

## \$634,023,445 Government National Mortgage Association GINNIE MAE®

#### Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2019-140

#### The Securities

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

#### The Ginnie Mae Guaranty

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

#### The Trust and its Assets

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

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

See "Risk Factors" beginning on page S-13 which highlights some of these risks.

The Sponsor and the Co-Sponsor will offer the securities from time to time in negotiated transactions at varying prices. We expect the closing date to be November 29, 2019.

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

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

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 1						
BABI	\$44,661,406 7,443,567	2.25% 4.50	SC/PT NTL(SC/PT)	FIX FIX/IO	38382AT62 38382AT70	March 2041 March 2041
Security Group 2 Z	16,248,141	3.50	SC/PT	FIX/Z	38382AT88	October 2049
Security Group 3						
ABAC(1)	15,000,000 14,456,803	3.00 3.00	SEQ SEQ	FIX FIX	38382AT96 38382AU29	November 2049 November 2049
Security Group 4						
AW(1)	20,602,874	(5)	NTL(SC/PT)	WAC/IO/DLY	38382AU37	February 2048
MI(1)	6,101,007 3,951,044	4.00 (5)	NTL(SC/PT) NTL(SC/PT)	FIX/IO INV/IO	38382AU45 38382AU52	August 2049 July 2049
Security Group 5	3,231,011	(5)	1112(50)11)	1117710	30302.1032	July 2017
DL	261,000	3.50	PAC/AD	FIX	38382AU60	November 2049
DP	10,000,000	3.50	PAC/AD	FIX	38382AU78	August 2049
ZD	2,239,000	3.50	SUP	FIX/Z	38382AU86	November 2049
Security Group 6						
DI	26,119,212 21,703,144	5.50 5.50	NTL(PAC/AD) NTL(PAC/AD)	FIX/IO FIX/IO	38382AU94 38382AV28	November 2049 November 2049
EI	33,853,922	2.00	PAC/AD)	FIX/IO	38382AV28 38382AV36	November 2049 November 2049
PB(1)	40,742,380	2.00	PAC/AD	FIX	38382AV44	November 2049
PY	251,020	2.00	PAC/AD	FIX	38382AV51	November 2049
PZ	15,180,508 302,097	5.50 2.00	CPT/SUP PAC/AD	FIX/Z FIX	38382AV69 38382AV77	November 2049 November 2049
YP	302,097	2.00	PACIAD	FIA	36362AV11	November 2049
Security Group 7 FG	49.643.799	(5)	PT	FLT	38382AV85	November 2049
GA(1)	22,659,961	2.50	PAC	FIX	38382AV93	October 2049
GL(1)	250,541	2.50	PAC	FIX	38382AW27	November 2049
GT(1)	6,875,778	2.50	SUP	FIX	38382AW35	November 2049
SG	49,643,799	(5)	NTL(PT)	INV/IO	38382AW43	November 2049
Security Group 8	021 614	2.50	NTI (CC/DT)	EIV/IO	2020243350	Comtombou 2040
IB	921,614 614,287	2.50 2.50	NTL(SC/PT) NTL(SC/PT)	FIX/IO FIX/IO	38382AW50 38382AW68	September 2049 September 2049
IP	1.035,979	3.00	NTL(SC/PT)	FIX/IO	38382AW76	October 2049
LI	691,500	2.50	NTL(SC/PT)	FIX/IO	38382AW84	October 2049
LO(1)	691,500 921,614	0.00 0.00	SC/PT SC/PT	PO PO	38382AW92 38382AX26	October 2049 September 2049
OL(1)	614,287	0.00	SC/PT	PO	38382AX34	September 2049
OP(1) PI	1,035,979	0.00	SC/PT	PO	38382AX42	October 2049
PI	3,245,000	3.00	NTL(SC/PT)	FIX/IO	38382AX59	January 2048
PO(1)	3,245,000 33,724,768	0.00	SC/PT NTL(SC/PT)	PO INV/IO	38382AX67 38382AX75	January 2048 September 2049
SB(1)	33,724,700	(3)	NIL(SC/F1)	1111/10	36362AX13	September 2049
Security Group 9 CA(1)	80,996,592	2.50	PAC/AD	FIX	38382AX83	November 2049
CF	81,529,039	(5)	PAC/AD	FLT	38382AX91	November 2049
CS	81,529,039	(5)	NTL(PAC/AD)	INV/IO	38382AY25	November 2049
CYCZ	532,448 21,258,373	2.50 4.50	PAC/AD SUP	FIX FIX/Z	38382AY33 38382AY41	November 2049 November 2049
	21,236,373	4.30	SUP	FIA/Z	36362A141	November 2049
Security Group 10 FN(1)	6,301,420	(5)	PT	FLT	38382AY58	November 2049
NA(1)	28,695,000	2.50	PACI	FIX	38382AY66	September 2048
ND`	1,875,000	2.50	PAC II/AD	FIX	38382AY74	November 2049
NF(1)	25,443,263 25,443,263	(5)	PT NTL (PT)	FLT INV/IO	38382AY82 38382AY90	November 2049 November 2049
NU	25,443,263 2,475,632	(5) 2.50	NTL(PT) SUP/AD	FIX	38382AY90 38382AZ24	November 2049 November 2049
NY(1)	2,898,000	2.50	PACI	FIX	38382AZ32	November 2049
NZ	1,000	2.50	PAC II	FIX/Z	38382AZ40	November 2049
SNZN	6,301,420 1,000	(5) 2.50	NTL(PT) SUP	INV/IO FIX/Z	38382AZ57 38382AZ65	November 2049 November 2049
Security Group 11	1,000	2.30	301	TIME	5050274205	11070111001 2049
QO(1)	3,381,942	0.00	SC/PT	PO	38382AZ73	September 2049
QS(1)	7,832,114	(5)	NTL(SC/PT)	INV/IO	38382AZ81	July 2049
Security Group 12	0.421.222	(5)	DI GUID	ET TO	2020247763	N 1 2010
AF(1)	9,431,333 9,431,333	(5) (5)	PAC/AD NTL(PAC/AD)	FLT INV/IO	38382AZ99 38382A2A2	November 2049 November 2049
FA(1)	16,500,000	(5)	PT	FLT	38382A2B0	November 2049
KA(1)	15,856,000	2.00	PAC/AD	FIX	38382A2C8	November 2047
KL(1)	3,006,667 16,500,000	2.00 (5)	PAC/AD NTL(PT)	FIX INV/IO	38382A2D6 38382A2E4	November 2049 November 2049
SA(1)						

(Cover continued on next page)

## Citigroup

## **Academy Securities**

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Security Group 13						
BF(1)	\$ 7,148,000	(5)	PAC/AD	FLT	38382A2G9	November 2049
BS(1)	7,148,000	(5)	NTL(PAC/AD)	INV/IO	38382A2H7	November 2049
FH(1)	25,000,000	(5)	PT	FLT	38382A2J3	November 2049
KB(1)	12,557,000	2.00%	PAC/AD	FIX	38382A2K0	June 2048
KZ(1)	3,556,000	3.50	SUP	FIX/Z	38382A2L8	November 2049
SH(1)	25,000,000	(5)	NTL(PT)	INV/IO	38382A2M6	November 2049
YK(1)	1,739,000	2.00	PAC/AD	FIX	38382A2N4	November 2049
Residuals						
RR	0	0.00	NPR	NPR	38382A2P9	November 2049
R3	0	0.00	NPR	NPR	38382A2Q7	November 2049
RR9	0	0.00	NPR	NPR	38382A2R5	November 2049

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

#### **AVAILABLE INFORMATION**

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

- this Offering Circular Supplement (this "Supplement"),
- the Base Offering Circular and
- in the case of the Group 1, 2, 4, 8 and 11 securities, each disclosure document relating to the Underlying Certificates (the "Underlying Certificate Disclosure Documents").

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

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

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

#### TABLE OF CONTENTS

	Page		Page
Terms Sheet	S-3	ERISA Matters	S-51
Risk Factors	S-13	Legal Investment Considerations	S-52
The Trust Assets	S-17	Plan of Distribution	S-52
Ginnie Mae Guaranty	S-18	Increase in Size	S-53
Description of the Securities	S-18	Legal Matters	S-53
Yield, Maturity and Prepayment		Schedule I: Available Combinations	S-I-1
Considerations	S-24	Schedule II: Scheduled Principal	
Certain United States Federal Income		Balances	S-II-1
Tax Consequences	S-49	Exhibit A: Underlying Certificates	A-1

#### **TERMS SHEET**

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

Sponsor: Citigroup Global Markets Inc.Co-Sponsor: Academy Securities, Inc.Trustee: U.S. Bank National Association

**Tax Administrator:** The Trustee **Closing Date:** November 29, 2019

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

Business Day thereafter, commencing in December 2019.

