	1	0	0	0
December 2045	13	0	0	0	0	0	28	6	0	0	0	0	100	33	1	0	0	0
December 2046	7	0	0	0	0	0	23	4	0	0	0	0	100	25	0	0	0	0
December 2047	1	0	0	0	0	0	18	3	0	0	0	0	100	18	0	0	0	0
December 2048	0	0	0	0	0	0	12	2	0	0	0	0	71	11	0	0	0	0
December 2049	0	0	0	0	0	0	6	1	0	0	0	0	36	5	0	0	0	0
December 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																		
Life (years)	16.5	8.0	3.7	3.7	3.7	2.9	18.6	10.6	4.9	4.4	3.4	2.6	28.6	23.5	10.2	7.5	1.9	1.1

Security Group 4
PSA Prepayment Assumption Rates

		Cla	asses NE and	NI	
Distribution Date	0%	100%	350%	550%	700%
Initial Percent	100	100	100	100	100
December 2021	98	96	93	90	87
December 2022	96	91	78	69	62
December 2023	94	83	61	46	36
December 2024	93	76	47	30	20
December 2025	90	70	36	19	11
December 2026	88	64	28	13	6
December 2027	86	58	21	8	4
December 2028	84	53	16	5	2
December 2029	81	48	12	3	1
December 2030	79	44	9	2	1
December 2031	76	39	7	1	0
December 2032	73	36	5	1	0
December 2033	71	32	4	1	0
December 2034	68	29	3	0	0
December 2035	65	26	2	0	0
December 2036	61	23	2	0	0
December 2037	58	20	1	0	0
December 2038	55	18	1	0	0
December 2039	51	15	1	0	0
December 2040	47	13	1	0	0
December 2041	43	11	0	0	0
December 2042	39	10	0	0	0
December 2043	35	8	0	0	0
December 2044	31	7	0	0	0
December 2045	26	5	0	0	0
December 2046	21	4	0	0	0
December 2047	16	3	0	0	0
December 2048	11	2	0	0	0
December 2049	6	1	0	0	0
December 2050	0	0	0	0	0
Weighted Average Life (years)	17.9	10.3	4.8	3.4	2.8

Security Group 5 PSA Prepayment Assumption Rates

	Cl	asses AB	, AC, AD	, AE and	AI		Classes	AU, BU	and CU		С	lasses B,	BC, BD,	BE and	ВІ
Distribution Date	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	98	95	94	93	90	100	100	94	89	67	98	95	94	93	90
December 2022	96	86	83	81	71	100	100	82	63	0	96	86	83	81	71
December 2023	94	74	69	65	49	100	100	66	34	0	94	74	69	65	49
December 2024	93	63	57	52	34	100	100	56	15	0	93	63	57	52	34
December 2025	90	54	48	41	23	100	100	50	5	0	90	54	48	41	23
December 2026	88	46	39	33	16	100	100	47	0	0	88	46	39	33	16
December 2027	86	40	32	26	11	100	99	45	0	0	86	40	32	26	11
December 2028	84	34	27	21	7	100	96	43	0	0	84	34	27	21	7
December 2029	81	29	22	17	5	100	91	40	0	0	81	29	22	17	5
December 2030	79	24	18	13	3	100	84	36	0	0	79	24	18	13	3
December 2031	76	21	15	10	2	100	77	33	0	0	76	21	15	10	2
December 2032	73	17	12	8	1	100	69	29	0	0	73	17	12	8	1
December 2033	71	15	10	6	1	100	62	25	0	0	71	15	10	6	1
December 2034	68	12	8	5	1	100	55	22	0	0	68	12	8	5	1
December 2035	65	10	6	4	0	100	48	19	0	0	65	10	6	4	0
December 2036	61	9	5	3	0	100	41	16	0	0	61	9	5	3	0
December 2037	58	7	4	2	0	100	36	13	0	0	58	7	4	2	0
December 2038	55	6	3	2	0	100	30	11	0	0	55	6	3	2	0
December 2039	51	5	3	1	0	100	25	9	0	0	51	5	3	1	0
December 2040	47	4	2	1	0	100	21	7	0	0	47	4	2	1	0
December 2041	43	3	2	1	0	100	17	6	0	0	43	3	2	1	0
December 2042	39	2	1	1	0	100	14	5	0	0	39	2	1	1	0
December 2043	35	2	1	0	0	100	11	4	0	0	35	2	1	0	0
December 2044	31	1	1	0	0	100	9	3	0	0	31	1	1	0	0
December 2045	26	1	0	0	0	100	7	2	0	0	26	1	0	0	0
December 2046	21	1	0	0	0	100	5	1	0	0	21	1	0	0	0
December 2047	16	1	0	0	0	100	3	1	0	0	16	1	0	0	0
December 2048	11	0	0	0	0	82	2	1	0	0	11	0	0	0	0
December 2049	6	0	0	0	0	42	1	0	0	0	6	0	0	0	0
December 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	17.9	7.1	6.1	5.4	3.7	28.8	15.5	8.2	2.6	1.2	17.9	7.1	6.1	5.4	3.7

PSA	Prenavment	Assumption	Rates

		Classes	BP, CP	and PD		C	lasses C,	CB, CD,	CE and	CI	Class	es D, DA I	, DB, DC DI and D		, DH,
Distribution Date	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	98	94	94	94	94	98	95	94	93	90	98	94	94	94	94
December 2022	96	83	83	83	82	96	86	83	81	71	96	83	83	83	82
December 2023	94	70	70	70	57	94	74	69	65	49	94	70	70	70	57
December 2024	91	58	58	58	39	93	63	57	52	34	91	58	58	58	39
December 2025	89	47	47	47	26	90	54	48	41	23	89	47	47	47	26
December 2026	86	38	38	38	18	88	46	39	33	16	86	38	38	38	18
December 2027	84	30	30	30	12	86	40	32	26	11	84	30	30	30	12
December 2028	81	24	24	24	8	84	34	27	21	7	81	24	24	24	8
December 2029	78	19	19	19	6	81	29	22	17	5	78	19	19	19	6
December 2030	76	15	15	15	4	79	24	18	13	3	76	15	15	15	4
December 2031	72	12	12	12	3	76	21	15	10	2	72	12	12	12	3
December 2032	69	9	9	9	2	73	17	12	8	1	69	9	9	9	2
December 2033	66	7	7	7	1	71	15	10	6	1	66	7	7	7	1
December 2034	63	6	6	6	1	68	12	8	5	1	63	6	6	6	1
December 2035	59	4	4	4	1	65	10	6	4	0	59	4	4	4	1
December 2036	55	3	3	3	0	61	9	5	3	0	55	3	3	3	0
December 2037	52	3	3	3	0	58	7	4	2	0	52	3	3	3	0
December 2038	47	2	2	2	0	55	6	3	2	0	47	2	2	2	0
December 2039	43	2	2	2	0	51	5	3	1	0	43	2	2	2	0
December 2040	39	1	1	1	0	47	4	2	1	0	39	1	1	1	0
December 2041	34	1	1	1	0	43	3	2	1	0	34	1	1	1	0
December 2042	30	1	1	1	0	39	2	1	1	0	30	1	1	1	0
December 2043	25	0	0	0	0	35	2	1	0	0	25	0	0	0	0
December 2044	20	0	0	0	0	31	1	1	0	0	20	0	0	0	0
December 2045	14	0	0	0	0	26	1	0	0	0	14	0	0	0	0
December 2046	9	0	0	0	0	21	1	0	0	0	9	0	0	0	0
December 2047	3	0	0	0	0	16	1	0	0	0	3	0	0	0	0
December 2048	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0
December 2049	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
December 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	16.3	5.8	5.8	5.8	4.0	17.9	7.1	6.1	5.4	3.7	16.3	5.8	5.8	5.8	4.0

Security Group 5 PSA Prepayment Assumption Rates

	Classe	es DU, U	A, UB, UO IH and U		E, UG,	Clas	ses E, EA	, EB, EC EI and El		, EH,	Class	es EU, Y.	A, YB, YO		E, YG,
Distribution Date	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%	0%	200%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	100	100	94	89	67	98	94	94	94	94	100	100	94	89	67
December 2022	100	100	82	63	0	96	83	83	83	82	100	100	82	63	0
December 2023	100	100	66	34	0	94	70	70	70	57	100	100	66	34	0
December 2024	100	100	56	15	0	91	58	58	58	39	100	100	56	15	0
December 2025	100	100	50	5	0	89	47	47	47	26	100	100	50	5	0
December 2026	100	100	47	0	0	86	38	38	38	18	100	100	47	0	0
December 2027	100	99	45	0	0	84	30	30	30	12	100	99	45	0	0
December 2028	100	96	43	0	0	81	24	24	24	8	100	96	43	0	0
December 2029	100	91	40	0	0	78	19	19	19	6	100	91	40	0	0
December 2030	100	84	36	0	0	76	15	15	15	4	100	84	36	0	0
December 2031	100	77	33	0	0	72	12	12	12	3	100	77	33	0	0
December 2032	100	69	29	0	0	69	9	9	9	2	100	69	29	0	0
December 2033	100	62	25	0	0	66	7	7	7	1	100	62	25	0	0
December 2034	100	55	22	0	0	63	6	6	6	1	100	55	22	0	0
December 2035	100	48	19	0	0	59	4	4	4	1	100	48	19	0	0
December 2036	100	41	16	0	0	55	3	3	3	0	100	41	16	0	0
December 2037	100	36	13	0	0	52	3	3	3	0	100	36	13	0	0
December 2038	100	30	11	0	0	47	2	2	2	0	100	30	11	0	0
December 2039	100	25	9	0	0	43	2	2	2	0	100	25	9	0	0
December 2040	100	21	7	0	0	39	1	1	1	0	100	21	7	0	0
December 2041	100	17	6	0	0	34	1	1	1	0	100	17	6	0	0
December 2042	100	14	5	0	0	30	1	1	1	0	100	14	5	0	0
December 2043	100	11	4	0	0	25	0	0	0	0	100	11	4	0	0
December 2044	100	9	3	0	0	20	0	0	0	0	100	9	3	0	0
December 2045	100	7	2	0	0	14	0	0	0	0	100	7	2	0	0
December 2046	100	5	1	0	0	9	0	0	0	0	100	5	1	0	0
December 2047	100	3	1	0	0	3	0	0	0	0	100	3	1	0	0
December 2048	82	2	1	0	0	0	0	0	0	0	82	2	1	0	0
December 2049	42	1	0	0	0	0	0	0	0	0	42	1	0	0	0
December 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	28.8	15.5	8.2	2.6	1.2	16.3	5.8	5.8	5.8	4.0	28.8	15.5	8.2	2.6	1.2

Security Group 6 PSA Prepayment Assumption Rates

		(	Class MA	A			- (	Class M	I			(	Class M	Z			(	Class ZN	1	
Distribution Date	0%	290%	320%	350%	700%	0%	290%	320%	350%	700%	0%	290%	320%	350%	700%	0%	290%	320%	350%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	98	91	91	91	89	98	91	91	91	89	101	101	101	101	101	103	103	92	82	0
December 2022	96	77	77	77	59	96	77	77	77	59	102	102	102	102	102	106	106	76	46	0
December 2023	94	60	60	60	34	94	60	60	60	34	103	103	103	103	103	109	109	62	16	0
December 2024	92	47	47	47	19	92	47	47	47	19	104	104	104	104	104	113	113	56	2	0
December 2025	90	36	36	36	11	90	36	36	36	11	105	105	105	105	105	116	116	56	0	0
December 2026	87	28	28	28	6	87	28	28	28	6	106	106	106	106	106	120	114	54	0	0
December 2027	85	21	21	21	3	85	22	22	22	3	107	107	107	107	107	123	107	51	0	0
December 2028	82	16	16	16	2	82	17	17	17	2	108	108	108	108	108	127	98	46	0	0
December 2029	79	13	13	13	1	80	13	13	13	1	109	109	109	109	109	131	88	40	0	0
December 2030	77	10	10	10	0	77	10	10	10	1	111	111	111	111	111	135	77	35	0	0
December 2031	74	7	7	7	0	74	7	7	7	0	112	112	112	112	112	139	67	30	0	0
December 2032	71	5	5	5	0	71	6	6	6	0	113	113	113	113	113	143	57	25	0	0
December 2033	67	4	4	4	0	67	4	4	4	0	114	114	114	114	106	148	48	21	0	0
December 2034	64	3	3	3	0	64	3	3	3	0	115	115	115	115	58	152	40	17	0	0
December 2035	61	2	2	2	0	61	2	2	2	0	116	116	116	116	32	157	33	14	0	0
December 2036	57	2	2	2	0	57	2	2	2	0	117	117	117	117	18	162	27	12	0	0
December 2037	53	1	1	1	0	53	1	1	1	0	119	119	119	119	10	166	22	9	0	0
December 2038	49	1	1	1	0	49	1	1	1	0	120	120	120	120	5	171	18	7	0	0
December 2039	45	1	1	1	0	45	1	1	1	0	121	121	121	121	3	177	14	6	0	0
December 2040	41	0	0	0	0	41	1	1	1	0	122	122	122	122	1	182	11	4	0	0
December 2041	36	0	0	0	0	36	0	0	0	0	123	123	123	123	1	188	9	3	0	0
December 2042	31	0	0	0	0	31	0	0	0	0	125	125	125	125	0	193	7	3	0	0
December 2043	26	0	0	0	0	26	0	0	0	0	126	126	126	126	0	199	5	2	0	0
December 2044	21	0	0	0	0	21	0	0	0	0	127	124	124	124	0	205	4	1	0	0
December 2045	16	0	0	0	0	16	0	0	0	0	128	81	81	81	0	212	2	1	0	0
December 2046	10	0	0	0	0	10	0	0	0	0	130	50	50	50	0	218	2	1	0	0
December 2047	4	0	0	0	0	4	0	0	0	0	131	28	28	28	0	225	1	0	0	0
December 2048	0	0	0	0	0	0	0	0	0	0	13	13	13	13	0	200	0	0	0	0
December 2049	0	0	0	0	0	0	0	0	0	0	3	3	3	3	0	102	0	0	0	0
December 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)	16.6	4.8	4.8	4.8	2.7	16.6	4.8	4.8	4.8	2.8	27.8	25.8	25.8	25.8	14.6	28.9	12.9	7.8	2.0	0.5

Security Group 7
PSA Prepayment Assumption Rates

			Class AZ	:				Class BZ					Class CZ		
Distribution Date	0%	150%	240%	330%	500%	0%	150%	240%	330%	500%	0%	150%	240%	330%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	103	103	95	87	72	103	103	95	87	73	103	103	83	63	25
December 2022	105	105	82	59	17	105	105	82	59	18	105	105	60	16	0
December 2023	108	108	67	30	0	108	108	67	30	0	108	108	43	0	0
December 2024	111	110	58	12	0	111	110	58	12	0	111	110	32	0	0
December 2025	113	113	53	3	0	113	113	53	3	0	113	113	27	0	0
December 2026	116	116	51	0	0	116	116	51	0	0	116	116	25	0	0
December 2027	119	117	49	0	0	119	117	49	0	0	119	116	25	0	0
December 2028	122	114	46	0	0	122	114	47	0	0	122	114	23	0	0
December 2029	125	109	43	0	0	125	109	43	0	0	125	109	22	0	0
December 2030	128	102	39	0	0	128	102	39	0	0	128	103	20	0	0
December 2031	132	95	34	0	0	132	95	35	0	0	132	95	18	0	0
December 2032	135	87	30	0	0	135	87	31	0	0	135	88	16	0	0
December 2033	138	79	26	0	0	138	79	27	0	0	138	80	14	0	0
December 2034	142	71	23	0	0	142	71	23	0	0	142	72	12	0	0
December 2035	145	63	19	0	0	145	63	20	0	0	145	64	10	0	0
December 2036	149	56	16	0	0	149	56	17	0	0	149	57	9	0	0
December 2037	153	49	14	0	0	153	49	14	0	0	153	49	8	0	0
December 2038	157	42	11	0	0	157	43	12	0	0	157	43	6	0	0
December 2039	161	36	9	0	0	161	37	10	0	0	161	37	5	0	0
December 2040	165	31	8	0	0	165	31	8	0	0	165	31	4	0	0
December 2041	169	26	6	0	0	169	26	6	0	0	169	26	4	0	0
December 2042	173	22	5	0	0	173	22	5	0	0	173	21	3	0	0
December 2043	166	18	4	0	0	166	18	4	0	0	155	16	2	0	0
December 2044	146	14	3	0	0	145	14	3	0	0	127	12	2	0	0
December 2045	124	11	2	0	0	124	11	2	0	0	99	9	1	0	0
December 2046	102	8	2	0	0	101	8	2	0	0	68	6	1	0	0
December 2047	78	5	1	0	0	78	5	1	0	0	38	3	1	0	0
December 2048	53	3	1	0	0	53	3	1	0	0	17	1	0	0	0
December 2049	27	ĭ	0	Õ	Õ	27	ĭ	0	Õ	Ŏ	0	0	Õ	Ŏ	Ŏ
December 2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average	,	,			-	~	,	,	,	~	•	,	,	~	,
Life (years)	26.5	16.4	8.5	2.4	1.4	26.5	16.5	8.6	2.5	1.4	25.4	16.4	5.2	1.3	0.7