#### **Trust Assets:**

Trust Asset Group or Subgroup <sup>(2)</sup>	Trust Asset Type	Certificate Rate	Original Term to Maturity (in years)
1	Underlying Certificate	(1)	(1)
2	Underlying Certificates	(1)	(1)
3	Ginnie Mae II	3.0%	30
4A	Underlying Certificate	(1)	(1)
4B	Underlying Certificate	(1)	(1)
4C	Underlying Certificate	(1)	(1)
5	Ginnie Mae II	3.5%	30
6A	Ginnie Mae II	5.5%	30
6B	Ginnie Mae II	5.5%	30
7	Ginnie Mae II	5.0%	30
8A	Underlying Certificate	(1)	(1)
8B	Underlying Certificate	(1)	(1)
8C	Underlying Certificate	(1)	(1)
8D	Underlying Certificate	(1)	(1)
8E	Underlying Certificate	(1)	(1)
8F	Underlying Certificate	(1)	(1)
9	Ginnie Mae II	4.5%	30
10A	Ginnie Mae II	4.0%	30
10B	Ginnie Mae II	4.5%	30
11A	Underlying Certificate	(1)	(1)
11B	Underlying Certificate	(1)	(1)
12	Ginnie Mae II	4.5%	30
13	Ginnie Mae II	5.0%	30

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

<sup>(2)</sup> The Group 4, 6, 8, 10 and 11 Trust Assets consist of subgroups, Subgroup 4A, Subgroup 4B, Subgroup 4C, Subgroup 6A, Subgroup 6B, Subgroup 8A, Subgroup 8B, Subgroup 8C, Subgroup 8D, Subgroup 8E, Subgroup 8F, Subgroup 10A, Subgroup 10B, Subgroup 11A and Subgroup 11B, respectively (each, a "Subgroup").

**Security Groups:** This series of Securities consists of multiple Security Groups (each, a "Group"), as shown on the front cover of this Supplement and on Schedule I to this Supplement. Except in the case of certain MX Classes in Groups 12 and 13, 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 3, 5, 6, 7, 9, 10, 12 and 13 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 3 Trust Assets</b>			
\$29,456,803(3)	358	1	3.471%
<b>Group 5 Trust Assets</b>			
\$12,500,000(3)	357	2	3.995%
<b>Subgroup 6A Trust Assets</b>			
\$40,994,288	350	10	5.948%
<b>Subgroup 6B Trust Assets</b>			
\$49,335,639	350	10	5.948%
<b>Group 7 Trust Assets</b>			
\$79,430,079	356	4	5.406%
<b>Group 9 Trust Assets</b>			
\$184,316,452	351	7	5.004%
<b>Subgroup 10A Trust Assets</b>			
\$16,803,789	355	5	4.546%
<b>Subgroup 10B Trust Assets</b>			
\$50,886,526	356	3	4.856%
<b>Group 12 Trust Assets</b>			
\$49,500,000	358	2	4.980%
Group 13 Trust Assets	/	,	
\$50,000,000	356	4	5.530%

<sup>(1)</sup> As of November 1, 2019.

<sup>(2)</sup> The Mortgage Loans underlying the Group 3, 5, 6, 7, 9, 10, 12 and 13 Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.

<sup>&</sup>lt;sup>(3)</sup> More than 10% of the Mortgage Loans underlying the Group 3 and 5 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 3, 5, 6, 7, 9, 10, 12 and 13 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 1, 2, 4, 8 and 11 Trust Assets:** See Exhibit A to this Supplement for certain information regarding the characteristics of the Mortgage Loans included in the related Underlying Trusts.

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

**Modification and Exchange:** If you own exchangeable Securities you will be able, upon notice and payment of an exchange fee, to exchange them for a proportionate interest in the related Securities shown on Schedule I to this Supplement. Under certain circumstances, Classes QW and WA will be subject to mandatory exchange, with no exchange fee, for its related REMIC Securities. *See "Description of the Securities — Modification and Exchange" in this Supplement.* 

**Increased Minimum Denomination Classes:** Each Class that constitutes a Principal Only, Interest Only or Weighted Average Coupon 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 4						
SQ	6.10% - LIBOR	4.37637%	0.00%	6.10%	0	6.10%
Security Group 7						
FG	LIBOR + 0.45%	2.21160%	0.45%	6.50%	0	0.00%
SG	6.05% – LIBOR	4.28840%	0.00%	6.05%	0	6.05%
Security Group 8						
SB	3.41% - LIBOR	1.68637%	0.00%	3.41%	0	3.41%
Security Group 9						
CF	LIBOR + 0.40%	2.15900%	0.40%	6.50%	0	0.00%
CS	6.10% - LIBOR	4.34100%	0.00%	6.10%	0	6.10%
Security Group 10						
FM	LIBOR + 0.50%	2.26538%	0.50%	6.50%	0	0.00%
FN	LIBOR + 0.50%	2.26538%	0.50%	6.50%	0	0.00%
NF	LIBOR + 0.50%	2.26538%	0.50%	6.50%	0	0.00%
NS	6.00% – LIBOR	4.23462%	0.00%	6.00%	0	6.00%
SN	6.00% – LIBOR	4.23462%	0.00%	6.00%	0	6.00%
Security Group 11						
QS	6.15% - LIBOR	4.42637%	0.00%	6.15%	0	6.15%
-						

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	LIBOR for Minimum Interest Rate
Security Group 12						
AF	LIBOR + $0.45\%$	2.21538%	0.45%	6.50%	0	0.00%
AS	6.05% - LIBOR	4.28462%	0.00%	6.05%	0	6.05%
FA	LIBOR + 0.45%	2.21538%	0.45%	6.50%	0	0.00%
FE	LIBOR + 0.45%	2.21538%	0.45%	6.50%	0	0.00%
SA	6.05% - LIBOR	4.28462%	0.00%	6.05%	0	6.05%
SE	6.05% – LIBOR	4.28462%	0.00%	6.05%	0	6.05%
Security Group 13						
BF	LIBOR + 0.40%	2.16538%	0.40%	6.50%	0	0.00%
BS	6.10% - LIBOR	4.33462%	0.00%	6.10%	0	6.10%
EF	LIBOR + 0.40%	2.16538%	0.40%	6.50%	0	0.00%
ES	6.10% - LIBOR	4.33462%	0.00%	6.10%	0	6.10%
FH	LIBOR + 0.40%	2.16538%	0.40%	6.50%	0	0.00%
SH	6.10% - LIBOR	4.33462%	0.00%	6.10%	0	6.10%

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

Each of Classes AW, IO, QW and WA is a Weighted Average Coupon Class. Class AW will accrue interest during each Accrual Period at an equivalent annualized rate derived by aggregating the accrued interest on the Subgroup 4A Trust Asset for such Accrual Period expressed as a percentage of its outstanding notional balance for such Accrual Period. Class IO will accrue interest during each Accrual Period at an equivalent annualized rate derived by aggregating the accrued interest on its related REMIC Classes for such Accrual Period expressed as a percentage of its outstanding notional balance for such Accrual Period. Each of Classes QW and WA will accrue interest during each Accrual Period at an equivalent annualized rate derived by aggregating the accrued interest on its related REMIC Classes for such Accrual Period expressed as a percentage of its outstanding principal balance for such Accrual Period, subject to certain limitations as set forth under "Description of the Securities — Modification and Exchange" in this Supplement. The approximate initial Interest Rate for each Weighted Average Coupon Class, which will be in effect for the first Accrual Period, is as follows:

Class	Approximate Initial Interest Rate
AW	2.42966%
IO	2.99309%
QW	10.25086%
WA	8.73833%

**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 BA, until retired

#### **SECURITY GROUP 2**

The Group 2 Principal Distribution Amount will be allocated to Z, until retired

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

The Group 3 Principal Distribution Amount will be allocated in the following order of priority:

- 1. To AB, up to \$1 for that Distribution Date, until retired
- 2. To AC, up to \$103,262 for that Distribution Date, until retired
- 3. To AB, until retired
- 4. To AC, until retired

#### **SECURITY GROUP 5**

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

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

#### **SECURITY GROUP 6**

The Subgroup 6A Principal Distribution Amount, the Subgroup 6B Principal Distribution Amount, the PZ1 Accrual Amount and the PZ2 Accrual Amount will be allocated as follows:

- The Subgroup 6A Principal Distribution Amount and the PZ1 Accrual Amount in the following order of priority:
- 1. Sequentially, to PB and PY, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To PZ1, until retired
- 3. Sequentially, to PB and PY, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired
- The Subgroup 6B Principal Distribution Amount and the PZ2 Accrual Amount in the following order of priority:
- 1. Sequentially, to PC and YP, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To PZ2, until retired
- 3. Sequentially, to PC and YP, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 7**

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

1. 62.4999995279% to FG, until retired

- 2. 37.5000004721% in the following order of priority:
- a. Sequentially, to GA and GL, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - b. To GT, until retired
- c. Sequentially, to GA and GL, in that order, but without regard to their Aggregate Scheduled Principal Balance, until retired

The Subgroup 8A Principal Distribution Amount, the Subgroup 8B Principal Distribution Amount, the Subgroup 8D Principal Distribution Amount, the Subgroup 8E Principal Distribution Amount and the Subgroup 8F Principal Distribution Amount will be allocated as follows:

- The Subgroup 8A Principal Distribution Amount to OP, until retired
- The Subgroup 8B Principal Distribution Amount to LO, until retired
- The Subgroup 8D Principal Distribution Amount to PO, until retired
- The Subgroup 8E Principal Distribution Amount to OB, until retired
- The Subgroup 8F Principal Distribution Amount to OL, until retired

#### **SECURITY GROUP 9**

The Group 9 Principal Distribution Amount and the CZ Accrual Amount will be allocated in the following order of priority:

- 1. To CA, CF and CY, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date, concurrently, as follows:
  - a. 49.999996934% to CF, until retired
  - b. 50.000003066%, sequentially, to CA and CY, in that order, until retired
  - 2. To CZ, until retired
- 3. To CA, CF and CY, in the same manner and priority as step 1. above, but without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 10**

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

- The NZ Accrual Amount, sequentially, to ND and NZ, in that order, until retired
- The ZN Accrual Amount, sequentially, to NU and ZN, in that order, until retired
- 37.4999947928% of the Subgroup 10A Principal Distribution Amount to FN, until retired
- 50% of the Subgroup 10B Principal Distribution Amount to NF, until retired

- The remainder of the Subgroup 10A Principal Distribution Amount and the remainder of the Subgroup 10B Principal Distribution Amount:
- 1. Sequentially, to NA and NY, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
- 2. Sequentially, to ND and NZ, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 3. Sequentially, to NU and ZN, in that order, until retired
- 4. Sequentially, to ND and NZ, in that order, but without regard to their Aggregate Scheduled Principal Balance, until retired
- 5. Sequentially, to NA and NY, in that order, but without regard to their Aggregate Scheduled Principal Balance, until retired

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

#### **SECURITY GROUP 12**

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

- The ZK Accrual Amount in the following order of priority:
- 1. To AF, KA and KL, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date, concurrently, as follows:
  - a. 33.3333321552% to AF, until retired
  - b. 66.666678448%, sequentially, to KA and KL, in that order, until retired
  - 2. To ZK, until retired
- The Group 12 Principal Distribution Amount, concurrently, as follows:
  - 1. 33.3333333333% to FA, until retired
  - 2. 66.66666667% in the following order of priority:
  - a. To AF, KA and KL, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date, concurrently, as follows:
    - i. 33.3333321552% to AF, until retired
    - ii. 66.666678448%, sequentially, to KA and KL, in that order, until retired
    - b. To ZK, until retired
  - c. To AF, KA and KL, in the same manner and priority as step 2.a., but without regard to their Aggregate Scheduled Principal Balance, until retired

The Group 13 Principal Distribution Amount and the KZ Accrual Amount will be allocated as follows:

- The KZ Accrual Amount in the following order of priority:
- 1. To BF, KB and YK, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date, concurrently, as follows:
  - a. 33.3333333333% to BF, until retired
  - b. 66.66666667%, sequentially, to KB and YK, in that order, until retired
  - 2. To KZ, until retired
- The Group 13 Principal Distribution Amount, concurrently, as follows:
  - 1. 50% to FH, until retired
  - 2. 50% in the following order of priority:
  - a. To BF, KB and YK, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date, concurrently, as follows:
    - i. 33.3333333333% to BF, until retired
    - ii. 66.66666667%, sequentially, to KB and YK, in that order, until retired
    - b. To KZ, until retired
  - c. To BF, KB and YK, in the same manner and priority as step 2.a., but without regard to their Aggregate Scheduled Principal Balance, until retired

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

	Structuring Ranges
PAC Classes	
AF, KA and KL (in the aggregate)	196% PSA through 325% PSA
BF, KB and YK (in the aggregate)	308% PSA through 475% PSA
CA, CF and CY (in the aggregate)	273% PSA through 400% PSA
DL and DP (in the aggregate)	150% PSA through 300% PSA
GA and GL (in the aggregate)	225% PSA through 425% PSA
PB and PY (in the aggregate)	250% PSA through 441% PSA
PC and YP (in the aggregate)	250% PSA through 441% PSA
PAC I Classes  NA and NY (in the aggregate)	250% PSA through 350% PSA
PAC II Classes  ND and NZ (in the aggregate)	290% PSA through 350% PSA

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

Distribution Date and, with respect to each Class other than Class Z, will be distributable as principal as set forth in this Terms Sheet under "Allocation of Principal."

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

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

Class	Original Class Notional Balance	Represents Approximately
Security Group 1		
ВІ	\$ 7,443,567	16.6666666667% of BA (SC/PT Class)
<b>Security Group 3</b>		
AI	\$ 4,818,934	33.33333333333% of AC (SEQ Class)
<b>Security Group 4</b>		
AW	20,602,874	100% of the Subgroup 4A Trust Assets
IO	30,654,925	100% of the Group 4 Trust Assets
MI	6,101,007	100% of the Subgroup 4B Trust Assets
SQ	3,951,044	100% of the Subgroup 4C Trust Assets
<b>Security Group 6</b>		
DI	\$26,119,212	63.6363636364% of PC and YP (in the aggregate) (PAC/AD Classes)
EI	21,703,144	63.6363636364% of PB and PY (in the aggregate) (PAC/AD Classes)
<b>Security Group 7</b>		
SG	\$49,643,799	100% of FG (PT Class)
<b>Security Group 8</b>		
IB	\$ 921,614	100% of OB (SC/PT Class)
$\text{IL }\dots\dots\dots\dots$	614,287	100% of OL (SC/PT Class)
IP	1,035,979	100% of OP (SC/PT Class)
LI	691,500	100% of LO (SC/PT Class)
PI	3,245,000	100% of PO (SC/PT Class)
SB	33,724,768	100% of the Subgroup 8C Trust Assets
<b>Security Group 9</b>		
CS	\$81,529,039	100% of CF (PAC/AD Class)
IC	22,499,053	27.77777778% of CA (PAC/AD Class)
<b>Security Group 10</b>	)	
NS	\$25,443,263	100% of NF (PT Class)
SN	6,301,420	100% of FN (PT Class)
<b>Security Group 1</b>	l	
QS	\$ 7,832,114	100% of the Subgroup 11B Trust Assets

Original Class Notional Balance	Represents Approximately	
2		
\$ 9,431,333	100% of AF (PAC/AD Class)	
16,500,000	100% of FA (PT Class)	
\$ 9,431,333	100% of AF (PAC/AD Class)	
16,500,000	100% of FA (PT Class)	
\$25,931,333		
3		
\$ 7,148,000	100% of BF (PAC/AD Class)	
\$ 7,148,000	100% of BF (PAC/AD Class)	
25,000,000	100% of FH (PT Class)	
\$32,148,000		
\$25,000,000	100% of FH (PT Class)	
	\$ 9,431,333 16,500,000 \$ 9,431,333 16,500,000 \$ 25,931,333 3 \$ 7,148,000 \$ 7,148,000 25,000,000 \$ 32,148,000	Notional Balance       Represents Approximately         2       \$ 9,431,333       100% of AF (PAC/AD Class)         16,500,000       100% of AF (PAC/AD Class)         \$ 9,431,333       100% of AF (PAC/AD Class)         16,500,000       100% of FA (PT Class)         \$ 25,931,333       100% of BF (PAC/AD Class)         \$ 7,148,000       100% of BF (PAC/AD Class)         \$ 7,148,000       100% of FH (PT Class)         \$ 32,148,000       100% of FH (PT Class)

**Component Class:** For purposes of calculating distributions of principal and interest, Class PZ is comprised of multiple components having the designations and characteristics set forth below. Components are not separately transferable from the related Class of Securities.

Class	Components	Principal Type			Principal Balance	
PZ	PZ1	SUP	FIX/Z	5.50%	\$6,889,346	
	PZ2	SUP	FIX/Z	5.50	8,291,162	

**Tax Status:** Single REMIC Series as to the Group 3 Trust Assets (the "Group 3 REMIC"). Double REMIC Series as to the Group 1, 2, 4 through 8 and 10 through 13 Trust Assets and Double REMIC Series as to the Group 9 Trust Assets. Separate REMIC elections will be made as to the Group 3 REMIC, as to the Pooling and the Issuing REMIC with respect to the Group 1, 2, 4 through 8 and 10 through 13 Trust Assets and as to the Pooling and Issuing REMIC with respect to Group 9 Trust Assets (the "Group 1, 2, 4 through 8 and 10 through 13 Pooling REMIC," the "Group 1, 2, 4 through 8 and 10 through 13 Issuing REMIC," the "Group 9 Pooling REMIC" and the "Group 9 Issuing REMIC," respectively). See "Certain United States Federal Income Tax Consequences" in this Supplement and in the Base Offering Circular.