PSA	Prepayment	Assumption	Rates

			Class HA					Class HE	3				Class HC	;	
Distribution Date	0%	150%	240%	330%	500%	0%	150%	240%	330%	500%	0%	150%	240%	330%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	97	93	93	93	93	97	93	93	93	93	97	91	91	91	91
December 2022	94	82	82	82	82	94	82	82	82	82	94	78	78	78	67
December 2023	91	69	69	69	60	91	69	69	69	60	90	67	67	64	45
December 2024	88	58	58	58	41	88	58	58	58	41	87	56	56	50	31
December 2025	85	47	47	47	28	85	47	47	47	28	83	47	47	39	21
December 2026	82	37	37	37	19	82	37	37	37	19	79	38	38	30	14
December 2027	78	29	29	29	13	78	29	29	29	13	76	31	31	23	10
December 2028	74	23	23	23	9	74	22	22	22	9	72	25	25	18	7
December 2029	71	17	17	17	6	71	17	17	17	6	68	20	20	14	4
December 2030	67	14	14	14	4	67	13	13	13	4	63	16	16	11	3
December 2031	62	10	10	10	3	62	10	10	10	3	59	13	13	8	2
December 2032	58	8	8	8	2	58	8	8	8	2	55	10	10	6	1
December 2033	54	6	6	6	1	54	6	6	6	1	50	8	8	5	1
December 2034	49	5	5	5	1	49	5	5	5	1	45	7	7	4	1
December 2035	44	4	4	4	1	44	4	4	4	1	41	5	5	3	0
December 2036	39	3	3	3	0	39	3	3	3	0	36	4	4	2	0
December 2037	34	2	2	2	0	34	2	2	2	0	30	3	3	2	0
December 2038	28	2	2	2	0	28	1	1	1	0	25	2	2	1	0
December 2039	23	1	1	1	0	22	1	1	1	0	20	2	2	1	0
December 2040	17	1	1	1	0	16	1	1	1	0	14	1	1	1	0
December 2041	10	1	1	1	0	10	1	1	1	0	8	1	1	0	0
December 2042	4	0	0	0	0	4	0	0	0	0	2	1	1	0	0
December 2043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December 2044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December 2045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December 2046	Ŏ	Ŏ	Ŏ	Ŏ	Ö	Ö	Õ	Õ	Õ	Ŏ	Ŏ	Õ	Õ	Ŏ	Õ
December 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December 2048	0	0	0	0	Ő	Õ	Õ	Õ	Õ	Õ	Õ	Õ	Õ	0	Õ
December 2049	ŏ	Ŏ	Ŏ	Ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	Ŏ	ő	Ŏ	Ŏ
December 2050	Õ	Ŏ	Õ	Õ	Õ	Õ	Õ	Õ	Õ	Õ	0	Õ	Õ	Õ	Õ
Weighted Average		~			~	Ü	~	~	~		•	0	~		
Life (years)	13.0	5.6	5.6	5.6	4.1	13.0	5.6	5.6	5.6	4.1	12.5	5.8	5.8	5.0	3.5

Security Group 7 PSA Prepayment Assumption Rates

			Class HI	[				Class HF	•				Class IH		
Distribution Date	0%	150%	240%	330%	500%	0%	150%	240%	330%	500%	0%	150%	240%	330%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	98	95	94	92	89	97	93	93	93	93	98	95	94	92	89
December 2022	97	87	82	77	68	94	82	82	82	79	97	87	82	77	68
December 2023	95	78	69	61	47	91	69	69	68	57	95	78	69	61	47
December 2024	93	69	58	48	32	88	57	57	56	39	93	69	58	48	32
December 2025	91	61	48	37	22	85	47	47	45	27	91	61	48	37	22
December 2026	89	54	40	29	15	81	37	37	36	18	89	54	40	29	15
December 2027	87	48	33	23	10	78	29	29	28	12	87	48	33	23	10
December 2028	85	42	28	18	7	74	23	23	22	8	85	43	28	18	7
December 2029	83	37	23	14	5	70	18	18	17	6	83	38	23	14	5
December 2030	80	33	19	11	3	66	14	14	13	4	80	33	19	11	3
December 2031	78	29	16	8	2	62	11	11	10	3	78	29	16	8	2
December 2032	75	25	13	6	1	57	8	8	8	2	75	25	13	6	1
December 2033	72	22	11	5	1	53	7	7	6	1	72	22	11	5	1
December 2034	69	19	9	4	1	48	5	5	5	1	69	19	9	4	1
December 2035	66	17	7	3	0	43	4	4	3	1	66	17	7	3	0
December 2036	63	14	6	2	0	38	3	3	3	0	63	14	6	2	0
December 2037	60	12	5	2	0	33	2	2	2	0	60	12	5	2	0
December 2038	56	10	4	1	0	28	2	2	1	0	56	10	4	1	0
December 2039	53	9	3	1	0	22	1	1	1	0	53	9	3	1	0
December 2040	49	Ź	2	1	0	16	1	1	1	0	49	7	2	1	0
December 2041	45	6	2	0	0	10	1	1	1	0	45	6	2	0	0
December 2042	41	5	1	0	0	3	0	0	0	0	41	5	1	0	0
December 2043	36	4	1	0	0	Ö	0	0	0	0	36	4	1	0	0
December 2044	32	3	1	0	0	0	0	0	0	0	32	3	1	0	0
December 2045	27	2	1	0	0	0	0	0	0	0	27	2	1	0	0
December 2046	22	2	0	0	0	0	0	0	0	0	22	2	0	0	0
December 2047	17	1	0	0	0	0	0	0	0	0	17	1	0	0	0
December 2048	12	1	0	0	Õ	0	0	0	0	0	12	1	0	0	Õ
December 2049	6	0	Õ	Ő	Õ	Õ	Õ	Õ	Ő	Õ	6	0	Õ	Õ	Õ
December 2050	ő	ő	ő	ő	Ő	ŏ	ő	ő	ő	Õ	ő	ő	ő	ő	Ő
Weighted Average	~				•	~					~				•
Life (years)	18.3	8.5	6.3	4.9	3.5	12.9	5.7	5.7	5.5	4.0	18.3	8.5	6.3	4.9	3.5

Security Group 8 PSA Prepayment Assumption Rates

	Class WA										
Distribution Date	0%	100%	325%	500%	700%						
Initial Percent	100	100	100	100	100						
December 2021	97	91	78	68	56						
December 2022	93	82	60	46	31						
December 2023	90	75	47	31	18						
December 2024	86	67	36	21	10						
December 2025	82	60	28	14	5						
December 2026	78	54	21	9	3						
December 2027	74	48	16	6	2						
December 2028	69	42	12	4	1						
December 2029	65	37	9	3	0						
December 2030	60	32	7	2	0						
December 2031	55	28	5	1	0						
December 2032	50	24	4	1	0						
December 2033	44	20	3	0	0						
December 2034	39	16	2	0	0						
December 2035	33	13	1	0	0						
December 2036	26	10	1	0	0						
December 2037	20	7	0	0	0						
December 2038	13	4	0	0	0						
December 2039	6	2	0	0	0						
December 2040	1	0	0	0	0						
December 2041	0	0	0	0	0						
Weighted Average											
Life (years)	11.3	7.6	3.8	2.5	1.7						

Security Group 9 PSA Prepayment Assumption Rates

		Clas	ses FL and	d LA				Class SB		
Distribution Date	0%	100%	300%	450%	600%	0%	100%	300%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100
December 2021	98	96	93	90	88	98	96	93	90	88
December 2022	97	90	80	72	65	97	90	80	72	65
December 2023	95	83	64	52	41	95	83	64	52	41
December 2024	93	76	51	37	26	93	76	51	37	26
December 2025	91	70	41	26	16	91	70	41	26	16
December 2026	89	64	33	19	10	89	64	33	19	10
December 2027	87	59	26	13	6	87	59	26	13	6
December 2028	85	54	21	9	4	85	54	21	9	4
December 2029	83	49	17	7	2	83	49	17	7	2
December 2030	80	44	13	5	1	80	44	13	5	1
December 2031	78	40	10	3	1	78	40	10	3	1
December 2032	75	36	8	2	1	75	36	8	2	1
December 2033	72	33	6	2	0	72	33	6	2	0
December 2034	69	29	5	1	0	69	29	5	1	0
December 2035	66	26	4	1	0	66	26	4	1	0
December 2036	63	23	3	1	0	63	23	3	1	0
December 2037	60	21	2	0	0	60	21	2	0	0
December 2038	56	18	2	0	0	56	18	2	0	0
December 2039	53	16	1	0	0	53	16	1	0	0
December 2040	49	14	1	Õ	Õ	49	14	1	Õ	Ŏ
December 2041	45	12	1	0	0	45	12	1	0	0
December 2042	41	10	1	0	0	41	10	1	Õ	0
December 2043	36	8	0	Õ	Õ	36	8	0	Ŏ	Õ
December 2044	32	7	Õ	0	0	32	7	0	Õ	0
December 2045	27	5	Õ	Ŏ	0	27	5	0	Ŏ	Õ
December 2046	22	4	ŏ	ŏ	ŏ	22	4	ŏ	ŏ	Ŏ
December 2047	17	3	ŏ	Õ	Ŏ	17	3	Ő	Ő	Ŏ
December 2048	12	2	ŏ	Õ	Ŏ	12	2	Ő	Ő	Ŏ
December 2049	6	1	0	0	0	6	1	0	0	0
December 2050	0	0	Ő	0	0	0	0	ő	0	0
Weighted Average	O	V	V	Ü	Ü	0	O	U	Ü	U
Life (years)	18.3	10.5	5.4	3.9	3.1	18.3	10.5	5.4	3.9	3.1

PSA Prepayment Assumption Rates	PSA	Prepayment	Assumption	Rates
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			Class SC						Class SE					Class SL		
Distribution Date	0%	100%	300%	450%	600%	0%	0	100%	300%	450%	600%	0%	100%	300%	450%	600%
Initial Percent	100	100	100	100	100	10	00	100	100	100	100	100	100	100	100	100
December 2021	98	96	93	90	88		8	96	93	90	88	98	96	93	90	88
December 2022	97	90	80	72	65	9	7	90	80	72	65	97	90	80	72	65
December 2023	95	83	64	52	41	9	15	83	64	52	41	95	83	64	52	41
December 2024	93	76	51	37	26	9	3	76	51	37	26	93	76	51	37	26
December 2025	91	70	41	26	16	9	1	70	41	26	16	91	70	41	26	16
December 2026	89	64	33	19	10	8	9	64	33	19	10	89	64	33	19	10
December 2027	87	59	26	13	6	8	7	59	26	13	6	87	59	26	13	6
December 2028	85	54	21	9	4	8	5	54	21	9	4	85	54	21	9	4
December 2029	83	49	17	7	2	8	3	49	17	7	2	83	49	17	7	2
December 2030	80	44	13	5	1	8	0	44	13	5	1	80	44	13	5	1
December 2031	78	40	10	3	1	7	8	40	10	3	1	78	40	10	3	1
December 2032	75	36	8	2	1	7	5	36	8	2	1	75	36	8	2	1
December 2033	72	33	6	2	0	7	2	33	6	2	0	72	33	6	2	0
December 2034	69	29	5	1	0	6	9	29	5	1	0	69	29	5	1	0
December 2035	66	26	4	1	0	6	6	26	4	1	0	66	26	4	1	0
December 2036	63	23	3	1	0	6	3	23	3	1	0	63	23	3	1	0
December 2037	60	21	2	0	0	6	0	21	2	0	0	60	21	2	0	0
December 2038	56	18	2	0	0	5	6	18	2	0	0	56	18	2	0	0
December 2039	53	16	1	0	0	5	3	16	1	0	0	53	16	1	0	0
December 2040	49	14	1	0	0	4	9	14	1	0	0	49	14	1	0	0
December 2041	45	12	1	0	0	4	5	12	1	0	0	45	12	1	0	0
December 2042	41	10	1	0	0	4	1	10	1	0	0	41	10	1	0	0
December 2043	36	8	0	0	0	3	6	8	0	0	0	36	8	0	0	0
December 2044	32	7	0	0	0	3	2	7	0	0	0	32	7	0	0	0
December 2045	27	5	0	0	0	2	7	5	0	0	0	27	5	0	0	0
December 2046	22	4	0	0	0	2	2	4	0	0	0	22	4	0	0	0
December 2047	17	3	0	0	0	1	7	3	0	0	0	17	3	0	0	0
December 2048	12	2	0	0	0	1	2	2	0	0	0	12	2	0	0	0
December 2049	6	1	0	0	0		6	1	0	0	0	6	1	0	0	0
December 2050	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
Weighted Average																
Life (years)	18.3	10.5	5.4	3.9	3.1	18.	3	10.5	5.4	3.9	3.1	18.3	10.5	5.4	3.9	3.1

Security Group 10 PSA Prepayment Assumption Rates

	Classes FJ and SJ								
Distribution Date	0%	100%	300%	450%	700%	900%			
Initial Percent	100	100	100	100	100	100			
December 2021	99	93	82	74	60	49			
December 2022	97	86	66	53	34	22			
December 2023	96	79	53	38	20	10			
December 2024	95	73	43	27	11	5			
December 2025	93	67	34	19	6	2			
December 2026	91	62	28	14	4	1			
December 2027	90	57	22	10	2	0			
December 2028	88	52	18	7	1	0			
December 2029	86	47	14	5	1	0			
December 2030	84	43	11	4	0	0			
December 2031	81	39	9	2	0	0			
December 2032	79	35	7	2	0	0			
December 2033	77	32	5	1	0	0			
December 2034	74	29	4	1	0	0			
December 2035	71	26	3	1	0	0			
December 2036	68	23	3	0	0	0			
December 2037	65	20	2	0	0	0			
December 2038	61	18	2	0	0	0			
December 2039	58	15	1	0	0	0			
December 2040	54	13	1	0	0	0			
December 2041	50	11	1	0	0	0			
December 2042	46	9	0	0	0	0			
December 2043	41	7	0	0	0	0			
December 2044	36	6	0	0	0	0			
December 2045	31	4	0	0	0	0			
December 2046	26	3	0	0	0	0			
December 2047	20	1	0	0	0	0			
December 2048	14	0	0	0	0	0			
December 2049	7	0	0	0	0	0			
December 2050	0	0	0	0	0	0			
Weighted Average									
Life (years)	19.3	10.0	4.6	3.1	1.9	1.4			

Security Group 11 PSA Prepayment Assumption Rates

	Classes FQ and SQ									
Distribution Date	0%	100%	300%	500%	750%	1,000%				
Initial Percent	100	100	100	100	100	100				
December 2021	99	93	82	72	58	45				
December 2022	98	86	66	49	32	18				
December 2023	96	79	53	34	17	7				
December 2024	95	73	43	23	9	3				
December 2025	94	67	35	16	5	1				
December 2026	92	62	28	11	3	0				
December 2027	90	57	22	7	1	0				
December 2028	89	52	18	5	1	0				
December 2029	87	47	14	3	0	0				
December 2030	85	43	11	2	0	0				
December 2031	83	39	9	2	0	0				
December 2032	80	35	7	1	0	0				
December 2033	78	32	6	1	0	0				
December 2034	75	29	4	0	0	0				
December 2035	73	26	3	0	0	0				
December 2036	70	23	3	0	0	0				
December 2037	66	20	2	0	0	0				
December 2038	63	18	2	0	0	0				
December 2039	59	15	1	0	0	0				
December 2040	56	13	1	0	0	0				
December 2041	52	11	1	0	0	0				
December 2042	47	9	0	0	0	0				
December 2043	43	7	0	0	0	0				
December 2044	38	6	0	0	0	0				
December 2045	32	4	0	0	0	0				
December 2046	27	3	0	0	0	0				
December 2047	21	ĭ	0	0	0	0				
December 2048	14	0	0	Õ	0	Õ				
December 2049	7	ŏ	ŏ	ŏ	ŏ	Ŏ				
December 2050	0	Õ	0	Õ	0	Õ				
Weighted Average Life (years)	19.6	10.0	4.6	2.8	1.8	1.2				
Inc (years)	17.0	10.0	7.0	2.0	1.0	1.4				

Security Group 12 PSA Prepayment Assumption Rates

	Class	ses IP, K	A, KB, G and K		O, KE,		(	Class K	I.			(	lass KZ	:			(	lass ZK		
Distribution Date	0%	187%	250%	300%	500%	0%	187%	250%	300%	500%	0%	187%	250%	300%	500%	0%	187%	250%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
December 2021	98	94	94	94	94	98	95	94	93	90	102	102	102	102	102	102	102	94	88	64
December 2022	95	83	83	83	81	97	86	82	80	70	104	104	104	104	104	104	104	80	61	0
December 2023	93	70	70	70	56	95	75	69	64	48	106	106	106	106	106	106	106	64	31	0
December 2024	91	58	58	58	38	93	65	57	51	33	108	108	108	108	108	108	108	53	12	0
December 2025	88	47	47	47	26	91	56	47	41	22	111	111	111	111	111	111	111	47	3	0
December 2026	85	38	38	38	18	89	48	39	33	15	113	113	113	113	113	113	113	46	0	0
December 2027	82	30	30	30	12	87	42	32	26	10	115	115	115	115	115	115	113	45	0	0
December 2028	80	24	24	24	8	85	36	27	21	7	117	117	117	117	117	117	110	42	0	0
December 2029	76	19	19	19	5	83	31	22	17	5	120	120	120	120	120	120	104	39	0	0
December 2030	73	15	15	15	3	80	27	18	13	3	122	122	122	122	122	122	97	36	0	0
December 2031	70	12	12	12	2	78	23	15	10	2	125	125	125	125	125	125	90	32	0	0
December 2032	66	9	9	9	1	75	19	12	8	1	127	127	127	127	127	127	81	28	0	0
December 2033	63	7	7	7	1	72	17	10	6	1	130	130	130	130	130	130	73	25	0	0
December 2034	59	6	6	6	0	69	14	8	5	1	132	132	132	132	132	132	65	21	0	0
December 2035	55	4	4	4	0	66	12	6	4	0	135	135	135	135	135	135	57	18	0	0
December 2036	51	3	3	3	0	63	10	5	3	0	138	138	138	138	136	138	50	16	0	0
December 2037	47	2	2	2	0	60	8	4	2	0	140	140	140	140	90	140	43	13	0	0
December 2038	42	2	2	2	0	56	7	3	2	0	143	143	143	143	59	143	37	11	0	0
December 2039	37	1	1	1	0	53	6	3	1	0	146	146	146	146	38	146	31	9	0	0
December 2040	33	1	1	1	0	49	5	2	1	0	149	149	149	149	25	149	26	7	0	0
December 2041	27	1	1	1	0	45	4	2	1	0	152	152	152	152	16	152	22	6	0	0
December 2042	22	0	0	0	0	41	3	1	1	0	155	155	155	155	10	155	18	5	0	0
December 2043	17	0	0	0	0	36	2	1	0	0	158	158	158	158	6	158	14	4	0	0
December 2044	11	0	0	0	0	32	2	1	0	0	162	138	138	138	4	162	11	3	0	0
December 2045	5	0	0	0	0	27	1	0	0	0	165	95	95	95	2	165	8	2	0	0
December 2046	0	0	0	0	0	22	1	0	0	0	62	62	62	62	1	160	6	1	0	0
December 2047	0	0	0	0	0	17	1	0	0	0	38	38	38	38	1	123	4	1	0	0
December 2048	0	0	0	0	0	12	0	0	0	0	20	20	20	20	0	84	2	1	0	0
December 2049	0	0	0	0	0	6	0	0	0	0	7	7	7	7	0	43	1	0	0	0
December 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)	15.2	5.8	5.8	5.8	4.0	18.3	7.5	6.1	5.4	3.6	26.4	25.8	25.8	25.8	18.3	28.0	15.9	8.0	2.5	1.2

#### **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 7 Securities, the investor's own projection of payment rates on the Underlying Certificate under a variety of scenarios and
- in the case of a Floating Rate or an Inverse Floating Rate Class, the investor's own projection of levels of LIBOR under a variety of scenarios.

No representation is made regarding Mortgage Loan prepayment rates, Underlying Certificate payment rates, LIBOR levels or the yield of any Class.

Prepayments: Effect on Yields

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

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

• In the case of Regular Securities or MX Securities purchased at a discount, slower than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.

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

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

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

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

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

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

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

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

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

The effective yield on any Fixed Rate or Delay Class will be less than the yield otherwise produced by its Interest Rate and purchase price because, on each Distribution Date, 30 days' interest will be payable on (or added to the principal amount of) that Class even though interest began to accrue approximately 46 or 50 days earlier, as applicable.

#### **Yield Tables**

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

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

The yields were calculated by

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

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

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

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

	PSA Prepayment Assumption Rates						
LIBOR	100%	300%	450%	700%	900%		
0.1000%	34.7%	21.4%	10.9%	(8.0)%	(24.6)%		
0.1590%	34.0%	20.7%	10.2%	(8.7)%	(25.3)%		
1.9295%	11.8%	(1.0)%	(11.2)%	(29.7)%	(46.0)%		
3.7000% and above	**	**	**	**	**		

#### **SECURITY GROUP 2**

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

PSA Prepayment Assumption Rates								
150%	250%	280%	460%	500%				
17.6%	12.1%	10.4%	0.1%	(2.3)%				

# Sensitivity of Class IO to Prepayments Assumed Price 12.1597%\*

PSA Prepayment Assumption Rates								
150%	250%	280%	458%	500%				
11.5%	9.7%	9.3%	0.0%	(2.4)%				

DCA Deservement Assumetion Dates

# Sensitivity of Class PI to Prepayments Assumed Price 12.625%\*

PSA Prepayment Assumption Rates								
150%	250%	280%	457%	500%				
8.9%	8.9%	8.9%	0.0%	(2.4)%				

#### **SECURITY GROUP 4**

# Sensitivity of Class NI to Prepayments Assumed Price 8.375%\*

PSA Prepayment Assumption Rates								
100%	350%	549%	550%	700%				
23.3%	10.6%	0.0%	0.0%	(8.2)%				

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

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

# Sensitivity of Class AI to Prepayments Assumed Price 11.9099%\*

200%	250%	300%	349%	500%
8.1%	5.4%	2.7%	0.0%	(8.4)%

# Sensitivity of Class BI to Prepayments Assumed Price 11.0755%\*

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

200%	250%	300%	384%	500%
9.9%	7.3%	4.6%	0.0%	(6.4)%

# Sensitivity of Class CI to Prepayments Assumed Price 11.3831%\*

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

200%	250%	300%	<u>370%</u>	500%
9.2%	6.5%	3.8%	0.0%	(7.2)%

#### Sensitivity of Class DI to Prepayments Assumed Price 12.4375%\*

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

200%	250%	300%	373%	500%
3.4%	3.4%	3.4%	0.0%	(6.7)%

# Sensitivity of Class EI to Prepayments Assumed Price 11.8125%\*

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

200%	250%	300%	400%	500%
4.7%	4.7%	4.7%	0.0%	(5.2)%

# Sensitivity of Class UI to Prepayments Assumed Price 8.5%\*

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

200%	250%	291%	300%	500%
29.8%	18.1%	0.2%	(15.8)%	(89.9)%

# Sensitivity of Class YI to Prepayments Assumed Price 6.3125%\*

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

200%	250%	299%	300%	500%
41.6%	29.0%	2.0%	0.0%	(72.2)%

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

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

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

290%	320%	350%	487%	700%
7.4%	7.4%	7.4%	0.0%	(12.6)%

#### **SECURITY GROUP 7**

# Sensitivity of Class HI to Prepayments Assumed Price 5.0%\*

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

150%	240%	330%	500%	1,219%
55.8%	51.4%	47.0%	38.5%	0.0%

# Sensitivity of Class IH to Prepayments Assumed Price 3.5%\*

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

150%	240%	330%	500%	1,827%
87.6%	83.5%	79.3%	71.2%	0.0%

#### **SECURITY GROUP 9**

# Sensitivity of Class SB to Prepayments Assumed Price 23.14063%\*

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

LIBOR	100%	300%	450%	600%
0.1000%	20.4%	9.8%	1.6%	(6.8)%
0.1590%	20.1%	9.5%	1.3%	(7.1)%
3.2295%	4.8%	(6.5)%	(15.3)%	(24.5)%
6.3000% and above	**	**	**	**

# Sensitivity of Class SC to Prepayments Assumed Price 24.02765%\*

#### PSA Prepayment Assumption Rates

LIBOR	100%	300%	450%	600%
0.1000%	19.3%	8.6%	0.4%	(8.1)%
0.1590%	19.0%	8.4%	0.1%	(8.4)%
3.2295%	4.2%	(7.1)%	(16.0)%	(25.2)%
6.3000% and above	**	**	**	**

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

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

# Sensitivity of Class SE to Prepayments Assumed Price 25.95313%\*

	PSA Prepayment A			Rates
LIBOR	100%	300%	450%	600%
0.1000%	17.1%	6.3%	(2.0)%	(10.6)%
0.1590%	16.8%	6.1%	(2.3)%	(10.9)%
3.2295%	3.0%	(8.3)%	(17.2)%	(26.5)%
6.3000% and above	**	**	**	**

# Sensitivity of Class SL to Prepayments Assumed Price 24.64901%\*

	PSA Prepayment Assumption Rates			
LIBOR	100%	300%	450%	600%
0.1000%	18.5%	7.9%	(0.4)%	(8.9)%
0.1590%	18.3%	7.6%	(0.7)%	(9.3)%
3.2295%	3.8%	(7.5)%	(16.4)%	(25.7)%
6.3000% and above	**	**	**	**

# **SECURITY GROUP 10**

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

	PSA Prepayment Assumption Rates				
LIBOR	100%	300%	450%	700%	900%
0.1000%	39.9%	25.0%	13.1%	(8.5)%	(27.8)%
0.1590%	39.2%	24.3%	12.4%	(9.1)%	(28.4)%
2.2045%	14.4%	0.7%	(10.3)%	(30.1)%	(47.9)%
4.2500% and above	**	**	**	**	**

#### **SECURITY GROUP 11**

# Sensitivity of Class SQ to Prepayments Assumed Price 10.25%\*

	PSA Prepayment Assumption Rates				
LIBOR	100%	300%	500%	750%	1,000%
0.1000%	40.6%	25.8%	9.9%	(12.0)%	(37.0)%
0.1590%	39.9%	25.1%	9.2%	(12.6)%	(37.5)%
2.4545%	14.7%	1.1%	(13.6)%	(33.8)%	(56.9)%
4.7500% and above	**	**	**	**	2012

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

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

#### Sensitivity of Class IP to Prepayments Assumed Price 12.5%\*

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

187%	250%	300%	460%	500%
8.0%	8.0%	8.0%	0.0%	(2.2)%

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

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

187%	250%	300%	481%	500%
16.0%	12.6%	10.0%	0.0%	(1.0)%

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

#### CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

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

#### **REMIC Elections**

In the opinion of Cleary Gottlieb Steen & Hamilton LLP, the Trust will constitute a Single REMIC Series as to the Group 1 Trust Assets, the Group 3 Trust Assets, the Group 4 Trust Assets, the Group 5 Trust Assets, the Group 7 Trust Assets, the Group 8 Trust Assets, the Group 9 Trust Assets, the Group 10 Trust Assets, the Group 11 Trust Assets and the Group 12 Trust Assets, and a Double REMIC Series as to the Group 2 Trust Assets and the Group 6 Trust Assets, each for United States federal income tax purposes. Separate REMIC elections will be made for the Group 1 REMIC, the Group 2 Issuing REMIC, the Group 2 Pooling REMIC, the Group 3 REMIC, the Group 4 REMIC, Group 5 REMIC, the Group 6 Issuing REMIC, the Group 6 Pooling REMIC, the Group 7 REMIC, the Group 8 REMIC, the Group 9 REMIC, the Group 10 REMIC, the Group 11 REMIC and the Group 12 REMIC.

# **Regular Securities**

The Regular Securities will be treated as debt instruments issued by the Group 1 REMIC, the Group 2 Issuing REMIC, the Group 3 REMIC, the Group 4 REMIC, Group 5 REMIC, the Group 6 Issuing REMIC, the Group 7 REMIC, the Group 8 REMIC, the Group 9 REMIC, the Group 10 REMIC, the Group 11 REMIC and the Group 12 REMIC, as applicable, for United States federal income tax purposes. Income on the Regular Securities must be reported under an accrual method of accounting.

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

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

Group(s)	<u>PSA</u>
1 and 10	450%
2, 5 and 12	250%
3	400%
4	350%
6	320%
7	240%
8	325%
9	300%
11	500%

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

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

#### **Residual Securities**

The Class R1 Securities will represent the beneficial ownership of the Residual Interest in the Group 1 REMIC. The Class RR2 Securities will represent the beneficial ownership of the Residual Interest in the Group 2 Issuing REMIC and the beneficial ownership of the Residual Interest in the Group 2 Pooling REMIC. The Class R3 Securities will represent the beneficial ownership of the Residual Interest in the Group 3 REMIC. The Class R4 Securities will represent the beneficial ownership of the Residual Interest in the Group 4 REMIC. The Class R5 Securities will represent the beneficial ownership of the Residual Interest in the Group 5 REMIC. The Class RR6 Securities will represent the beneficial ownership of the Residual Interest in the Group 6 Issuing REMIC and the beneficial ownership of the Residual Interest in the Group 6 Pooling REMIC. The Class R7 Securities will represent the beneficial ownership of the Residual Interest in the Group 7 REMIC. The Class R8 Securities will represent the beneficial ownership of the Residual Interest in the Group 8 REMIC. The Class R9 Securities will represent the beneficial ownership of the Residual Interest in the Group 9 REMIC. The Class R10 Securities will represent the beneficial ownership of the Residual Interest in the Group 10 REMIC. The Class R11 Securities will represent the beneficial ownership of the Residual Interest in the Group 11 REMIC. The Class R12 Securities will represent the beneficial ownership of the Residual Interest in the Group 12 REMIC. The Residual Securities, i.e., the Class R1, RR2, R3, R4, R5, RR6, R7, R8, R9, R10, R11 and R12 Securities, generally will be treated as "residual interests" in a REMIC for domestic building and loan associations and as "real estate assets" for REITs, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular, but will not be treated as debt for United States federal income tax purposes. Instead, the Holders of the Residual Securities will be required to report, and will be taxed on, their pro rata shares of the taxable income or loss of the related Trust REMIC or Trust REMICs, as applicable, and these requirements will continue until there are no outstanding regular interests in the respective Trust REMIC or Trust REMICs, as applicable. Thus, Residual Holders will have taxable income attributable to the Residual Securities even though they will not receive principal or interest distributions with respect to the Residual Securities, which could result in a negative after-tax return for the Residual Holders. Even though the Holders of the Residual Securities are not entitled to any stated principal or interest payments on the Residual Securities, the related Trust REMIC or Trust REMICs, as applicable, 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 Certificate 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.