**Regular and Residual Classes:** Classes RR, R3 and RR9 are Residual Classes. Class RR represents the Residual Interest of the Group 1, 2, 4 through 8 and 10 through 13 Issuing REMIC and the Group 1, 2, 4 through 8 and 10 through 13 Pooling REMIC. Class R3 represents the Residual Interest of the Group 3 Trust REMIC. Class RR9 represents the Residual Interest of the Group 9 Issuing REMIC and the Group 9 Pooling REMIC. All other Classes of REMIC Securities are Regular Classes.

#### **RISK FACTORS**

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

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

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

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

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

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

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

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

principal payments are slower than you expected.

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

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

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

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

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

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

The rate of payments on the underlying certificates will directly affect the rate of payments on the group 1, 2, 4, 8 and 11 securities. The underlying certificates will be sensitive in varying degrees to:

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

As described in the related underlying certificate disclosure documents, the underlying certificates

included in trust asset subgroups 8A, 8B, 8D, 8E, 8F and 11A are not entitled to distributions of principal until certain classes of the related underlying series have been retired and, accordingly, distributions of principal of the related mortgage loans for extended periods may be applied to the distribution of principal of such classes of certificates having priority over these underlying certificates. Accordingly, these underlying certificates may receive no principal distributions for extended periods of time.

In addition, the underlying certificates included in trust asset group 2 are classes that provide support to other classes, and they are entitled to receive principal distributions only if scheduled payments have been made on other specified classes of the related underlying series (or if specified classes have been retired). Accordingly, these underlying certificates may receive no principal distributions for extended periods of time or may receive principal payments that vary widely from period to period.

The underlying certificate included in trust asset subgroup 11B has been issued with a class notional balance that is calculated on the basis of the class principal balance of a support class of the related underlying series. Accordingly, the yield on such underlying certificate may be reduced, perhaps significantly, if principal payments on the related support class occur at a rapid rate.

In addition, the principal entitlements of the underlying certificates included in trust asset subgroups 8A, 8B, 8D and 8E on any payment date are calculated on the basis of schedules; no assurance can be given that the underlying certificates will adhere to their schedules. Further, prepayments on the related mortgage loans may have occurred at rates faster or slower than those initially assumed.

The trust assets underlying the underlying certificates included in trust asset group 1 and subgroup 4A are also previously issued certificates that represent beneficial ownership interests in separate trusts. The rate of payments on the previously issued certificates backing these underlying certificates will directly affect the timing and

rate of payments on the group 1 and 4 securities. You should read the related underlying certificate disclosure documents, including the risk factors contained therein, to understand the payments on and related risks of the previously issued certificates backing these underlying certificates.

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

Up to 10% of the mortgage loans underlying the group 1, 6, 7, 9, 10, 11, 12 and 13 trust assets and the subgroup 4C, 8A, 8B, 8D, 8E and 8F trust assets and up to 100% of the mortgage loans underlying the group 2, 3 and 5 trust assets and the subgroup 4A, 4B and 8C trust assets may be bigber balance mortgage loans. Subject to special pooling parameters set forth in the Ginnie Mae Mortgage-Backed Securities Guide, qualifying federallyinsured or guaranteed mortgage loans that exceed certain balance thresholds established by Ginnie Mae ("higher balance mortgage loans") may be included in Ginnie Mae guaranteed pools. There are no historical performance data regarding the prepayment rates for higher balance mortgage loans. If the higher balance mortgage loans prepay faster or slower than expected, the weighted average lives and yields of the related securities are likely to be affected, perhaps significantly. Furthermore, higher balance mortgage loans tend to be concentrated in certain geographic areas, which may experience relatively higher rates of defaults in the event of adverse economic conditions. No assurances can be given about the prepayment experience or performance of the higher balance mortgage loans.

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

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

The securities may not be a suitable investment for you. The securities, especially the group 1, 2, 4, 8 and 11 securities and, in particular, the component, support, interest only, principal only, weighted average coupon, accrual and residual classes, are not suitable investments for all investors.

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

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

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

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

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

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

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

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

#### THE TRUST ASSETS

#### General

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

#### The Trust MBS (Groups 3, 5, 6, 7, 9, 10, 12 and 13)

The Trust MBS are either:

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

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

#### The Underlying Certificates (Groups 1, 2, 4, 8 and 11)

The Group 1, 2, 4, 8 and 11 Trust Assets are Underlying Certificates that represent beneficial ownership interests in one or more separate trusts, the assets of which evidence direct or indirect beneficial ownership interests in certain Ginnie Mae Certificates. Each Underlying Certificate constitutes all or a portion of a class of a separate Series of certificates described in the related Underlying Certificate Disclosure Document. Each Underlying Certificate Disclosure Document may be obtained from the Information Agent as described under "Available Information" in this Supplement. Investors are cautioned that material changes in facts and circumstances may have occurred since the date of each Underlying Certificate Disclosure Document, including changes in prepayment rates, prevailing interest rates and other economic factors, which may limit the usefulness of, and be directly contrary to the assumptions used in preparing the information included in, the offering document. See "Underlying Certificates" in the Base Offering Circular.

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

#### The Mortgage Loans

The Mortgage Loans underlying the Group 3, 5, 6, 7, 9, 10, 12 and 13 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 3, 5, 6, 7, 9, 10, 12 and 13 Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans underlying the

Underlying Certificates are expected to have, on a weighted average basis, the characteristics set forth in Exhibit A to this Supplement. The Mortgage Loans will consist of first lien, single-family, fixed rate, residential mortgage loans that are insured or guaranteed by the Federal Housing Administration, the United States Department of Veterans Affairs, Rural Development (formerly the Rural Housing Service) or the United States Department of Housing and Urban Development ("HUD"). See "The Ginnie Mae Certificates — General" in the Base Offering Circular.

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

#### The Trustee Fee

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

#### **GINNIE MAE GUARANTY**

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

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

#### General

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

#### Form of Securities

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

The Residual Securities will not be issued in book-entry form but will be issued in fully registered, certificated form and may be transferred or exchanged, subject to the transfer restrictions applicable to

Residual Securities set forth in the Trust Agreement, at the Corporate Trust Office of the Trustee. See "Description of the Securities — Forms of Securities; Book-Entry Procedures" in the Base Offering Circular.

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

#### **Distributions**

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

#### **Interest Distributions**

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

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

#### Categories of Classes and Components

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, and Components will be categorized as shown under "Terms Sheet — Component Class" in 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 Period

#### Accrual Periods

Class

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

Fixed Rate and Delay Classes	The calendar month preceding the related Distribution Date
Floating Rate, Inverse Floating	From the 20th day of the month preceding the month of the related
Rate and Weighted Average	Distribution Date through the 19th day of the month of that

Distribution Date

Rate and Weighted Average Coupon Classes other than

Delay Classes

#### Fixed Rate Classes

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

#### Floating Rate and Inverse Floating Rate Classes

The Floating Rate and Inverse Floating Rate Classes will bear interest as shown under "Terms Sheet — Interest Rates" in this Supplement. The Interest Rates for the Floating Rate and Inverse Floating Rate Classes will be based on LIBOR. The Trustee or its agent will determine LIBOR on the basis of the ICE LIBOR method, as described under "Description of the Securities — Interest Rate Indices — Determination of LIBOR — ICE LIBOR" in the Base Offering Circular. In the case of the Group 4, 8 and 11 Securities, the Trustee will use the same values of LIBOR as are used for the related Underlying Certificates (which will be determined on the basis of the ICE LIBOR method).

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

#### Weighted Average Coupon Classes

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

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

#### Accrual Classes

Each of Classes CZ, KZ, NZ, PZ, Z, ZD, ZK and ZN 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 Amounts will be distributed to the Holders entitled thereto as described under "Terms Sheet — Allocation of Principal" in this Supplement. With respect to Security Group 2, the Principal Distribution Amount shall include any Accrual Amounts distributed as principal on the related Underlying Certificates as described in the related Underlying Certificate Disclosure Documents. 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 and Components

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, and Components will be categorized as shown under "Terms Sheet — Component Class" in 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.

#### Component Class

Class PZ is a Component Class and has Components with the designations and characteristics shown under "Terms Sheet — Component Class" in this Supplement. Components will not be separately issued or transferable.

#### Notional Classes

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

#### **Residual Securities**

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Group 1, 2, 4 through 8 and 10 through 13 Issuing REMIC and the beneficial ownership of the Residual Interest in the Group 1, 2, 4 through 8 and 10 through 13 Pooling REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class R3 Securities will represent the beneficial ownership of the Residual Interest in the Group 3 REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class RR9 Securities will represent the beneficial ownership of the Residual Interest in the Group 9 Issuing REMIC and the beneficial ownership of the Residual Interest in the Group 9 Pooling REMIC, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class RR, R3 and RR9 Securities have no Class Principal Balance and do not accrue interest. The Class RR, R3 and RR9 Securities will be entitled to receive the proceeds of the disposition of any assets remaining in the related Trust REMICs after the Class Principal Balance or Class Notional Balance of each Class of Regular Securities in the related Security Group or Groups has been reduced to zero. However, any remaining proceeds are not likely to be significant. The Residual Securities may not be transferred to a Plan Investor, a Non-U.S. Person or a Disqualified Organization.

#### **Class Factors**

The Trustee will calculate and make available for each Class of Securities, no later than the day preceding the Distribution Date, the factor (carried out to eight decimal places) that when multiplied by the Original Class Principal Balance (or original Class Notional Balance) of that Class, determines the Class Principal Balance (or Class Notional Balance) after giving effect to the distribution of principal to be made on the Securities (and any addition to the Class Principal Balance of an Accrual Class) or any reduction of Class Notional Balance on that Distribution Date (each, a "Class Factor").

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

amount of principal to be distributed to (or interest to be added to the Class Principal Balance of) that Class on the Distribution Date in the current month.

• Investors may obtain current Class Factors on Ginnie Mae's website.

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

#### **Termination**

The Trustee, at its option, may purchase or cause the sale of the Trust Assets and thereby terminate the Trust on any Distribution Date on which the aggregate of the Class Principal Balances of the Securities is less than 1% of the aggregate Original Class Principal Balances of the Securities. On any Distribution Date upon the Trustee's determination that the REMIC status of any Trust REMIC has been lost or that a substantial risk exists that this status will be lost for the then current taxable year, the Trustee will terminate 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**

Group 1, 2, 4 through 8 and 10 through 13 Issuing and Pooling REMICs Group 3 REMIC Group 9 Issuing and Pooling REMICs

#### **Related Securities**

Group 1, 2, 4 through 8 and 10 through
13 Securities
Group 3 Securities
Group 9 Securities

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

With respect to each of Security Groups 3 and 9, a Holder of all of the outstanding Regular Securities of any such Security Group and the related Class of Residual Securities shall have the right to purchase the related Trust Assets upon three Business Days' notice (the "Notice Period"). The purchase shall be for cash in an amount equal to (A)(i) the aggregate remaining principal balance of the assets of such Security Group, but in no event less than the aggregate outstanding principal amount of the Securities of such Security Group, plus (ii) accrued interest on the Securities of such Security Group, less (B) amounts on deposit in the related Trust REMICs, 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 REMICs. Upon such termination, the Trustee will distribute the cash proceeds of the sale of the related Trust Assets to the Holder of the related Securities (which distribution may be offset against amounts due on the sale of such assets), will cancel the Securities of the related Security Group and cause the removal from the Book-Entry Depository Account of all Classes of the related Security Group, will cancel the related Class of Residual Securities, and will credit the remaining Trust Assets in the related Security Group to the account of the surrendering Holder. Notwithstanding anything to the contrary contained herein, no such termination will be allowed unless the Trustee and Ginnie Mae are provided, at no cost to either the Trustee or Ginnie Mae, an Opinion of Counsel, acceptable to the Trustee and Ginnie Mae, to the effect that such termination constitutes a "qualified liquidation" under the REMIC

Provisions, including Section 860F(a)(4) of the Code, and such termination will not result in a disqualification of any Trust REMIC that is not terminated at such time or the imposition of any "prohibited transactions" or "contributions" tax under the REMIC Provisions on any Trust REMIC that is not terminated at such time.

#### **Modification and Exchange**

All or a portion of the Classes of REMIC Securities specified on the front cover may be exchanged for a proportionate interest in the related MX Class or Classes shown on Schedule I to this Supplement. Similarly, all or a portion of the related MX Class or Classes may be exchanged for proportionate interests in the related Class or Classes of REMIC Securities and, in the case of Combinations 1, 6 and 15, other related MX Classes. This process may occur repeatedly.

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

In the case of Combinations 1, 6 and 15, the related REMIC Securities may be exchanged for proportionate interests in various subcombinations of MX Classes. Similarly, all or a portion of these MX Classes may be exchanged for proportionate interests in the related REMIC Securities or in other subcombinations of the related MX Classes. Each subcombination may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered. See the example under "Description of the Securities — Modification and Exchange" in the Base Offering Circular.

In the case of Combinations 5 and 9, each of the MX Securities is a Weighted Average Coupon Class that will accrue interest as described under "Terms Sheet — Interest Rates" in this Supplement. In the event that either (1) the Interest Rate of any such MX Class will equal or exceed 1,200% per annum for any Accrual Period or (2) the Class Principal Balance of any such MX Class will be reduced to zero on any Distribution Date, the Trustee will, prior to the close of business on the last Business Day of the calendar month immediately preceding the related Distribution Date in the first case, and prior to the related Distribution Date on which the Class Principal Balance of any such MX Class would be reduced to zero in the second case, effect a mandatory exchange of such MX Class for its related REMIC Securities. Thereafter, no further exchanges of such REMIC Securities will be permitted for the related Combination.

A Beneficial Owner proposing to effect an exchange must notify the Trustee through the Beneficial Owner's Book-Entry Depository participant. This notice must be received by the Trustee not later than two Business Days before the proposed exchange date. The exchange date can be any Business Day other than the last Business Day of the month. The notice must contain the outstanding principal or notional balances of the Securities to be included in the exchange and the proposed exchange date. The notice is required to be delivered to the Trustee by email to USBGNMATeam@USBank.com or in writing at its Corporate Trust Office at U.S. Bank National Association, One Federal Street, 3rd Floor, Boston, MA 02110, Attention: Ginnie Mae REMIC Program Agency Group 2019-140. The Trustee may be contacted by telephone at (617) 603-6451 and by fax at (617) 603-6644.

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

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

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

#### YIELD, MATURITY AND PREPAYMENT CONSIDERATIONS

#### General

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

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

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

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

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

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

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

Investors in the Group 1, 2, 4, 8 and 11 Securities are urged to review the discussion under "Risk Factors — *The rate of payments on the underlying certificates will directly affect the rate of payments on the group* 1, 2, 4, 8 and 11 *securities*" in this Supplement.

#### **Accretion Directed Classes**

Classes AF, BF, CA, CF, CY, DL, DP, KA, KB, KL, ND, NU, PB, PC, PY, YK and YP 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 AS, BS, CS, DI and EI is a Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of the related Accretion Directed Class or Classes shown under "Terms Sheet — Notional Classes" in this Supplement.

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

#### Securities that Receive Principal on the Basis of Schedules

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

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

	Initial Effective Ranges
PAC Classes	
AF, KA and KL (in the aggregate)	196% PSA through 325% PSA
BF, KB and YK (in the aggregate)	308% PSA through 475% PSA
CA, CF and CY (in the aggregate)	273% PSA through 400% PSA
DL and DP (in the aggregate)	150% PSA through 300% PSA
GA and GL (in the aggregate)	225% PSA through 425% PSA
PB and PY (in the aggregate)	250% PSA through 441% PSA
PC and YP (in the aggregate)	250% PSA through 441% PSA
PAC I Classes  NA and NY (in the aggregate)	250% PSA through 350% PSA
PAC II Classes	
ND and NZ (in the aggregate)	290% PSA through 350% PSA

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

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

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

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

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

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

#### **Assumability**

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

#### **Final Distribution Date**

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

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

#### **Modeling Assumptions**

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

- 1. The Mortgage Loans underlying the Group 3, 5, 6, 7, 9, 10, 12 and 13 Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Group 3, 5, 6, 7, 9, 10, 12 and 13 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 3, 5, 6, 7, 9, 10, 12 or 13 Trust Asset is assumed to have an original and a remaining term to maturity of 360 months and a Mortgage Rate of 1.50% per annum higher than the related Certificate Rate.
- 2. The Mortgage Loans prepay at the constant percentages of PSA (described below) shown in the related table.

- 3. Distributions on the Securities are always received on the 20th day of the month whether or not a Business Day, commencing in December 2019.
  - 4. A termination of the Trust, any Trust REMIC or the Underlying Trusts does not occur.
  - 5. The Closing Date for the Securities is November 29, 2019.
- 6. No expenses or fees are paid by the Trust other than the Trustee Fee, which is paid as described under "The Trust Assets The Trustee Fee" in this Supplement.
- 7. Distributions on the Underlying Certificates are made as described in the related Underlying Certificate Disclosure Documents.
- 8. Each Class is held from the Closing Date and is not exchanged in whole or in part, including that there is no mandatory exchange of any MX Class that is a Weighted Average Coupon Class that is subject to mandatory exchange.