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 ("Similar Law").

Fiduciaries of any such Plans or governmental or church plans subject to Similar Law 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 from (1) December 1, 2020 on the Fixed Rate and Delay Classes and (2) December 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.

Available Combinations(1)

REMIC Securities				MX S	MX Securities			
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP	Final Distribution Date(4)
Security Group 2 Combination 1								
IA PI	\$ 8,004,449 19,952,847	OI	\$ 27,957,296	NTL(PT/PAC/AD)	3.00%	FIX/IO	38382LF97	December 2050
<b>Security Group 5</b> Combination 2(5)								
DP	\$ 95,765,851	О	\$ 95,765,851	PAC	1.50%	FIX	38382LG21	December 2050
		DA	95,765,851	PAC	0.75	FIX	38382LG39	December 2050
		DB	95,765,851	PAC	1.00	FIX	38382LG47	December 2050
		DC	95,765,851	PAC	1.25	FIX	38382LG54	December 2050
		DE	95,765,851	PAC	1.75	FIX	38382LG62	December 2050
		DG	95,765,851	PAC	2.00	FIX	38382LG70	December 2050
		DH	95,765,851	PAC	2.25	FIX	38382LG88	December 2050
		DI	67,036,095	NTL(PAC)	2.50	FIX/IO	38382LG96	December 2050
Combination $3(5)$								
DU	\$ 14,817,546	$\Omega$	\$ 14,817,546	SUP	0.75%	FIX	38382LH20	December 2050
		UB	14,817,546	SUP	1.00	FIX	38382LH38	December 2050
		CC	14,817,546	SUP	1.25	FIX	38382LH46	December 2050
		CD	14,817,546	SUP	1.50	FIX	38382LH53	December 2050
		UE	14,817,546	SUP	1.75	FIX	38382LH61	December 2050
		DO	14,817,546	SUP	2.00	FIX	38382LH79	December 2050
		HI	14,817,546	SUP	2.25	FIX	38382LH87	December 2050
		II	10,372,282	NTL(SUP)	2.50	FIX/IO	38382LH95	December 2050

REMIC Securities				MX	MX Securities			
	Original Class Principal Balance or Class Notional	Related	Maximum Original Class Principal Balance or Class Notional	Principal	Interest	Interest	CUSIP	Final Distribution
Class	Balance	MX Class	Balance(2)	Type(3)	Rate	Type(3)	Number	Date(4)
Combination 4(5)								
EP	\$164,035,857	Ы	\$164,035,857	PAC	1.75%	FIX	383821,128	December 2050
		EA	164,035,857	PAC	0.75	FIX	38382LJ36	December 2050
		EB	164,035,857	PAC	1.00	FIX	38382LJ44	December 2050
		EC	164,035,857	PAC	1.25	FIX	38382LJ51	December 2050
		ED	164,035,857	PAC	1.50	FIX	38382LJ69	December 2050
		EG	164,035,857	PAC	2.00	FIX	38382LJ77	December 2050
		EH	164,035,857	PAC	2.25	FIX	38382LJ85	December 2050
		EI	114,825,099	NTL(PAC)	2.50	FIX/IO	383821,193	December 2050
Combination $5(5)$								
EU	\$ 25,380,746	YA	\$ 25,380,746	SUP	0.75%	FIX	38382LK26	December 2050
		YB	25,380,746	SUP	1.00	FIX	38382LK34	December 2050
		YC	25,380,746	SUP	1.25	FIX	38382LK42	December 2050
		YD	25,380,746	SUP	1.50	FIX	38382LK59	December 2050
		YE	25,380,746	SUP	1.75	FIX	38382LK67	December 2050
		YG	25,380,746	SUP	2.00	FIX	38382LK75	December 2050
		YH	25,380,746	SUP	2.25	FIX	38382LK83	December 2050
		YI	17,766,522	NTL(SUP)	2.50	FIX/IO	38382LK91	December 2050
Combination 6								
DB(6)	\$ 95,765,851	AB	\$110,583,397	PT	1.00%	FIX	38382LL25	December 2050
UB(6)	14,817,546							
Combination /	,							
DC(6) UC(6)	\$ 95,765,851 14,817,546	AC	\$110,583,397	PT	1.25%	FIX	38382LL33	December 2050
Combination 8								
D(6) UD(6)	\$ 95,765,851 14,817,546	AD	\$110,583,397	PT	1.50%	FIX	38382LL41	December 2050
Combination 9								
DE(6) UE(6)	\$ 95,765,851 14,817,546	AE	\$110,583,397	PT	1.75%	FIX	38382LL58	December 2050

REMIC Securities	ities			MX	MX Securities			
	Original Class Principal Balance or Class Notional	Related	Maximum Original Class Principal Balance or Class Notional	Principal	Interest	Interest	CUSIP	Final Distribution
Class	Balance	MX Class	Balance(2)	Type(3)	Rate	Type(3)	Number	Date(4)
Combination 10								
DI(6)	\$ 67,036,095	AI	\$ 77,408,377	NTL(PT)	2.50%	FIX/IO	38382LL66	December 2050
UI(6)	10,372,282							
Combination 11								
UB(6)	\$ 14,817,546	AU	\$ 40,198,292	SUP	1.00%	FIX	38382LL74	December 2050
YB(6)	25,380,746							
Combination 12								
EB(6)	\$164,035,857	В	\$189,416,603	PT	1.00%	FIX	38382LI82	December 2050
YB(6)	25,380,746							
Combination 13								
EC(6)	\$164,035,857	BC	\$189,416,603	PT	1.25%	FIX	38382LL90	December 2050
YC(6)	25,380,746							
Combination 14								
ED(6)	\$164,035,857	BD	\$189,416,603	PT	1.50%	FIX	38382LM24	December 2050
YD(6)	25,380,746							
Combination 15								
E(6)	\$164,035,857	BE	\$189,416,603	PT	1.75%	FIX	38382LM32	December 2050
YE(6)	25,380,746							
Combination 16								
EI(6)	\$114,825,099	BI	\$132,591,621	NTL(PT)	2.50%	FIX/IO	38382LM40	December 2050
YI(6)	17,766,522							
Combination 17								
DB(6)	\$ 95,765,851	BP	\$259,801,708	PAC	1.00%	FIX	38382LM57	December 2050
EB(6)	164,035,857							
Combination 18								
UC(6)	\$ 14,817,546	BU	\$ 40,198,292	SUP	1.25%	FIX	38382LM65	December 2050
YC(6)	25,380,746							
Combination 19								
DC(6)	\$ 95,765,851	С	\$300,000,000	PT	1.25%	FIX	38382LM73	December 2050
EC(6)	164,035,857							
UC(6)	14,817,546							
YC(6)	25,380,746							

REMIC Securities	urities			W	MX Securities			
	Original Class Principal Balance or Class Notional	Related	Maximum Original Class Principal Balance or Class Notional	Principal	Interest	Interest	CUSIP	Final Distribution
Class	Balance	MX Class	Balance(2)	Type(3)	Rate	Type(3)	Number	Date(4)
Combination 20								
DB(6)	\$ 95,765,851	CB	\$300,000,000	PT	1.00%	FIX	38382LM81	December 2050
EB(6)	164,035,857							
UB(6)	14,817,546							
YB(6)	25,380,746							
Combination 21								
D(6)	\$ 95,765,851	CD	\$300,000,000	PT	1.50%	FIX	38382LM99	December 2050
ED(6)	164,035,857							
(9) (n)	14,817,546							
YD(6)	25,380,746							
Combination 22								
DE(6)	\$ 95,765,851	CE	\$300,000,000	PT	1.75%	FIX	38382LN23	December 2050
E(6)	164,035,857							
UE(6)	14,817,546							
YE(6)	25,380,746							
Combination 23								
AI(6)	\$ 77,408,377	CI	\$209,999,998	NTL(PT)	2.50%	FIX/IO	38382LN31	December 2050
BI(6)	132,591,621							
Combination 24								
DC(6)	\$ 95,765,851	CP	\$259,801,708	PAC	1.25%	FIX	38382LN49	December 2050
EC(6)	164,035,857							
Combination 25								
(9) (1)	\$ 14,817,546	CO	\$ 40,198,292	SUP	1.50%	FIX	38382LN56	December 2050
YD(6)	25,380,746							
Combination 26								
D(6)	\$ 95,765,851	PD	\$259,801,708	PAC	1.50%	FIX	38382LN64	December 2050
ED(6)	164,035,857							
Security Group 7								
Combination 27								
HA	\$ 688,000	HP	\$ 1,250,000	SC/PAC/AD	2.50%	FIX	38382LN72	December 2050
HB	324,000							
HC	238,000							

REMIC Securities	rities			MX	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 9 Combination 28								
SB	\$ 18,786,682	SI	\$57,634,680	NTL(PT)		OI/ANI	38382LN80	38382LN80 December 2050
SC	11,594,409							
SE	27,253,589							
Security Group 12								
Combination 29(5)								
KA	\$ 62,165,000	IP	\$31,082,500	NTL(PAC/AD)	3.00%	FIX/IO	38382LN98	December 2050
		KB	62,165,000	PAC/AD	0.50	FIX	38382LP21	December 2050
		KC	62,165,000	PAC/AD	0.75	FIX	38382LP39	December 2050
		KD	62,165,000	PAC/AD	1.00	FIX	38382LP47	December 2050
		KE	62,165,000	PAC/AD	1.25	FIX	38382LP54	December 2050
		KG	62,165,000	PAC/AD	1.50	FIX	38382LP62	December 2050
		KH	62,165,000	PAC/AD	1.75	FIX	38382LP70	December 2050

1) All exchanges must comply with minimum denomination restrictions.

The amount shown for each MX Class represents the maximum Original Class Principal Balance (or original Class Notional Balance) of that Class, assuming it were to be issued on the Closing Date. 7

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

See "Yield, Maturity and Prepayment Considerations — Final Distribution Date" in this Supplement. (4) In the case of Combinations 2, 3, 4, 5 and 29, various subcombinations are permitted. See "Description of the Securities — Modifications and Exchange" in the Base Offering Circular for a discussion of subcombinations. (3)

(6) MX Class.

The Interest Rate will be calculated as described under "Terms Sheet — Interest Rates" in this Supplement. 0

# Schedule II

# SCHEDULED PRINCIPAL BALANCES

Distribution Date	Class PB	Class GA	Class DP
Initial Balance	\$39,905,694.00	\$7,132,000.00	\$95,765,851.00
January 2021	39,750,985.49	7,108,981.21	95,497,664.31
February 2021	39,584,151.32	7,080,872.26	95,192,269.77
March 2021	39,405,268.38	7,047,686.72	94,849,825.60
April 2021	39,214,422.87	7,009,447.21	94,470,527.99
May 2021	39,011,710.24	6,966,185.38	94,054,611.03
June 2021	38,797,235.16	6,917,941.96	93,602,346.58
July 2021	38,571,111.38	6,864,766.71	93,114,044.08
August 2021	38,333,461.68	6,806,718.45	92,590,050.26
September 2021	38,084,417.71	6,743,864.91	92,030,748.81
October 2021	37,824,119.92	6,676,282.69	91,436,559.99
November 2021	37,552,717.39	6,604,057.13	90,807,940.17
December 2021	37,270,367.70	6,527,282.16	90,145,381.31
January 2022	36,977,236.77	6,446,060.12	89,449,410.36
February 2022	36,673,498.70	6,360,501.57	88,720,588.62
March 2022	36,359,335.60	6,270,725.03	87,959,511.02
April 2022	36,034,937.35	6,176,856.79	87,166,805.37
May 2022	35,700,501.48	6,079,030.57	86,343,131.50
June 2022	35,356,232.91	5,977,387.26	85,489,180.41
July 2022	35,002,343.73	5,872,074.55	84,605,673.29
August 2022	34,639,053.00	5,763,246.63	83,693,360.55
September 2022	34,266,586.48	5,651,063.79	82,753,020.76
October 2022	33,885,176.41	5,535,692.03	81,785,459.54
November 2022	33,495,061.26	5,417,302.66	80,791,508.44
December 2022	33,096,485.42	5,296,071.86	79,772,023.73
January 2023	32,689,698.98	5,172,180.24	78,727,885.13
February 2023	32,274,957.45	5,045,812.40	77,659,994.59
March 2023	31,863,652.00	4,917,156.43	76,569,274.94
April 2023	31,455,753.58	4,786,403.44	75,456,668.53
May 2023	31,051,233.33	4,653,747.05	74,323,135.86
June 2023	30,650,062.65	4,523,843.10	73,203,064.95
July 2023	30,252,213.16	4,396,635.26	72,096,301.26
August 2023	29,857,656.73	4,272,068.31	71,002,691.99
September 2023	29,466,365.42	4,150,088.15	69,922,086.07
October 2023	29,078,311.57	4,030,641.80	68,854,334.11
November 2023	28,693,467.69	3,913,677.35	67,799,288.38
December 2023	28,311,806.56	3,799,143.91	66,756,802.86
January 2024	27,933,301.14	3,686,991.66	65,726,733.13
February 2024	27,557,924.64	3,577,171.78	64,708,936.40
March 2024	27,185,650.46	3,469,636.43	63,703,271.49
April 2024	26,816,452.26	3,364,338.75	62,709,598.81
May 2024	26,450,303.86	3,261,232.84	61,727,780.34
June 2024	26,087,179.33	3,160,273.71	60,757,679.60
July 2024	25,727,052.94	3,061,417.29	59,799,161.67
August 2024	25,369,899.16	2,964,620.42	58,852,093.12