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

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

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

#### **Decrement Tables**

Prepayments of mortgage loans are commonly measured by a prepayment standard or model. The models 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

		Cla	asses BA and	BI	
Distribution Date	0%	100%	250%	400%	500%
Initial Percent	100	100	100	100	100
November 2020	97	91	82	73	67
November 2021	93	82	67	52	44
November 2022	90	74	54	37	29
November 2023	86	66	43	26	18
November 2024	82	59	34	18	11
November 2025	78	53	27	12	6
November 2026	74	46	21	7	3
November 2027	69	40	16	4	0
November 2028	64	35	12	2	0
November 2029	59	30	8	0	0
November 2030	54	25	5	0	0
November 2031	48	21	3	0	0
November 2032	42	16	1	0	0
November 2033	36	13	0	0	0
November 2034	30	9	0	0	0
November 2035	23	5	0	0	0
November 2036	16	2	0	0	0
November 2037	9	0	0	0	0
November 2038	1	0	0	0	0
November 2039	0	0	0	0	0
November 2040	0	0	0	0	0
November 2041	0	0	0	0	0
Weighted Average					
Life (years)	11.0	7.2	4.2	2.8	2.3

Security Group 2 PSA Prepayment Assumption Rates

			Class Z		
Distribution Date	0%	100%	250%	400%	500%
Initial Percent	100	100	100	100	100
November 2020	104	104	90	69	55
November 2021	107	107	74	15	0
November 2022	111	111	58	0	0
November 2023	115	115	48	0	0
November 2024	119	119	44	0	0
November 2025	123	123	43	0	0
November 2026	128	128	42	0	0
November 2027	132	132	40	0	0
November 2028	137	137	37	0	0
November 2029	142	142	34	0	0
November 2030	147	147	31	0	0
November 2031	152	152	27	0	0
November 2032	158	155	24	0	0
November 2033	163	152	21	0	0
November 2034	169	148	18	0	0
November 2035	175	144	15	0	0
November 2036	181	136	13	0	0
November 2037	188	123	11	0	0
November 2038	194	110	9	0	0
November 2039	201	98	7	0	0
November 2040	208	86	6	0	0
November 2041	214	75	5	0	0
November 2042	204	64	4	0	0
November 2043	193	55	3 2	0	0
November 2044	175	45	2	0	0
November 2045	142	36	1	0	0
November 2046	108	25	1	0	0
November 2047	72	14	0	0	0
November 2048	29	5	0	0	0
November 2049	0	0	0	0	0
Weighted Average					
Life (years)	26.8	22.0	7.6	1.3	1.0

Security Group 3 PSA Prepayment Assumption Rates

			Class AB		1 /	Cla	asses AC, A	AD, AE, AC	6, AH and	AI
Distribution Date	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2020	100	99	95	91	87	97	92	92	92	91
November 2021	100	93	79	65	51	93	84	83	83	83
November 2022	100	82	56	33	12	90	75	75	74	74
November 2023	100	73	39	11	0	86	67	66	66	54
November 2024	100	66	27	0	0	82	58	57	55	34
November 2025	100	61	19	0	0	78	50	49	39	21
November 2026	100	56	14	0	0	74	41	40	28	13
November 2027	100	54	11	0	0	69	32	32	20	8
November 2028	100	52	11	0	0	64	24	23	14	5
November 2029	100	51	11	0	0	59	15	16	10	3
November 2030	100	51	11	0	0	54	7	10	7	2
November 2031	100	50	11	0	0	49	0	6	5	1
November 2032	100	44	11	0	0	43	0	2	3	1
November 2033	100	38	10	0	0	37	0	0	2	0
November 2034	100	33	8	0	0	31	0	0	2	0
November 2035	100	29	6	0	0	25	0	0	1	0
November 2036	100	25	5	0	0	18	0	0	1	0
November 2037	100	21	4	0	0	11	0	0	1	0
November 2038	100	18	3	0	0	4	0	0	0	0
November 2039	96	15	2	0	0	0	0	0	0	0
November 2040	88	12	2	0	0	0	0	0	0	0
November 2041	80	10	1	0	0	0	0	0	0	0
November 2042	72	8	1	0	0	0	0	0	0	0
November 2043	63	6	1	0	0	0	0	0	0	0
November 2044	53	5	0	0	0	0	0	0	0	0
November 2045	44	4	0	0	0	0	0	0	0	0
November 2046	33	2	0	0	0	0	0	0	0	0
November 2047	23	1	0	0	0	0	0	0	0	0
November 2048	12	1	0	0	0	0	0	0	0	0
November 2049	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	25.2	11.1	4.9	2.5	2.0	11.2	6.0	6.0	5.5	4.4

Security Group 4
PSA Prepayment Assumption Rates

		(	lass AV	V			-	Class IC	)			(	Class M	[			(	class SQ	2	
Distribution Date	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	98	88	69	51	36	98	90	77	63	52	98	95	92	88	85	99	95	91	88	84
November 2021	96	77	44	27	20	96	80	55	41	33	97	87	78	69	60	97	87	77	67	58
November 2022	94	68	26	18	9	94	71	38	28	18	95	78	62	49	38	96	78	62	48	37
November 2023	91	60	18	10	3	92	63	28	18	9	93	69	50	35	24	94	69	50	35	23
November 2024	89	54	12	4	1	90	56	21	11	6	91	62	40	25	15	92	62	40	25	15
November 2025	87	48	7	2	0	88	50	16	7	3	89	55	32	18	9	90	55	32	18	9
November 2026	84	43	4	1	0	85	45	11	5	2	87	49	26	13	6	89	49	26	13	6
November 2027	82	39	1	0	0	83	40	8	3	1	85	43	21	9	4	86	44	21	9	4
November 2028	79	34	1	0	0	80	35	6	2	1	82	38	16	6	2	84	39	17	6	2
November 2029	76	29	0	0	0	78	31	5	1	0	80	34	13	5	1	82	34	13	5	1
November 2030	73	25	Õ	Õ	Ŏ	75	27	3	1	Õ	77	30	10	3	1	80	30	11	3	1
November 2031	71	21	0	0	0	72	23	3	- 1	0	74	26	8	2	1	77	27	8	2	1
November 2032	68	18	Õ	Õ	Õ	69	20	2	1	Õ	72	23	6	2	0	74	24	7	2	0
November 2033	64	17	Ŏ	Õ	Õ	66	18	2	0	Ő	69	20	5	1	Õ	72	21	5	1	Õ
November 2034	61	15	0	Õ	0	63	16	1	Õ	Ő	66	17	4	1	Õ	69	18	4	1	0
November 2035	58	13	Õ	Õ	Õ	60	14	1	Õ	Ő	62	15	3	1	Õ	65	16	3	1	Õ
November 2036	54	12	Ŏ	Õ	Õ	56	12	1	Ŏ	Õ	59	13	2	0	Ŏ	62	13	2	0	Õ
November 2037	51	10	0	Õ	Õ	53	10	1	Õ	Õ	55	11	2	Õ	Õ	59	12	2	0	Õ
November 2038	47	9	0	Õ	Õ	49	9	0	Õ	Õ	52	9	1	Õ	Õ	55	10	1	0	Õ
November 2039	45	ź	Ő	Ő	ő	46	8	Ő	Ő	Ŏ	48	8	1	ő	Ŏ	51	8	1	Ŏ	Ŏ
November 2040	42	6	0	Ő.	Õ	43	6	Ő.	Ő.	Õ	44	7	1	0	Õ	47	7	1	0	0
November 2041	40	5	0	Ő.	Õ	40	5	Ő.	Ő.	Õ	39	5	1	0	Õ	42	6	1	0	0
November 2042	39	4	Ö	Õ	Õ	38	4	Õ	Õ	Ő	35	4	0	Õ	Õ	37	5	0	Õ	Õ
November 2043	34	3	0	Õ	0	33	3	Õ	Õ	Ő	30	3	Ő	0	Õ	33	4	Õ	0	0
November 2044	26	2	Õ	Õ	Õ	26	2	Õ	Õ	Õ	25	3	Õ	Õ	Õ	27	3	Õ	Õ	Õ
November 2045	18	1	Ŏ	ő	ő	19	2	ő	ő	Ŏ	20	2	Ŏ	ő	ŏ	22	2	ŏ	ŏ	ŏ
November 2046	9	1	Õ	Õ	Õ	11	1	Õ	Õ	Õ	15	1	Õ	Õ	Õ	16	1	Õ	0	Õ
November 2047	ó	0	Ő	ő	ő	3	0	ő	ő	ő	9	1	Ő	ő	ŏ	10	1	ő	ő	ő
November 2048	ŏ	ŏ	Ŏ	ŏ	ő	í	ŏ	ő	ő	Ŏ	4	0	Ŏ	ő	ŏ	3	0	ŏ	ŏ	ŏ
November 2049	ő	ő	ő	0	0	0	ő	0	0	ő	0	ő	ő	0	0	ő	0	0	ő	ő
Weighted Average	0	· ·	· ·	0	0		V	0	0	· ·	0	V	V	0	0	· ·	0	0	Ů	0
Life (years)	17.3	7.6	2.3	1.6	1.2	17.6	7.9	3.3	2.3	1.7	18.0	8.6	5.3	3.8	3.0	18.6	8.7	5.3	3.8	2.9