Distribution Date	Class PB	Class GA	Class DP
September 2024	\$25,015,692.69	\$2,869,840.80	\$57,916,342.03
October 2024	24,664,408.40	2,777,037.00	56,991,777.97
November 2024	24,316,021.40	2,686,168.43	56,078,271.99
December 2024	23,970,506.98	2,597,195.31	55,175,696.56
January 2025	23,627,840.64	2,510,078.70	54,283,925.62
February 2025	23,287,998.07	2,424,780.41	53,402,834.50
March 2025	22,950,955.18	2,341,263.06	52,532,299.96
April 2025	22,616,688.04	2,260,055.31	51,672,200.13
May 2025	22,285,172.95	2,181,642.24	50,822,414.52
June 2025	21,956,386.38	2,105,928.28	49,982,824.01
July 2025	21,630,305.00	2,032,821.10	49,153,310.79
August 2025	21,306,905.67	1,962,231.53	48,333,758.42
September 2025	20,986,165.44	1,894,073.42	47,524,051.74
October 2025	20,668,061.53	1,828,263.55	46,724,076.91
November 2025	20,352,571.36	1,764,721.55	45,933,721.36
December 2025	20,039,672.54	1,703,369.76	45,152,873.80
January 2026	19,729,342.85	1,644,133.20	44,381,424.20
February 2026	19,421,560.25	1,586,939.40	43,619,263.74
March 2026	19,116,302.89	1,531,718.40	42,866,284.88
April 2026	18,813,549.09	1,478,402.60	42,122,381.25
May 2026	18,513,277.34	1,426,926.71	41,387,447.71
June 2026	18,215,466.33	1,377,227.66	40,661,380.29
July 2026	17,920,094.89	1,329,244.53	39,944,076.20
August 2026	17,627,142.04	1,282,918.49	39,235,433.82
September 2026	17,336,586.97	1,238,192.70	38,535,352.67
October 2026	17,048,409.05	1,195,012.26	37,843,733.40
November 2026	16,762,587.79	1,153,324.15	37,160,477.79
December 2026	16,479,102.90	1,113,077.16	36,485,488.75
January 2027	16,197,934.22	1,074,221.83	35,818,670.25
February 2027	15,919,061.78	1,036,710.36	35,159,927.38
March 2027	15,642,465.77	1,000,496.61	34,509,166.29
April 2027	15,368,844.83	965,536.02	33,866,294.18
May 2027	15,099,826.40	931,785.52	33,231,219.33
June 2027	14,835,335.04	899,203.54	32,604,883.55
July 2027	14,575,296.52	867,749.92	31,989,960.07
August 2027	14,319,637.81	837,385.87	31,386,245.74
September 2027	14,068,287.04	808,073.92	30,793,540.98
October 2027	13,821,173.52	779,777.89	30,211,649.67
November 2027	13,578,227.67	752,462.84	29,640,379.16
December 2027	13,339,381.07	726,095.01	29,079,540.15
January 2028	13,104,566.37	700,641.81	28,528,946.67
February 2028	12,873,717.32	676,071.75	27,988,415.99
March 2028	12,646,768.74	652,354.42	27,457,768.62
April 2028	12,423,656.49	629,460.47	26,936,828.18
May 2028	12,204,317.48	607,361.52	26,425,421.39
June 2028	11,988,689.63	586,030.19	25,923,378.02
July 2028	11,776,711.87	565,440.03	25,430,530.83
August 2028	11,568,324.09	545,565.49	24,946,715.50
September 2028	11,363,467.19	526,381.89	24,471,770.59

Distribution Date	Class PB	_	Class GA	Class DP
October 2028	\$11,162,083.00	\$	507,865.41	\$24,005,537.53
November 2028	10,964,114.29		489,993.05	23,547,860.48
December 2028	10,769,504.76		472,742.56	23,098,586.38
January 2029	10,578,199.02		456,092.50	22,657,564.85
February 2029	10,390,142.57		440,022.14	22,224,648.14
March 2029	10,205,281.81		424,511.46	21,799,691.10
April 2029	10,023,563.98		409,541.14	21,382,551.15
May 2029	9,844,937.20		395,092.51	20,973,088.20
June 2029	9,669,350.40		381,147.54	20,571,164.62
July 2029	9,496,753.37		367,688.83	20,176,645.22
August 2029	9,327,096.69		354,699.56	19,789,397.17
September 2029	9,160,331.74		342,163.51	19,409,289.99
October 2029	8,996,410.70		330,065.00	19,036,195.49
November 2029	8,835,286.51		318,388.90	18,669,987.75
December 2029	8,676,912.90		307,120.58	18,310,543.05
January 2030	8,521,244.32		296,245.93	17,957,739.87
February 2030	8,368,235.96		285,751.33	17,611,458.82
March 2030	8,217,843.77		275,623.60	17,271,582.61
April 2030	8,070,024.37		265,850.05	16,937,996.03
May 2030	7,924,735.12		256,418.39	16,610,585.89
June 2030	7,781,934.04		247,316.78	16,289,241.01
July 2030	7,641,579.87		238,533.78	15,973,852.17
August 2030	7,503,631.98		230,058.34	15,664,312.06
September 2030	7,368,050.44		221,879.79	15,360,515.29
October 2030	7,234,795.92		213,987.83	15,062,358.31
November 2030	7,103,829.78		206,372.51	14,769,739.43
December 2030	6,975,113.96		199,024.23	14,482,558.71
January 2031	6,848,611.07		191,933.72	14,200,718.01
February 2031	6,724,284.29		185,092.01	13,924,120.93
March 2031	6,602,097.40		178,490.48	13,652,672.75
April 2031	6,482,014.79		172,120.76	13,386,280.45
May 2031	6,364,001.43		165,974.80	13,124,852.63
June 2031	6,248,022.82		160,044.83	12,868,299.52
July 2031	6,134,045.08		154,323.31	12,616,532.96
August 2031	6,022,034.84		148,803.01	12,369,466.31
September 2031	5,911,959.28		143,476.92	12,127,014.51
October 2031	5,803,786.13		138,338.28	11,889,093.97
November 2031	5,697,483.64		133,380.55	11,655,622.59
December 2031	5,593,020.57		128,597.44	11,426,519.74
January 2032	5,490,366.20		123,982.86	11,201,706.22
February 2032	5,389,490.30		119,530.94	10,981,104.21
March 2032	5,290,363.14		115,236.00	10,764,637.29
April 2032	5,192,955.47		111,092.57	10,552,230.40
May 2032	5,097,238.54		107,095.36	10,343,809.80
June 2032	5,003,184.03		103,239.27	10,139,303.08
July 2032	4,910,764.12		99,519.37	9,938,639.08
August 2032	4,819,951.42		95,930.90	9,741,747.93
September 2032	4,730,718.99		92,469.28	9,548,561.02
October 2032	4,643,040.36		89,130.07	9,359,010.91

Distribution Date	Class PB	Class GA	Class DP
November 2032	\$ 4,556,889.45	\$ 85,908.99	\$ 9,173,031.41
December 2032	4,472,240.63	82,801.91	8,990,557.47
January 2033	4,389,068.69	79,804.85	8,811,525.22
February 2033	4,307,348.83	76,913.94	8,635,871.92
March 2033	4,227,056.64	74,125.48	8,463,535.95
April 2033	4,148,168.15	71,435.88	8,294,456.77
May 2033	4,070,659.74	68,841.67	8,128,574.95
June 2033	3,994,508.20	66,339.52	7,965,832.10
July 2033	3,919,690.69	63,926.19	7,806,170.87
August 2033	3,846,184.75	61,598.58	7,649,534.93
September 2033	3,773,968.29	59,353.66	7,495,868.98
October 2033	3,703,019.58	57,188.55	7,345,118.67
November 2033	3,633,317.25	55,100.45	7,197,230.64
December 2033	3,564,840.28	53,086.63	7,052,152.49
January 2034	3,497,567.98	51,144.51	6,909,832.75
February 2034	3,431,480.02	49,271.55	6,770,220.85
March 2034	3,366,556.40	47,465.33	6,633,267.16
	3,302,777.45	45,723.50	6,498,922.91
April 2034	3,240,123.80	44,043.79	6,367,140.21
May 2034		42,424.02	6,237,872.02
June 2034	3,178,576.44	42,424.02	6,111,072.16
July 2034	3,118,116.64	,	5,986,695.27
August 2034	3,058,725.98	39,355.93	
September 2034	3,000,386.37	37,903.60	5,864,696.79
October 2034	2,943,079.98	36,503.20	5,745,032.96
November 2034	2,886,789.31	35,152.90	5,627,660.83
December 2034	2,831,497.13	33,850.92	5,512,538.18
January 2035	2,777,186.49	32,595.57	5,399,623.59
February 2035	2,723,840.73	31,385.20	5,288,876.34
March 2035	2,671,443.46	30,218.22	5,180,256.47
April 2035	2,619,978.55	29,093.09	5,073,724.74
May 2035	2,569,430.17	28,008.34	4,969,242.59
June 2035	2,519,782.70	26,962.54	4,866,772.16
July 2035	2,471,020.83	25,954.30	4,766,276.30
August 2035	2,423,129.47	24,982.31	4,667,718.49
September 2035	2,376,093.79	24,045.28	4,571,062.88
October 2035	2,329,899.20	23,141.97	4,476,274.28
November 2035	2,284,531.37	22,271.18	4,383,318.10
December 2035	2,239,976.17	21,431.77	4,292,160.41
January 2036	2,196,219.74	20,622.61	4,202,767.86
February 2036	2,153,248.44	19,842.64	4,115,107.72
March 2036	2,111,048.84	19,090.81	4,029,147.85
April 2036	2,069,607.75	18,366.14	3,944,856.68
May 2036	2,028,912.19	17,667.65	3,862,203.20
June 2036	1,988,949.40	16,994.42	3,781,156.99
July 2036	1,949,706.84	16,345.54	3,701,688.16
August 2036	1,911,172.15	15,720.15	3,623,767.35
September 2036	1,873,333.20	15,117.41	3,547,365.75
October 2036	1,836,178.06	14,536.52	3,472,455.06
November 2036	1,799,694.98	13,976.70	3,399,007.49

Distribution Date	Class PB	Class GA	Class DP
December 2036	\$ 1,763,872.43	\$ 13,437.19	\$ 3,326,995.76
January 2037	1,728,699.06	12,917.28	3,256,393.08
February 2037	1,694,163.69	12,416.25	3,187,173.15
March 2037	1,660,255.37	11,933.45	3,119,310.12
April 2037	1,626,963.29	11,468.22	3,052,778.65
May 2037	1,594,276.84	11,019.92	2,987,553.83
June 2037	1,562,185.58	10,587.96	2,923,611.21
July 2037	1,530,679.25	10,171.75	2,860,926.79
August 2037	1,499,747.75	9,770.73	2,799,476.98
September 2037	1,469,381.17	9,384.34	2,739,238.65
October 2037	1,439,569.75	9,012.08	2,680,189.07
November 2037	1,410,303.88	8,653.43	2,622,305.94
December 2037	1,381,574.14	8,307.90	2,565,567.34
January 2038	1,353,371.24	7,975.02	2,509,951.77
February 2038	1,325,686.07	7,654.34	2,455,438.11
March 2038	1,298,509.65	7,345.42	2,402,005.63
April 2038	1,271,833.17	7,047.84	2,349,633.97
May 2038	1,245,647.94	6,761.19	2,298,303.15
•	1,219,945.45	6,485.07	2,247,993.56
June 2038	1,194,717.30	6,219.12	2,198,685.91
July 2038		5,962.95	2,150,361.32
August 2038	1,169,955.25	. ,-	2,130,301.32
September 2038	1,145,651.20	5,716.22	
October 2038	1,121,797.18	5,478.59	2,056,587.33
November 2038	1,098,385.34	5,249.72	2,011,101.81
December 2038	1,075,407.99	5,029.31	1,966,527.08
January 2039	1,052,857.54	4,817.05	1,922,845.89
February 2039	1,030,726.55	4,612.64	1,880,041.30
March 2039	1,009,007.69	4,415.80	1,838,096.70
April 2039	987,693.77	4,226.25	1,796,995.76
May 2039	966,777.69	4,043.73	1,756,722.47
June 2039	946,252.51	3,867.99	1,717,261.09
July 2039	926,111.38	3,698.78	1,678,596.20
August 2039	906,347.57	3,535.86	1,640,712.63
September 2039	886,954.46	3,379.00	1,603,595.50
October 2039	867,925.55	3,227.99	1,567,230.22
November 2039	849,254.44	3,082.61	1,531,602.45
December 2039	830,934.86	2,942.66	1,496,698.10
January 2040	812,960.61	2,807.93	1,462,503.38
February 2040	795,325.63	2,678.24	1,429,004.71
March 2040	778,023.94	2,553.41	1,396,188.78
April 2040	761,049.66	2,433.26	1,364,042.53
May 2040	744,397.03	2,317.61	1,332,553.14
June 2040	728,060.37	2,206.31	1,301,708.00
July 2040	712,034.09	2,099.18	1,271,494.77
August 2040	696,312.72	1,996.09	1,241,901.32
September 2040	680,890.86	1,896.88	1,212,915.73
October 2040	665,763.21	1,801.41	1,184,526.32
November 2040	650,924.55	1,709.55	1,156,721.62
December 2040	636,369.78	1,621.15	1,129,490.38

Distribution Date	_	Class PB	Class GA	Class DP
January 2041	\$	622,093.84	\$ 1,536.10	\$ 1,102,821.53
February 2041		608,091.78	1,454.27	1,076,704.23
March 2041		594,358.76	1,375.54	1,051,127.84
April 2041		580,889.96	1,299.80	1,026,081.91
May 2041		567,680.71	1,226.94	1,001,556.17
June 2041		554,726.37	1,156.85	977,540.58
July 2041		542,022.39	1,089.42	954,025.24
August 2041		529,564.32	1,024.57	931,000.46
September 2041		517,347.77	962.20	908,456.72
October 2041		505,368.40	902.21	886,384.69
November 2041		493,622.00	844.51	864,775.20
December 2041		482,104.37	789.03	843,619.26
January 2042		470,811.44	735.67	822,908.03
February 2042		459,739.16	684.37	802,632.86
March 2042		448,883.58	635.03	782,785.23
April 2042		438,240.80	587.60	763,356.81
<u></u>		427,807.00	542.00	744,339.41
May 2042		427,807.00	498.16	725,724.99
June 2042			456.01	707,505.67
July 2042		407,551.37	415.50	689,673.70
August 2042		397,722.21		672,221.50
September 2042		388,087.37	376.56	,
October 2042		378,643.34	339.13	655,141.60
November 2042		369,386.68	303.16	638,426.71
December 2042		360,313.99	268.59	622,069.63
January 2043		351,421.94	235.36	606,063.34
February 2043		342,707.26	203.44	590,400.91
March 2043		334,166.73	172.76	575,075.58
April 2043		325,797.19	143.29	560,080.68
May 2043		317,595.53	114.98	545,409.70
June 2043		309,558.70	87.78	531,056.21
July 2043		301,683.69	61.65	517,013.95
August 2043		293,967.55	36.55	503,276.74
September 2043		286,407.39	12.44	489,838.53
October 2043		279,000.35	0.00	476,693.38
November 2043		271,743.64	0.00	463,835.47
December 2043		264,634.51	0.00	451,259.08
January 2044		257,670.24	0.00	438,958.62
February 2044		250,848.19	0.00	426,928.56
March 2044		244,165.74	0.00	415,163.52
April 2044		237,620.33	0.00	403,658.21
May 2044		231,209.43	0.00	392,407.42
June 2044		224,930.57	0.00	381,406.06
July 2044		218,781.32	0.00	370,649.12
August 2044		212,759.27	0.00	360,131.71
September 2044		206,862.09	0.00	349,849.01
October 2044		201,087.45	0.00	339,796.29
November 2044		195,433.10	0.00	329,968.93
December 2044		189,896.79	0.00	320,362.39
January 2045		184,476.35	0.00	310,972.19

Distribution Date	Class PB		Class GA		Class DP
February 2045	\$ 179,169.61	\$	0.00	\$	301,793.98
March 2045	173,974.46		0.00		292,823.46
April 2045	168,888.83		0.00		284,056.43
May 2045	163,910.67		0.00		275,488.75
June 2045	159,037.97		0.00		267,116.39
July 2045	154,268.76		0.00		258,935.36
August 2045	149,601.11		0.00		250,941.77
September 2045	145,033.11		0.00		243,131.81
October 2045	140,562.89		0.00		235,501.72
November 2045	136,188.62		0.00		228,047.82
December 2045	131,908.49		0.00		220,766.52
January 2046	127,720.73		0.00		213,654.28
February 2046	123,623.60		0.00		206,707.62
March 2046	119,615.39		0.00		199,923.15
April 2046	115,694.41		0.00		193,297.52
May 2046	111,859.02		0.00		186,827.48
June 2046	108,107.59		0.00		180,509.80
July 2046	104,438.53		0.00		174,341.34
August 2046	100,850.27		0.00		168,319.02
September 2046	97,341.28		0.00		162,439.81
October 2046	93,910.04		0.00		156,700.73
November 2046	90,555.08		0.00		151,098.88
December 2046	87,274.93		0.00		145,631.40
January 2047	84,068.17		0.00		140,295.50
February 2047	80,933.38		0.00		135,088.42
March 2047	77,869.18		0.00		130,007.48
April 2047	74,874.23		0.00		125,050.04
May 2047	71,947.18		0.00		120,213.50
June 2047	69,086.73		0.00		115,495.33
July 2047	66,291.59		0.00		110,893.05
August 2047	63,560.51		0.00		106,404.20
September 2047	60,892.23		0.00		102,026.40
October 2047	58,285.54		0.00		97,757.31
November 2047	55,739.25		0.00		93,594.61
December 2047	53,252.17		0.00		89,536.07
January 2048	50,823.17		0.00		85,579.46
February 2048	48,451.10		0.00		81,722.61
March 2048	46,134.85		0.00		77,963.41
April 2048	43,873.33		0.00		74,299.77
May 2048	41,665.46		0.00		70,729.65
June 2048	39,510.19		0.00		67,251.04
July 2048	37,406.50		0.00		63,861.99
August 2048	35,353.35		0.00		60,560.56
September 2048	33,349.75		0.00		57,344.87
October 2048	31,394.73		0.00		54,213.08
November 2048	29,487.31		0.00		51,163.36
December 2048	27,626.56		0.00		48,193.95
January 2049	25,811.55		0.00		45,303.10
February 2049	24,041.37		0.00		42,489.10
	,,		0.00		,,

Distribution Date	Class PB		Class GA		Class PB Class GA		Class DP	
March 2049	\$	22,315.11	\$	0.00	\$ 39,750.28			
April 2049		20,631.91		0.00	37,085.01			
May 2049		18,990.91		0.00	34,491.67			
June 2049		17,391.25		0.00	31,968.69			
July 2049		15,832.10		0.00	29,514.52			
August 2049		14,312.65		0.00	27,127.65			
September 2049		12,832.10		0.00	24,806.60			
October 2049		11,389.65		0.00	22,549.92			
November 2049		9,984.55		0.00	20,356.18			
December 2049		8,616.03		0.00	18,223.98			
January 2050		7,283.34		0.00	16,151.96			
February 2050		5,985.76		0.00	14,138.77			
March 2050		4,722.56		0.00	12,183.11			
April 2050		3,493.05		0.00	10,283.69			
May 2050		2,296.54		0.00	8,439.24			
June 2050		1,132.34		0.00	6,648.53			
July 2050		0.00		0.00	4,910.35			
August 2050		0.00		0.00	3,223.52			
September 2050		0.00		0.00	1,586.86			
October 2050 and thereafter		0.00		0.00	0.00			

Distribution Date	Class EP	Classes MA and MZ (in the aggregate)	Class HA
Initial Balance	\$164,035,857.00	\$25,696,475.00	\$688,000.00
January 2021	163,576,484.13	25,581,133.81	685,303.72
February 2021	163,053,378.52	25,452,529.67	682,384.45
March 2021	162,466,811.16	25,310,767.10	679,243.42
April 2021	161,817,118.10	25,155,970.42	675,882.04
May 2021	161,104,700.32	24,988,283.55	672,301.88
June 2021	160,330,023.49	24,807,869.95	668,504.70
July 2021	159,493,617.64	24,614,912.32	664,492.39
August 2021	158,596,076.67	24,409,612.42	660,267.05
September 2021	157,638,057.80	24,192,190.71	655,830.91
October 2021	156,620,280.89	23,962,886.03	651,186.38
November 2021	155,543,527.66	23,721,955.17	646,336.03
December 2021	154,408,640.76	23,469,672.46	641,282.58
January 2022	153,216,522.81	23,206,329.23	636,028.91
February 2022	151,968,135.23	22,932,233.29	630,578.05
March 2022	150,664,497.10	22,647,708.37	624,933.19
April 2022	149,306,683.75	22,353,093.45	619,097.64
May 2022	147,895,825.43	22,048,742.11	613,074.89
June 2022	146,433,105.72	21,735,021.85	606,868.53
July 2022	144,919,759.94	21,412,313.29	600,482.33
August 2022	143,357,073.45	21,081,009.43	593,920.14
September 2022	141,746,379.86	20,741,514.85	587,185.97
October 2022	140,089,059.10	20,394,244.81	580,283.95
November 2022	138,386,535.53	20,039,624.41	573,218.32
December 2022	136,640,275.81	19,678,087.73	565,993.44
January 2023	134,851,786.83	19,310,076.82	558,613.77
February 2023	133,022,613.53	18,936,040.83	551,083.88
March 2023	131,154,336.58	18,568,330.71	543,408.44
April 2023	129,248,570.15	18,206,839.94	535,795.63
May 2023	127,306,959.43	17,851,463.73	528,244.92
June 2023	125,388,407.16	17,502,099.06	520,755.77
July 2023	123,492,648.63	17,158,644.60	513,327.65
August 2023	121,619,422.11	16,821,000.70	505,960.07
September 2023	119,768,468.82	16,489,069.38	498,652.48
October 2023	117,939,532.87	16,162,754.26	491,404.40
November 2023	116,132,361.25	15,841,960.59	484,215.30
December 2023	114,346,703.80	15,526,595.16	477,084.69
January 2024	112,582,313.17	15,216,566.32	470,012.06
February 2024	110,838,944.77	14,911,783.94	462,996.93
March 2024	109,116,356.79	14,612,159.41	456,038.80
April 2024	107,414,310.12	14,317,605.54	449,137.18
May 2024	105,732,568.33	14,028,036.64	442,291.60
June 2024	104,070,897.68	13,743,368.42	435,501.57
July 2024	102,429,067.02	13,463,517.98	428,766.61
August 2024	100,806,847.83	13,188,403.82	422,086.26
September 2024	99,204,014.16	12,917,945.77	415,460.06
October 2024	97,620,342.59	12,652,065.02	408,887.53
November 2024	96,055,612.21	12,390,684.06	402,368.21

Distribution Date		Class EP	Classes MA and MZ (in the aggregate)	Class HA
December 2024	\$ 94,	509,604.62	\$12,133,726.65	\$395,901.66
January 2025	92,	982,103.86	11,881,117.84	389,487.41
February 2025	91,	472,896.41	11,632,783.92	383,125.02
March 2025	89,	981,771.16	11,388,652.40	376,814.05
April 2025	88,	508,519.37	11,148,652.02	370,554.05
May 2025	87,	052,934.65	10,912,712.67	364,344.59
June 2025	85,	614,812.94	10,680,765.44	358,185.22
July 2025	84,	193,952.49	10,452,742.54	352,075.53
August 2025	82,	790,153.82	10,228,577.33	346,015.08
September 2025	81,	403,219.68	10,008,204.27	340,003.45
October 2025	80,	032,955.07	9,792,439.63	334,040.21
November 2025	78,	679,167.19	9,581,222.22	328,124.96
December 2025	77,	341,665.39	9,374,457.78	322,257.28
January 2026	76,	020,261.20	9,172,053.96	316,436.76
February 2026	74,	714,768.26	8,973,920.32	310,662.98
March 2026	73,	425,002.33	8,779,968.27	304,935.56
April 2026	72,	150,781.23	8,590,111.02	299,254.08
May 2026	70,	891,924.85	8,404,263.57	293,618.15
June 2026	69,	648,255.11	8,222,342.68	288,027.38
July 2026	68,	419,595.95	8,044,266.77	282,481.38
August 2026	67,	205,773.29	7,869,955.98	276,979.76
September 2026	66,	006,615.03	7,699,332.07	271,522.13
October 2026	64,	821,951.00	7,532,318.39	266,108.11
November 2026		651,612.97	7,368,839.89	260,737.33
December 2026	62,	495,434.60	7,208,823.04	255,409.41
January 2027		353,251.43	7,052,195.83	250,183.66
February 2027		224,900.88	6,898,887.72	245,061.86
March 2027		110,222.19	6,748,829.63	240,042.01
April 2027		009,056.44	6,601,953.88	235,122.09
May 2027		921,246.47	6,458,194.20	230,300.17
June 2027		848,405.52	6,317,485.68	225,574.32
July 2027		795,112.53	6,179,764.72	220,942.68
August 2027		761,019.53	6,044,969.07	216,403.40
September 2027	,	745,784.64	5,913,037.71	211,954.67
October 2027		749,071.96	5,783,910.92	207,594.73
November 2027		770,551.47	5,657,530.18	203,321.84
December 2027		809,898.94	5,533,838.19	199,134.29
January 2028		866,795.81	5,412,778.82	195,030.41
February 2028		940,929.13	5,294,297.09	191,008.57
March 2028	,	031,991.39	5,178,339.16	187,067.16
April 2028		139,680.50	5,064,852.31	183,204.61
May 2028		263,699.66	4,953,784.88	179,419.36
June 2028		403,757.29	4,845,086.30	175,709.91
July 2028		559,566.90	4,738,707.02	172,074.77
August 2028		730,847.04	4,634,598.54	168,512.47
September 2028		917,321.21	4,532,713.32	165,021.60
October 2028		118,717.74	4,433,004.83	161,600.75
November 2028	40,	334,769.76	4,335,427.50	158,248.55

Distribution Date	_	Class EP	asses MA and MZ in the aggregate)	Class HA
December 2028	\$	39,565,215.05	\$ 4,239,936.69	\$154,963.64
January 2029		38,809,796.04	4,146,488.68	151,744.71
February 2029		38,068,259.65	4,055,040.65	148,590.46
March 2029		37,340,357.27	3,965,550.68	145,499.61
April 2029		36,625,844.65	3,877,977.70	142,470.93
May 2029		35,924,481.85	3,792,281.49	139,503.19
June 2029		35,236,033.12	3,708,422.67	136,595.19
July 2029		34,560,266.89	3,626,362.67	133,745.75
August 2029		33,896,955.65	3,546,063.72	130,953.72
September 2029		33,245,875.90	3,467,488.82	128,217.98
October 2029		32,606,808.06	3,390,601.74	125,537.40
November 2029		31,979,536.44	3,315,367.01	122,910.91
December 2029		31,363,849.14	3,241,749.87	120,337.44
January 2030		30,759,537.99	3,169,716.31	117,815.95
February 2030		30,166,398.49	3,099,233.01	115,345.40
March 2030		29,584,229.75	3,030,267.33	112,924.80
April 2030		29,012,834.41	2,962,787.31	110,553.15
May 2030		28,452,018.62	2,896,761.67	108,229.49
June 2030		27,901,591.91	2,832,159.76	105,952.88
July 2030		27,361,367.20	2,768,951.57	103,722.38
August 2030		26,831,160.70	2,707,107.71	101,537.08
September 2030		26,310,791.88	2,646,599.41	99,396.09
October 2030		25,800,083.37	2,587,398.48	97,298.53
November 2030		25,298,860.97	2,529,477.33	95,243.54
December 2030		24,806,953.53	2,472,808.93	93,230.28
January 2031		24,324,192.93	2,417,366.83	91,257.93
February 2031		23,850,414.03	2,363,125.10	89,325.67
March 2031		23,385,454.61	2,310,058.38	87,432.70
April 2031		22,929,155.32	2,258,141.82	85,578.26
May 2031		22,481,359.62	2,207,351.08	83,761.57
June 2031		22,041,913.75	2,157,662.35	81,981.89
July 2031		21,610,666.67	2,109,052.28	80,238.48
August 2031		21,187,470.01	2,061,498.04	78,530.62
September 2031		20,772,178.03	2,014,977.26	76,857.61
October 2031		20,364,647.59	1,969,468.04	75,218.76
November 2031		19,964,738.05	1,924,948.92	73,613.38
December 2031		19,572,311.30	1,881,398.90	72,040.81
January 2032		19,187,231.66	1,838,797.43	70,500.39
February 2032		18,809,365.87	1,797,124.37	68,991.49
March 2032		18,438,583.01	1,756,359.99	67,513.49
April 2032		18,074,754.51	1,716,485.00	66,065.75
May 2032		17,717,754.07	1,677,480.50	64,647.69
June 2032		17,367,457.63	1,639,327.97	63,258.71
July 2032		17,023,743.35	1,602,009.30	61,898.23
August 2032		16,686,491.54	1,565,506.73	60,565.69
September 2032		16,355,584.63	1,529,802.91	59,260.52
October 2032		16,030,907.17	1,494,880.82	57,982.17
November 2032		15,712,345.73	1,460,723.80	56,730.12

Distribution Date	_	Class EP	asses MA and MZ in the aggregate)	_	Class HA
December 2032	\$	15,399,788.92	\$ 1,427,315.55	\$	55,503.84
January 2033		15,093,127.33	1,394,640.10		54,302.81
February 2033		14,792,253.49	1,362,681.82		53,126.53
March 2033		14,497,061.85	1,331,425.40		51,974.50
April 2033		14,207,448.73	1,300,855.87		50,846.24
May 2033		13,923,312.31	1,270,958.54		49,741.27
June 2033		13,644,552.57	1,241,719.06		48,659.12
July 2033		13,371,071.30	1,213,123.36		47,599.34
August 2033		13,102,772.01	1,185,157.67		46,561.49
September 2033		12,839,559.95	1,157,808.51		45,545.11
October 2033		12,581,342.06	1,131,062.69		44,549.78
November 2033		12,328,026.93	1,104,907.29		43,575.08
December 2033		12,079,524.80	1,079,329.64		42,620.59
January 2034		11,835,747.49	1,054,317.38		41,685.91
February 2034		11,596,608.42	1,029,858.37		40,770.64
March 2034		11,362,022.54	1,005,940.75		39,874.38
April 2034		11,131,906.33	982,552.89		38,996.76
May 2034		10,906,177.77	959,683.42		38,137.40
June 2034		10,684,756.28	937,321.20		37,295.94
July 2034		10,467,562.75	915,455.33		36,472.01
August 2034		10,254,519.48	894,075.13		35,665.25
September 2034		10,045,550.15	873,170.16		34,875.33
October 2034		9,840,579.82	852,730.18		34,101.91
November 2034		9,639,534.89	832,745.18		33,344.64
December 2034		9,442,343.08	813,205.35		32,603.21
January 2035		9,248,933.40	794,101.11		31,877.29
February 2035		9,059,236.14	775,423.05		31,166.57
March 2035		8,873,182.84	757,161.99		30,470.75
April 2035		8,690,706.27	739,308.91		29,789.52
May 2035		8,511,740.39	721,855.00		29,122.59
June 2035		8,336,220.38	704,791.64		28,469.66
July 2035		8,164,082.56	688,110.38		27,830.46
August 2035		7,995,264.40	671,802.97		27,204.70
September 2035		7,829,704.50	655,861.29		26,592.12
October 2035		7,667,342.55	640,277.44		25,992.44
November 2035		7,508,119.34	625,043.67		25,405.41
December 2035		7,351,976.73	610,152.37		24,830.76
January 2036		7,198,857.61	595,596.13		24,268.25
February 2036		7,048,705.90	581,367.68		23,717.62
March 2036		6,901,466.56	567,459.88		23,178.65
April 2036		6,757,085.50	553,865.79		22,651.08
May 2036		6,615,509.63	540,578.58		22,134.69
June 2036		6,476,686.82	527,591.57		21,629.25
July 2036		6,340,565.88	514,898.24		21,134.53
August 2036		6,207,096.52	502,492.18		20,650.33
September 2036		6,076,229.39	490,367.15		20,176.41
October 2036		5,947,916.02	478,517.01		19,712.58
November 2036		5,822,108.81	466,935.76		19,258.63