Security Group 5 PSA Prepayment Assumption Rates

			Class DI					Class DF	,				Class ZE	,	
Distribution Date	0%	150%	225%	300%	500%	0%	150%	225%	300%	500%	0%	150%	225%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	100	100	100	100	100	97	94	94	94	94	104	104	97	89	71
November 2021	100	100	100	100	100	95	84	84	84	84	107	107	85	63	6
November 2022	100	100	100	100	100	92	71	71	71	58	111	111	71	33	0
November 2023	100	100	100	100	100	89	59	59	59	39	115	115	61	13	0
November 2024	100	100	100	100	100	86	49	49	49	26	119	119	57	3	0
November 2025	100	100	100	100	100	82	39	39	39	17	123	123	55	0	0
November 2026	100	100	100	100	100	79	31	31	31	11	128	126	55	0	0
November 2027	100	100	100	100	100	75	24	24	24	6	132	124	53	0	0
November 2028	100	100	100	100	100	71	18	18	18	3	137	120	49	0	0
November 2029	100	100	100	100	100	67	14	14	14	2	142	114	45	0	0
November 2030	100	100	100	100	100	63	11	11	11	0	147	107	41	0	0
November 2031	100	100	100	100	72	59	8	8	8	0	152	99	37	0	0
November 2032	100	100	100	100	49	54	6	6	6	0	158	90	33	0	0
November 2033	100	100	100	100	33	49	4	4	4	0	163	82	29	0	0
November 2034	100	100	100	100	22	44	2	2	2	0	169	73	25	0	0
November 2035	100	100	100	100	14	39	1	1	1	0	175	65	21	0	0
November 2036	100	100	100	100	10	34	0	0	0	0	181	58	18	0	0
November 2037	100	90	90	90	6	28	0	0	0	0	188	50	15	0	0
November 2038	100	69	69	69	4	22	0	0	0	0	194	44	13	0	0
November 2039	100	52	52	52	3	16	0	0	0	0	201	37	11	0	0
November 2040	100	39	39	39	2	9	0	0	0	0	208	32	9	0	0
November 2041	100	29	29	29	1	2	0	0	0	0	216	26	7	0	0
November 2042	21	21	21	21	1	0	0	0	0	0	210	22	5	0	0
November 2043	15	15	15	15	0	0	0	0	0	0	184	17	4	0	0
November 2044	10	10	10	10	0	0	0	0	0	0	158	13	3	0	0
November 2045	7	7	7	7	0	0	0	0	0	0	129	10	2	0	0
November 2046	4	4	4	4	0	0	0	0	0	0	100	7	1	0	0
November 2047	2	2	2	2	0	0	0	0	0	0	68	4	1	0	0
November 2048	1	1	1	1	0	0	0	0	0	0	35	2	0	0	0
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	23.1	20.9	20.9	20.9	13.7	13.0	5.7	5.7	5.7	3.9	26.6	17.0	9.5	2.5	1.3

Security Group 6 PSA Prepayment Assumption Rates

		(	Class DI	[			-	Class El				(	Class PA				C	lass PB		
Distribution Date	0%	250%	350%	441%	700%	0%	250%	350%	441%	700%	0%	250%	350%	441%	700%	0%	250%	350%	441%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	98	87	87	87	87	98	87	87	87	87	98	87	87	87	87	98	87	87	87	87
November 2021	95	70	70	70	55	95	70	70	70	55	95	70	70	70	55	95	70	70	70	55
November 2022	92	54	54	54	31	92	54	54	54	31	92	53	53	53	31	92	53	53	53	31
November 2023	90	40	40	40	18	90	40	40	40	18	90	39	39	39	17	90	39	39	39	17
November 2024	87	29	29	29	10	87	29	29	29	10	86	28	28	28	10	86	28	28	28	10
November 2025	83	21	21	21	6	83	21	21	21	6	83	20	20	20	5	83	20	20	20	5
November 2026	80	15	15	15	3	80	15	15	15	3	80	14	14	14	3	80	14	14	14	3
November 2027	76	11	11	11	2	76	11	11	11	2	76	10	10	10	1	76	10	10	10	1
November 2028	72	8	8	8	1	72	8	8	8	1	72	7	7	7	0	72	7	7	7	0
November 2029	68	5	5	5	1	68	5	5	5	1	68	5	5	5	0	68	5	5	5	0
November 2030	64	4	4	4	0	64	4	4	4	0	63	3	3	3	0	63	3	3	3	0
November 2031	59	3	3	3	0	59	3	3	3	0	59	2	2	2	0	59	2	2	2	0
November 2032	54	2	2	2	0	54	2	2	2	0	54	1	1	1	0	54	1	1	1	0
November 2033	49	1	1	1	0	49	1	1	1	0	48	1	1	1	0	48	1	1	1	0
November 2034	43	1	1	1	0	43	1	1	1	0	43	0	0	0	0	43	0	0	0	0
November 2035	37	1	1	1	0	37	1	1	1	0	36	0	0	0	0	36	0	0	0	0
November 2036	30	0	0	0	Õ	30	0	0	0	Ŏ	30	Ŏ	Ŏ	Õ	Ŏ	30	Õ	Ŏ	Ŏ	Õ
November 2037	24	0	0	0	0	24	0	0	0	0	23	0	0	0	0	23	0	0	0	0
November 2038	16	0	0	0	0	16	0	0	0	0	16	0	0	0	0	16	0	0	0	0
November 2039	8	Õ	Õ	Ő	Õ	8	Ő	Ŏ	Õ	Õ	8	Õ	Õ	Õ	Õ	8	Ő	Õ	Ŏ	Õ
November 2040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November 2041	0	0	0	Õ	Õ	Õ	Õ	0	0	0	0	Õ	Ő	0	0	0	Õ	Ő	0	Õ
November 2042	ő	Ŏ	Ŏ	ŏ	ő	Ŏ	ŏ	ŏ	ő	ŏ	ő	ŏ	Ŏ	ő	ŏ	ŏ	ŏ	Ŏ	ŏ	ŏ
November 2043	0	0	0	Õ	Õ	Õ	Õ	0	0	0	0	Õ	Ő	0	0	0	Õ	Ő	0	Õ
November 2044	Õ	Õ	Õ	Õ	Õ	Õ	Õ	0	Õ	Õ	Õ	Õ	Õ	0	Õ	Õ	Õ	Õ	Õ	Ŏ
November 2045	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ő	ŏ	ŏ	ŏ	ŏ	ő	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ
November 2046	ő	ő	ŏ	Ő	ő	ő	ő	ő	ő	ő	ő	ŏ	ŏ	ő	ő	ő	Ő	Ő	ŏ	ő
November 2047	ő	ő	ő	Ő	Ő	ő	ő	ő	ő	ő	ő	ŏ	Ŏ	ő	ő	Ő	Ő	Ő	ő	ŏ
November 2048	ő	ő	ő	ő	ő	ő	ŏ	ő	ő	ő	0	ő	ŏ	ő	ő	ő	ő	ő	ő	ő
November 2049	0	ő	0	ő	0	ő	ő	ő	0	ő	0	ő	ő	0	ő	o o	ő	ő	Ő	0
Weighted Average	0	U	U	U	U	U	0	U	U	U	U	U	U	U	Ü	U	U	U	U	· ·
Life (years)	12.8	4.0	4.0	4.0	2.7	12.8	4.0	4.0	4.0	2.7	12.7	3.9	3.9	3.9	2.6	12.7	3.9	3.9	3.9	2.6