Distribution Date	_	Class EP	sses MA and MZ the aggregate)	_	Class HA
December 2036	\$	5,698,761.02	\$ 455,617.55	\$	18,814.35
January 2037		5,577,826.78	444,556.63		18,379.55
February 2037		5,459,261.01	433,747.37		17,954.03
March 2037		5,343,019.48	423,184.27		17,537.60
April 2037		5,229,058.75	412,861.95		17,130.09
May 2037		5,117,336.16	402,775.15		16,731.29
June 2037		5,007,809.82	392,918.69		16,341.04
July 2037		4,900,438.63	383,287.54		15,959.16
August 2037		4,795,182.20	373,876.75		15,585.48
September 2037		4,692,000.89	364,681.49		15,219.83
October 2037		4,590,855.78	355,697.03		14,862.04
November 2037		4,491,708.64	346,918.73		14,511.96
December 2037		4,394,521.97	338,342.07		14,169.42
January 2038		4,299,258.91	329,962.61		13,834.27
February 2038		4,205,883.30	321,776.00		13,506.35
March 2038		4,114,359.62	313,778.01		13,185.53
April 2038		4,024,653.01	305,964.47		12,871.64
May 2038		3,936,729.24	298,331.32		12,564.55
June 2038		3,850,554.71	290,874.58		12,264.12
July 2038		3,766,096.40	283,590.35		11,970.21
August 2038		3,683,321.94	276,474.82		11,682.68
September 2038		3,602,199.52	269,524.26		11,401.41
October 2038		3,522,697.92	262,735.01		11,126.26
November 2038		3,444,786.47	256,103.52		10,857.10
December 2038		3,368,435.10	249,626.28		10,593.82
January 2039		3,293,614.26	243,299.87		10,336.28
February 2039		3,220,294.94	237,120.95		10,084.38
March 2039		3,148,448.68	231,086.24		9,837.99
April 2039		3,078,047.51	225,192.53		9,597.00
May 2039		3,009,064.01	219,436.70		9,361.29
June 2039		2,941,471.22	213,815.68		9,130.76
July 2039		2,875,242.72	208,326.45		8,905.30
August 2039		2,810,352.53	202,966.10		8,684.81
September 2039		2,746,775.18	197,731.73		8,469.17
October 2039		2,684,485.65	192,620.55		8,258.29
November 2039		2,623,459.38	187,629.80		8,052.07
December 2039		2,563,672.26	182,756.79		7,850.40
January 2040		2,505,100.64	177,998.88		7,653.21
February 2040		2,447,721.28	173,353.50		7,460.38
March 2040		2,391,511.38	168,818.13		7,271.84
April 2040		2,336,448.57	164,390.30		7,087.48
May 2040		2,282,510.87	160,067.60		6,907.23
June 2040		2,229,676.71	155,847.67		6,731.00
July 2040		2,177,924.94	151,728.20		6,558.69
August 2040		2,127,234.76	147,706.93		6,390.24
September 2040		2,077,585.79	143,781.65		6,225.55
October 2040		2,028,958.01	139,950.19		6,064.56
November 2040		1,981,331.77	136,210.45		5,907.17

Distribution Date	_	Class EP	sses MA and MZ the aggregate)	_	Class HA
December 2040	\$	1,934,687.78	\$ 132,560.36	\$	5,753.32
January 2041		1,889,007.12	128,997.88		5,602.92
February 2041		1,844,271.20	125,521.03		5,455.92
March 2041		1,800,461.80	122,127.89		5,312.23
April 2041		1,757,561.00	118,816.56		5,171.78
May 2041		1,715,551.25	115,585.18		5,034.51
June 2041		1,674,415.30	112,431.93		4,900.35
July 2041		1,634,136.24	109,355.06		4,769.23
August 2041		1,594,697.45	106,352.81		4,641.09
September 2041		1,556,082.63	103,423.49		4,515.87
October 2041		1,518,275.79	100,565.45		4,393.50
November 2041		1,481,261.23	97,777.06		4,273.92
December 2041		1,445,023.54	95,056.72		4,157.07
January 2042		1,409,547.59	92,402.90		4,042.90
February 2042		1,374,818.56	89,814.06		3,931.34
March 2042		1,340,821.86	87,288.73		3,822.35
April 2042		1,307,543.22	84,825.44		3,715.86
May 2042		1,274,968.61	82,422.78		3,611.82
June 2042		1,243,084.26	80,079.36		3,510.18
July 2042		1,211,876.66	77,793.81		3,410.90
August 2042		1,181,332.55	75,564.81		3,313.91
September 2042		1,151,438.94	73,391.05		3,219.17
October 2042		1,122,183.05	71,271.27		3,126.63
November 2042		1,093,552.36	69,204.22		3,036.24
December 2042		1,065,534.58	67,188.68		2,947.96
January 2043		1,038,117.64	65,223.47		2,861.74
February 2043		1,011,289.72	63,307.41		2,777.54
March 2043		985,039.19	61,439.38		2,695.31
April 2043		959,354.66	59,618.25		2,615.01
May 2043		934,224.95	57,842.95		2,536.60
June 2043		909,639.09	56,112.41		2,460.04
July 2043		885,586.31	54,425.58		2,385.28
August 2043		862,056.05	52,781.45		2,312.29
September 2043		839,037.95	51,179.02		2,241.03
October 2043		816,521.83	49,617.33		2,171.47
November 2043		794,497.71	48,095.42		2,103.56
December 2043		772,955.82	46,612.36		2,037.27
January 2044		751,886.53	45,167.24		1,972.56
February 2044		731,280.44	43,759.17		1,909.40
March 2044		711,128.29	42,387.28		1,847.76
April 2044		691,421.01	41,050.73		1,787.59
May 2044		672,149.70	39,748.68		1,728.88
June 2044		653,305.64	38,480.33		1,671.59
July 2044		634,880.25	37,244.86		1,615.68
August 2044		616,865.14	36,041.52		1,561.12
September 2044		599,252.05	34,869.54		1,507.90
October 2044		582,032.91	33,728.17		1,455.97
November 2044		565,199.78	32,616.70		1,405.30

Distribution Date	Class EP	ses MA and MZ the aggregate)	Class HA
December 2044	\$ 548,744.87	\$ 31,534.41	\$ 1,355.88
January 2045	532,660.55	30,480.61	1,307.67
February 2045	516,939.34	29,454.63	1,260.65
March 2045	501,573.87	28,455.79	1,214.78
April 2045	486,556.96	27,483.46	1,170.05
May 2045	471,881.52	26,536.99	1,126.43
June 2045	457,540.62	25,615.78	1,083.89
July 2045	443,527.46	24,719.21	1,042.41
August 2045	429,835.37	23,846.70	1,001.96
September 2045	416,457.80	22,997.66	962.53
October 2045	403,388.33	22,171.54	924.09
November 2045	390,620.67	21,367.78	886.61
December 2045	378,148.64	20,585.83	850.08
January 2046	365,966.19	19,825.19	814.48
February 2046	354,067.36	19,085.32	779.78
March 2046	342,446.35	18,365.72	745.96
April 2046	331,097.42	17,665.91	713.01
May 2046	320,014.98	16,985.40	680.90
June 2046	309,193.52	16,323.72	649.61
July 2046	298,627.67	15,680.42	619.13
August 2046	288,312.13	15,055.04	589.44
September 2046	278,241.71	14,447.14	560.52
October 2046	268,411.33	13,856.30	532.35
November 2046	258,816.01	13,282.10	504.91
December 2046	249,450.85	12,724.13	478.20
January 2047	240,311.06	12,181.99	452.18
February 2047	231,391.94	11,655.29	426.85
March 2047	222,688.88	11,143.64	402.20
April 2047	214,197.35	10,646.68	378.19
May 2047	205,912.92	10,164.04	354.83
June 2047	197,831.24	9,695.36	332.09
July 2047	189,948.06	9,240.30	309.96
August 2047	182,259.18	8,798.52	288.42
September 2047	174,760.52	8,369.69	267.47
October 2047	167,448.05	7,953.47	247.09
November 2047	160,317.84	7,549.56	227.26
December 2047	153,366.01	7,157.65	207.98
January 2048	146,588.79	6,777.43	189.22
February 2048	139,982.47	6,408.60	170.99
March 2048	133,543.39	6,050.89	153.26
April 2048	127,268.00	5,704.01	136.02
May 2048	121,152.79	5,367.68	119.26
June 2048	115,194.34	5,041.63	102.98
July 2048	109,389.28	4,725.61	87.15
August 2048	103,734.31	4,419.35	71.77
September 2048	98,226.21	4,122.62	56.83
October 2048	92,861.81	3,835.15	42.32
November 2048	92,601.61 87,638.00	3,556.72	28.22
NOVELLIDE 2010	07,030.00	5,550.72	20.22

Distribution Date	n Date Class EP		Class EP Classes MA and MZ (in the aggregate)		Class HA	
December 2048	\$	82,551.73	\$	3,287.09	\$	14.54
January 2049		77,600.04		3,026.03		1.25
February 2049		72,779.99		2,773.33		0.00
March 2049		68,088.71		2,528.76		0.00
April 2049		63,523.40		2,292.11		0.00
May 2049		59,081.31		2,063.18		0.00
June 2049		54,759.73		1,841.77		0.00
July 2049		50,556.02		1,627.67		0.00
August 2049		46,467.59		1,420.70		0.00
September 2049		42,491.91		1,220.66		0.00
October 2049		38,626.47		1,027.38		0.00
November 2049		34,868.84		840.68		0.00
December 2049		31,216.63		660.37		0.00
January 2050		27,667.50		486.30		0.00
February 2050		24,219.14		318.29		0.00
March 2050		20,869.32		156.18		0.00
April 2050		17,615.83		0.00		0.00
May 2050		14,456.50		0.00		0.00
June 2050		11,389.23		0.00		0.00
July 2050		8,411.93		0.00		0.00
August 2050		5,522.57		0.00		0.00
September 2050		2,719.17		0.00		0.00
October 2050 and thereafter		0.00		0.00		0.00

Distribution Date	Class HB	Class HC	Classes KA and KZ (in the aggregate)
Initial Balance	\$324,000.00	\$238,000.00	\$62,320,000.00
January 2021	322,736.20	236,484.89	62,118,507.47
February 2021	321,367.20	234,901.50	61,894,219.58
March 2021	319,893.56	233,250.74	61,647,246.42
April 2021	318,315.94	231,533.58	61,377,719.87
May 2021	316,635.08	229,751.03	61,085,793.55
June 2021	314,851.80	227,904.17	60,771,642.70
July 2021	312,966.99	225,994.10	60,435,464.07
August 2021	310,981.62	224,021.99	60,077,475.69
September 2021	308,896.76	221,989.04	59,697,916.73
October 2021	306,713.52	219,896.52	59,297,047.21
November 2021	304,433.11	217,745.71	58,875,147.74
December 2021	302,056.82	215,537.96	58,432,519.20
January 2022	299,585.99	213,274.64	57,969,482.40
February 2022	297,022.05	210,957.18	57,486,377.69
March 2022	294,366.50	208,587.02	56,983,564.56
April 2022	291,620.90	206,165.66	56,461,421.20
May 2022	288,786.87	203,695.51	55,920,344.03
June 2022	285,866.13	201,198.29	55,360,747.17
July 2022	282,860.42	198,686.15	54,783,061.91
August 2022	279,771.58	196,179.69	54,187,736.19
September 2022	276,601.48	193,683.11	53,575,233.94
October 2022	273,352.08	191,207.72	52,946,034.53
November 2022	270,025.35	188,753.34	52,300,632.07
December 2022	266,623.37	186,319.78	51,639,534.78
January 2023	263,148.23	183,906.86	50,963,264.27
February 2023	259,602.07	181,514.42	50,272,354.86
March 2023	255,987.11	179,142.27	49,567,352.83
April 2023	252,401.56	176,790.23	48,848,815.64
May 2023	248,845.17	174,458.14	48,137,934.37
June 2023	245,317.70	172,145.83	47,434,627.73
July 2023	241,818.90	169,853.12	46,738,815.27
August 2023	238,348.53	167,579.84	46,050,417.37
September 2023	234,906.34	165,325.83	45,369,355.25
October 2023	231,492.09	163,090.93	44,695,550.92
November 2023	228,105.56	160,874.96	44,028,927.22
December 2023	224,746.49	158,677.76	43,369,407.77
January 2024	221,414.67	156,499.18	42,716,916.99
February 2024	218,109.85	154,339.05	42,071,380.06
March 2024	214,831.81	152,197.22	41,432,722.97
April 2024	211,580.32	150,073.51	40,800,872.45
May 2024	208,355.15	147,967.79	40,175,755.99
June 2024	205,156.08	145,879.88	39,557,301.83
July 2024	201,982.88	143,809.65	38,945,438.97
August 2024	198,835.34	141,756.93	38,340,097.12
September 2024	195,713.23	139,721.58	37,741,206.74
October 2024	192,616.34	137,703.44	37,148,698.99
November 2024	189,544.46	135,702.36	36,562,505.75

Distribution Date	Class HB	Class HC	Classes KA and KZ (in the aggregate)
December 2024	\$186,497.36	\$133,718.20	\$35,982,559.61
January 2025	183,474.84	131,750.82	35,408,793.86
February 2025	180,476.69	129,800.05	34,841,142.47
March 2025	177,502.70	127,865.77	34,279,540.10
April 2025	174,552.65	125,947.83	33,723,922.09
May 2025	171,626.35	124,046.08	33,174,224.45
June 2025	168,723.60	122,160.39	32,630,383.84
July 2025	165,844.18	120,290.61	32,092,337.60
August 2025	162,987.91	118,436.61	31,560,023.70
September 2025	160,154.57	116,598.25	31,033,380.76
October 2025	157,343.98	114,775.40	30,512,348.04
November 2025	154,555.94	112,967.91	29,996,865.42
December 2025	151,790.26	111,175.66	29,486,873.41
January 2026	149,046.73	109,398.51	28,982,313.15
February 2026	146,325.18	107,636.33	28,483,126.37
March 2026	143,625.41	105,889.00	27,989,255.41
April 2026	140,947.24	104,156.37	27,500,643.21
May 2026	138,290.48	102,438.33	27,017,233.31
June 2026	135,654.94	100,734.74	26,538,969.83
July 2026	133,040.44	99,045.48	26,065,797.47
August 2026	130,446.80	97,370.42	25,597,661.51
September 2026	127,873.84	95,709.45	25,134,507.78
October 2026	125,321.38	94,062.43	24,676,282.70
November 2026	122,789.24	92,441.82	24,222,933.22
December 2026	120,277.26	90,847.84	23,774,406.87
January 2027	117,811.59	89,280.05	23,331,156.52
February 2027	115,394.92	87,738.05	22,895,901.00
March 2027	113,026.31	86,221.42	22,468,499.33
April 2027	110,704.80	84,729.76	22,048,812.96
May 2027	108,429.49	83,262.66	21,636,705.76
June 2027	106,199.47	81,819.74	21,232,043.97
July 2027	104,013.86	80,400.60	20,834,696.13
August 2027	101,871.78	79,004.87	20,444,533.09
September 2027	99,772.40	77,632.17	20,061,427.91
October 2027	97,714.87	76,282.14	19,685,255.89
November 2027	95,698.38	74,954.41	19,315,894.47
December 2027	93,722.13	73,648.62	18,953,223.24
January 2028	91,785.32	72,364.43	18,597,123.87
February 2028	89,887.20	71,101.48	18,247,480.10
March 2028	88,027.00	69,859.44	17,904,177.67
April 2028	86,203.97	68,637.97	17,567,104.34
May 2028	84,417.40	67,436.74	17,236,149.80
June 2028	82,666.57	66,255.43	16,911,205.66
July 2028	80,950.77	65,093.72	16,592,165.43
August 2028	79,269.33	63,951.28	16,278,924.47
September 2028	77,621.57	62,827.82	15,971,379.94
October 2028	76,006.82	61,723.03	15,669,430.83
November 2028	74,424.45	60,636.61	15,372,977.87

Distribution Date	Class HB	Class HC	Classes KA and KZ (in the aggregate)
December 2028	\$ 72,873.81	\$ 59,568.25	\$15,081,923.51
January 2029	71,354.28	58,517.68	14,796,171.92
February 2029	69,865.26	57,484.61	14,515,628.92
March 2029	68,406.14	56,468.74	14,240,202.01
April 2029	66,976.34	55,469.82	13,969,800.25
May 2029	65,575.27	54,487.56	13,704,334.34
June 2029	64,202.39	53,521.69	13,443,716.50
July 2029	62,857.12	52,571.95	13,187,860.49
August 2029	61,538.94	51,638.09	12,936,681.60
September 2029	60,247.30	50,719.84	12,690,096.57
October 2029	58,981.68	49,816.95	12,448,023.61
November 2029	57,741.58	48,929.18	12,210,382.35
December 2029	56,526.48	48,056.28	11,977,093.84
January 2030	55,335.90	47,198.00	11,748,080.49
February 2030	54,169.35	46,354.12	11,523,266.08
March 2030	53,026.37	45,524.41	11,302,575.72
April 2030	51,906.47	44,708.62	11,085,935.83
May 2030	50,809.22	43,906.54	10,873,274.12
June 2030	49,734.16	43,117.94	10,664,519.56
July 2030	48,680.86	42,342.62	10,459,602.37
August 2030	47,648.88	41,580.34	10,258,453.99
September 2030	46,637.80	40,830.90	10,061,007.05
October 2030	45,647.22	40,094.09	9,867,195.38
November 2030	44,676.72	39,369.71	9,676,953.95
December 2030	43,725.91	38,657.55	9,490,218.89
January 2031	42,794.40	37,957.42	9,306,927.44
February 2031	41,881.80	37,269.12	9,127,017.93
March 2031	40,987.75	36,592.46	8,950,429.79
April 2031	40,111.88	35,927.25	8,777,103.50
May 2031	39,253.82	35,273.30	8,606,980.60
June 2031	38,413.23	34,630.43	8,440,003.63
July 2031	37,589.75	33,998.46	8,276,116.17
August 2031	36,783.04	33,377.21	8,115,262.77
September 2031	35,992.79	32,766.51	7,957,388.97
October 2031	35,218.65	32,166.18	7,802,441.24
November 2031	34,460.30	31,576.06	7,650,367.03
December 2031	33,717.45	30,995.98	7,501,114.67
January 2032	32,989.77	30,425.78	7,354,633.45
February 2032	32,276.96	29,865.29	7,210,873.50
March 2032	31,578.73	29,314.36	7,069,785.86
April 2032	30,894.80	28,772.82	6,931,322.43
May 2032	30,224.86	28,240.53	6,795,435.95
June 2032	29,568.66	27,717.34	6,662,080.00
July 2032	28,925.90	27,203.09	6,531,208.95
August 2032	28,296.33	26,697.64	6,402,778.02
September 2032	27,679.69	26,200.85	6,276,743.18
October 2032	27,075.70	25,712.57	6,153,061.19
November 2032	26,484.13	25,232.66	6,031,689.59

Distribution Date	Class HB	Class HC	Classes KA and KZ (in the aggregate)
December 2032	\$ 25,904.72	\$ 24,760.99	\$ 5,912,586.65
January 2033	25,337.24	24,297.42	5,795,711.37
February 2033	24,781.43	23,841.82	5,681,023.49
March 2033	24,237.08	23,394.06	5,568,483.45
April 2033	23,703.95	22,954.00	5,458,052.41
May 2033	23,181.81	22,521.53	5,349,692.19
June 2033	22,670.45	22,096.51	5,243,365.29
July 2033	22,169.65	21,678.83	5,139,034.89
August 2033	21,679.20	21,268.36	5,036,664.80
September 2033	21,198.89	20,864.99	4,936,219.48
October 2033	20,728.52	20,468.59	4,837,664.03
November 2033	20,267.89	20,079.06	4,740,964.15
December 2033	19,816.80	19,696.27	4,646,086.16
January 2034	19,375.07	19,320.13	4,552,996.96
February 2034	18,942.50	18,950.51	4,461,664.05
March 2034	18,518.91	18,587.31	4,372,055.51
April 2034	18,104.12	18,230.42	4,284,139.97
May 2034	17,697.96	17,879.75	4,197,886.64
June 2034	17,300.24	17,535.18	4,113,265.25
July 2034	16,910.81	17,196.62	4,030,246.08
August 2034	16,529.49	16,863.96	3,948,799.95
September 2034	16,156.11	16,537.12	3,868,898.17
October 2034	15,790.53	16,215.98	3,790,512.57
November 2034	15,432.58	15,900.46	3,713,615.51
December 2034	15,082.11	15,590.47	3,638,179.80
January 2035	14,738.97	15,285.90	3,564,178.74
February 2035	14,403.01	14,986.68	3,491,586.14
March 2035	14,074.08	14,692.72	3,420,376.24
April 2035	13,752.04	14,403.91	3,350,523.74
May 2035	13,436.76	14,120.19	3,282,003.82
June 2035	13,128.09	13,841.46	3,214,792.06
July 2035	12,825.91	13,567.65	3,148,864.52
August 2035	12,530.08	13,298.66	3,084,197.64
September 2035	12,240.47	13,034.42	3,020,768.33
October 2035	11,956.96	12,774.85	2,958,553.86
November 2035	11,679.42	12,519.88	2,897,531.96
December 2035	11,407.73	12,269.42	2,837,680.70
January 2036	11,141.78	12,023.39	2,778,978.60
February 2036	10,881.44	11,781.74	2,721,404.51
March 2036	10,626.60	11,544.37	2,664,937.69
April 2036	10,377.16	11,311.23	2,609,557.76
May 2036	10,133.00	11,082.23	2,555,244.72
June 2036	9,894.01	10,857.32	2,501,978.91
July 2036	9,660.08	10,636.41	2,449,741.02
August 2036	9,431.13	10,419.45	2,398,512.09
September 2036	9,207.03	10,206.37	2,348,273.51
October 2036	8,987.70	9,997.09	2,299,007.00
November 2036	8,773.04	9,791.57	2,250,694.60

Distribution Date	_	Class HB	_	Class HC	Classes KA and KZ (in the aggregate)
December 2036	\$	8,562.95	\$	9,589.73	\$ 2,203,318.66
January 2037		8,357.34		9,391.52	2,156,861.88
February 2037		8,156.12		9,196.86	2,111,307.24
March 2037		7,959.19		9,005.71	2,066,638.05
April 2037		7,766.47		8,818.00	2,022,837.89
May 2037		7,577.88		8,633.68	1,979,890.67
June 2037		7,393.32		8,452.68	1,937,780.56
July 2037		7,212.72		8,274.95	1,896,492.02
August 2037		7,036.00		8,100.44	1,856,009.81
September 2037		6,863.06		7,929.09	1,816,318.94
October 2037		6,693.85		7,760.84	1,777,404.70
November 2037		6,528.28		7,595.65	1,739,252.64
December 2037		6,366.27		7,433.47	1,701,848.58
January 2038		6,207.76		7,274.23	1,665,178.58
February 2038		6,052.66		7,117.90	1,629,228.98
March 2038		5,900.92		6,964.42	1,593,986.32
April 2038		5,752.45		6,813.74	1,559,437.43
May 2038		5,607.21		6,665.82	1,525,569.36
June 2038		5,465.10		6,520.61	1,492,369.37
July 2038		5,326.08		6,378.06	1,459,824.99
August 2038		5,190.08		6,238.13	1,427,923.95
September 2038		5,057.03		6,100.77	1,396,654.20
October 2038		4,926.88		5,965.94	1,366,003.93
November 2038		4,799.56		5,833.59	1,335,961.53
December 2038		4,675.02		5,703.69	1,306,515.59
January 2039		4,553.20		5,576.19	1,277,654.92
February 2039		4,434.04		5,451.05	1,249,368.54
March 2039		4,317.49		5,328.22	1,221,645.64
April 2039		4,203.48		5,207.68	1,194,475.63
May 2039		4,091.98		5,089.38	1,167,848.12
June 2039		3,982.93		4,973.27	1,141,752.88
July 2039		3,876.27		4,859.34	1,116,179.89
August 2039		3,771.96		4,747.53	1,091,119.29
September 2039		3,669.95		4,637.80	1,066,561.43
October 2039		3,570.18		4,530.14	1,042,496.80
November 2039		3,472.62		4,424.49	1,018,916.09
December 2039		3,377.22		4,320.82	995,810.15
January 2040		3,283.93		4,219.10	973,169.99
February 2040		3,192.70		4,119.30	950,986.80
March 2040		3,103.50		4,021.38	929,251.91
April 2040		3,016.28		3,925.31	907,956.83
May 2040		2,931.00		3,831.06	887,093.20
June 2040		2,847.63		3,738.59	866,652.83
July 2040		2,766.11		3,647.88	846,627.68
August 2040		2,686.41		3,558.89	827,009.85
September 2040		2,608.49		3,471.60	807,791.59
October 2040		2,532.32		3,385.97	788,965.29 770,523,47
November 2040		2,457.85		3,301.98	770,523.47

December 2040       \$ 2,385.06       \$ 3,219.60       \$ 752,458         January 2041       2,313.90       3,138.79       734,764         February 2041       2,244.35       3,059.53       717,432         March 2041       2,176.36       2,981.80       700,456         April 2041       2,109.91       2,905.57       683,829         May 2041       2,044.96       2,830.81       667,545         June 2041       1,981.49       2,757.49       651,596         July 2041       1,919.45       2,685.60       635,977         August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351         March 2042       1,471.42       2,158.64       522,149	KZ te)
February 2041       2,244.35       3,059.53       717,432         March 2041       2,176.36       2,981.80       700,456         April 2041       2,109.91       2,905.57       683,829         May 2041       2,044.96       2,830.81       667,545         June 2041       1,981.49       2,757.49       651,596         July 2041       1,919.45       2,685.60       635,977         August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	79
March 2041       2,176.36       2,981.80       700,456         April 2041       2,109.91       2,905.57       683,829         May 2041       2,044.96       2,830.81       667,545         June 2041       1,981.49       2,757.49       651,596         July 2041       1,919.45       2,685.60       635,977         August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	06
April 2041       2,109.91       2,905.57       683,829         May 2041       2,044.96       2,830.81       667,545         June 2041       1,981.49       2,757.49       651,596         July 2041       1,919.45       2,685.60       635,977         August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	21
May 2041       2,044.96       2,830.81       667,545         June 2041       1,981.49       2,757.49       651,596         July 2041       1,919.45       2,685.60       635,977         August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	30
June 2041       1,981.49       2,757.49       651,596         July 2041       1,919.45       2,685.60       635,977         August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	51
July 2041       1,919.45       2,685.60       635,977         August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	16
August 2041       1,858.82       2,615.10       620,681         September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	68
September 2041       1,799.57       2,545.97       605,702         October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	
October 2041       1,741.67       2,478.18       591,034         November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	
November 2041       1,685.09       2,411.72       576,670         December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	
December 2041       1,629.80       2,346.56       562,606         January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	
January 2042       1,575.78       2,282.67       548,835         February 2042       1,522.99       2,220.04       535,351	
February 2042	
March 2042	
4 /24 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
April 2042	
May 2042	
June 2042	
July 2042	
August 2042	
September 2042	
October 2042       1,142.23       1,761.53       437,186         November 2042       1,099.47       1,709.23       426,052	
December 2042	
January 2043	
February 2043	
March 2043	
April 2043	
May 2043	
June 2043	
July 2043	
August 2043	
September 2043	
October 2043	
November 2043	
December 2043	
January 2044	
February 2044	
March 2044	84
April 2044	07
May 2044	99
June 2044	24
July 2044	56
August 2044	71
September 2044	
October 2044	
November 2044	38

Distribution Date	_ (	class HB	_	Class HC	sses KA and KZ the aggregate)
December 2044	\$	304.44	\$	697.84	\$ 213,723.35
January 2045		281.63		667.44	207,438.45
February 2045		259.39		637.68	201,294.28
March 2045		237.69		608.57	195,288.03
April 2045		216.53		580.08	189,416.93
May 2045		195.90		552.21	183,678.27
June 2045		175.77		524.94	178,069.39
July 2045		156.15		498.27	172,587.66
August 2045		137.02		472.17	167,230.53
September 2045		118.37		446.65	161,995.49
October 2045		100.19		421.69	156,880.05
November 2045		82.47		397.28	151,881.81
December 2045		65.19		373.41	146,998.39
January 2046		48.35		350.06	142,227.46
February 2046		31.94		327.24	137,566.73
March 2046		15.95		304.92	133,013.96
April 2046		0.37		283.11	128,566.95
May 2046		0.00		261.79	124,223.54
June 2046		0.00		240.95	119,981.62
July 2046		0.00		220.58	115,839.12
August 2046		0.00		200.67	111,793.99
September 2046		0.00		181.22	107,844.24
October 2046		0.00		162.22	103,987.91
November 2046		0.00		143.65	100,223.07
December 2046		0.00		125.51	96,547.85
January 2047		0.00		107.80	92,960.39
February 2047		0.00		90.49	89,458.88
March 2047		0.00		73.80	86,041.55
April 2047		0.00		57.49	82,706.64
May 2047		0.00		41.57	79,452.45
June 2047		0.00		26.03	76,277.30
July 2047		0.00		10.85	73,179.55
August 2047		0.00		0.00	70,157.58
September 2047		0.00		0.00	67,209.80
October 2047		0.00		0.00	64,334.67
November 2047		0.00		0.00	61,530.67
December 2047		0.00		0.00	58,796.29
January 2048		0.00		0.00	56,130.09
February 2048		0.00		0.00	53,530.62
March 2048		0.00		0.00	50,996.47
April 2048		0.00		0.00	48,526.27
May 2048		0.00		0.00	46,118.66
June 2048		0.00		0.00	43,772.32
July 2048		0.00		0.00	41,485.95
August 2048		0.00		0.00	39,258.26
September 2048		0.00		0.00	37,088.01
October 2048		0.00		0.00	34,973.97
November 2048		0.00		0.00	32,914.95

Distribution Date	Class HB	Class HC	Classes KA and KZ (in the aggregate)
December 2048	\$ 0.00	\$ 0.00	\$ 30,909.75
January 2049	0.00	0.00	28,957.23
February 2049	0.00	0.00	27,056.25
March 2049	0.00	0.00	25,205.71
April 2049	0.00	0.00	23,404.50
May 2049	0.00	0.00	21,651.58
June 2049	0.00	0.00	19,945.88
July 2049	0.00	0.00	18,286.38
August 2049	0.00	0.00	16,672.08
September 2049	0.00	0.00	15,101.99
October 2049	0.00	0.00	13,575.14
November 2049	0.00	0.00	12,090.60
December 2049	0.00	0.00	10,647.42
January 2050	0.00	0.00	9,244.70
February 2050	0.00	0.00	7,881.55
March 2050	0.00	0.00	6,557.10
April 2050	0.00	0.00	5,270.48
May 2050	0.00	0.00	4,020.85
June 2050	0.00	0.00	2,807.40
July 2050	0.00	0.00	1,629.32
August 2050	0.00	0.00	485.82
September 2050 and thereafter	0.00	0.00	0.00

# Underlying Certificate

Ginnie Mae I or II	П
Percentage of Class in Trust	0.7741580000%
Principal Balance in Trust	\$283,259
Underlying Certificate Factor(2)	0.73178770
Original Principal Balance of Class	\$50,000,000
Principal Type(1)	PT
Final Distribution Date	March 2050
Interest Type(1)	FIX
Interest Rate	2.5%
CUSIP Number	38382DQG7
Issue Date	March 30, 2020
Class	UM(3)
Series	2020-032
Issuer	Ginnie Mae
Trust Asset Subgroup	7C

 As defined under "Class Types" in Appendix I to the Base Offering Circular.
 Underlying Certificate Factor is as of December 2020.
 More than 10% of the Mortgage Loans underlying this Underlying Certificate may be higher balance Mortgage Loans. See "Risk Factors" in this Supplement.



\$756,221,828

**Government National Mortgage Association** 

# **GINNIE MAE**®

Guaranteed REMIC
Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2020-187

OFFERING CIRCULAR SUPPLEMENT
December 23, 2020

Goldman Sachs & Co. LLC Ramirez & Co., Inc.