Security Group 6 PSA Prepayment Assumption Rates

		(	Class PC	3			(	Class PY	7			(	lass PZ	<u> </u>			(	Class YI	,	
Distribution Date	0%	250%	350%	441%	700%	0%	250%	350%	441%	700%	0%	250%	350%	441%	700%	0%	250%	350%	441%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	98	87	87	87	87	100	100	100	100	100	106	106	86	68	18	100	100	100	100	100
November 2021	95	70	70	70	55	100	100	100	100	100	112	112	67	28	0	100	100	100	100	100
November 2022	92	53	53	53	31	100	100	100	100	100	118	118	56	5	0	100	100	100	100	100
November 2023	90	39	39	39	17	100	100	100	100	100	125	125	54	0	0	100	100	100	100	100
November 2024	86	28	28	28	10	100	100	100	100	100	132	126	52	0	0	100	100	100	100	100
November 2025	83	20	20	20	5	100	100	100	100	100	139	121	48	0	0	100	100	100	100	100
November 2026	80	14	14	14	3	100	100	100	100	100	147	112	43	0	0	100	100	100	100	100
November 2027	76	10	10	10	1	100	100	100	100	100	155	101	37	0	0	100	100	100	100	100
November 2028	72	7	7	7	0	100	100	100	100	100	164	90	31	0	0	100	100	100	100	100
November 2029	68	5	5	5	0	100	100	100	100	81	173	79	26	0	0	100	100	100	100	81
November 2030	63	3	3	3	0	100	100	100	100	46	183	68	21	0	0	100	100	100	100	46
November 2031	59	2	2	2	0	100	100	100	100	26	193	58	17	0	0	100	100	100	100	26
November 2032	54	1	1	1	0	100	100	100	100	14	204	49	14	0	0	100	100	100	100	14
November 2033	48	1	1	1	0	100	100	100	100	8	216	41	11	0	0	100	100	100	100	8
November 2034	43	0	0	0	0	100	100	100	100	4	228	34	9	0	0	100	100	100	100	4
November 2035	36	0	0	0	0	100	94	94	94	2	241	28	7	0	0	100	94	94	94	2
November 2036	30	0	0	0	0	100	66	66	66	1	254	23	5	0	0	100	66	66	66	1
November 2037	23	0	0	0	0	100	45	45	45	1	269	19	4	0	0	100	45	45	45	1
November 2038	16	0	0	0	0	100	31	31	31	0	284	15	3	0	0	100	31	31	31	0
November 2039	8	0	0	0	0	100	21	21	21	0	300	12	2	0	0	100	21	21	21	0
November 2040	0	0	0	0	0	14	14	14	14	0	316	9	2	0	0	14	14	14	14	0
November 2041	0	0	0	0	0	9	9	9	9	0	290	7	1	0	0	9	9	9	9	0
November 2042	0	0	0	0	0	6	6	6	6	0	262	6	1	0	0	6	6	6	6	0
November 2043	0	0	0	0	0	4	4	4	4	0	232	4	1	0	0	4	4	4	4	0
November 2044	0	0	0	0	0	2	2	2	2	0	200	3	0	0	0	2	2	2	2	0
November 2045	0	0	0	0	0	1	1	1	1	0	165	2	0	0	0	1	1	1	1	0
November 2046	0	0	0	0	0	1	1	1	1	0	128	1	0	0	0	1	1	1	1	0
November 2047	0	0	0	0	0	0	0	0	0	0	88	1	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	12.7	3.9	3.9	3.9	2.6	21.3	18.5	18.5	18.5	11.4	26.0	12.5	6.5	1.5	0.7	21.3	18.5	18.5	18.5	11.4

Security Group 7 PSA Prepayment Assumption Rates

		Classes	FG, GM	and SO	÷		(	lass GA	1			(	Class Gl	Ĺ			(	Class G	ľ	
Distribution Date	0%	225%	325%	425%	700%	0%	225%	325%	425%	700%	0%	225%	325%	425%	700%	0%	225%	325%	425%	700%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	99	94	92	90	84	99	92	92	92	92	100	100	100	100	100	100	100	91	82	57
November 2021	98	83	77	71	57	97	78	78	78	73	100	100	100	100	100	100	100	74	49	0
November 2022	96	71	61	52	32	95	62	62	62	41	100	100	100	100	100	100	100	58	20	0
November 2023	95	60	48	38	18	94	48	48	48	23	100	100	100	100	100	100	100	49	6	0
November 2024	94	51	38	28	10	92	36	36	36	13	100	100	100	100	100	100	100	44	0	0
November 2025	92	43	30	20	6	90	26	26	26	7	100	100	100	100	100	100	99	42	0	0
November 2026	90	37	24	15	3	87	19	19	19	3	100	100	100	100	100	100	94	38	0	0
November 2027	89	31	19	11	2	85	13	13	13	1	100	100	100	100	100	100	87	34	0	0
November 2028	87	26	15	8	1	83	9	9	9	0	100	100	100	100	100	100	79	29	0	0
November 2029	85	22	11	6	1	80	6	6	6	0	100	100	100	100	73	100	70	25	0	0
November 2030	83	18	9	4	0	77	4	4	4	0	100	100	100	100	41	100	62	21	0	0
November 2031	80	15	7	3	0	74	3	3	3	0	100	100	100	100	23	100	54	17	0	0
November 2032	78	13	5	2	0	71	2	2	2	0	100	100	100	100	13	100	47	14	0	0
November 2033	75	11	4	2	0	68	1	1	1	0	100	100	100	100	7	100	40	12	0	0
November 2034	73	9	3	1	0	64	0	0	0	0	100	100	100	100	4	100	34	9	0	0
November 2035	70	7	2	1	0	60	0	0	0	0	100	93	93	93	2	100	28	7	0	0
November 2036	66	6	2	1	0	56	0	0	0	0	100	66	66	66	1	100	24	6	0	0
November 2037	63	5	1	0	0	51	0	0	0	0	100	46	46	46	1	100	20	5	0	0
November 2038	59	4	1	0	0	47	0	0	0	0	100	32	32	32	0	100	16	4	0	0
November 2039	56	3	1	0	0	42	0	0	0	0	100	22	22	22	0	100	13	3	0	0
November 2040	52	3	1	0	0	36	0	0	0	0	100	15	15	15	0	100	10	2	0	0
November 2041	47	2	0	0	0	31	0	0	0	0	100	10	10	10	0	100	8	2	0	0
November 2042	43	2	0	0	0	25	0	0	0	0	100	7	7	7	0	100	6	1	0	0
November 2043	38	1	0	0	0	18	0	0	0	0	100	4	4	4	0	100	5	1	0	0
November 2044	32	1	0	0	0	11	0	0	0	0	100	3	3	3	0	100	4	1	0	0
November 2045	27	1	0	0	0	4	0	0	0	0	100	2	2	2	0	100	3	0	0	0
November 2046	21	0	0	0	0	0	0	0	0	0	1	1	1	1	0	89	2	0	0	0
November 2047	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	1	0	0	0
November 2048	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																	_			
Life (years)	19.6	6.7	5.1	4.1	2.7	16.9	4.5	4.5	4.5	3.1	26.6	18.5	18.5	18.5	11.2	28.4	13.6	6.4	2.1	1.1

Security Group 8 PSA Prepayment Assumption Rates

		Class	es IB ar	nd OB			Class	es IL aı	nd OL			Classe	es IP an	d OP			Class	es LI an	d LO	
Distribution Date	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2021	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2022	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2023	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2024	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2025	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2026	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2027	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2028	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2029	100	100	100	100	100	100	100	100	100	84	100	100	100	100	100	100	100	100	100	100
November 2030	100	100	100	100	100	100	100	100	100	52	100	100	100	100	100	100	100	100	100	65
November 2031	100	100	100	100	66	100	100	100	100	32	100	100	100	100	63	100	100	100	100	40
November 2032	100	100	100	100	41	100	100	100	94	20	100	100	100	100	39	100	100	100	100	25
November 2033	100	100	100	100	25	100	100	100	66	12	100	100	100	100	24	100	100	100	84	15
November 2034	100	100	100	95	15	100	100	100	46	7	100	100	100	89	15	100	100	100	58	9
November 2035	100	100	100	65	9	100	100	100	32	4	100	100	100	62	9	100	100	100	40	6
November 2036	100	100	100	45	6	100	100	100	22	3	100	100	100	43	5	100	100	100	28	3
November 2037	100	100	100	31	3	100	100	100	15	2	100	100	100	29	3	100	100	100	19	2
November 2038	100	100	100	21	2	100	100	82	10	1	100	100	100	20	2	100	100	100	13	1
November 2039	100	100	100	14	1	100	100	62	7	1	100	100	100	13	1	100	79	79	9	1
November 2040	100	100	96	9	1	100	100	47	5	0	100	100	89	9	1	100	59	59	6	0
November 2041	100	100	71	6	0	100	100	34	3	0	100	100	66	6	0	44	44	44	4	0
November 2042	100	100	51	4	0	100	100	25	2	0	100	100	48	4	0	32	32	32	2	0
November 2043	100	100	36	3	0	100	100	18	1	0	100	100	34	2	0	22	22	22	2	0
November 2044	100	90	25	2	0	100	100	12	1	0	84	84	23	1	0	15	15	15	1	0
November 2045	100	62	16	1	0	100	100	8	0	0	58	58	15	1	0	10	10	10	1	0
November 2046	39	39	10	0	0	100	74	5	0	0	37	37	9	0	0	6	6	6	0	0
November 2047	21	21	5	0	0	100	43	3	0	0	20	20	5	0	0	3	3	3	0	0
November 2048	7	7	1	0	0	100	17	1	0	0	6	6	1	0	0	1	1	1	0	0
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	27.0	26.7	23.6	17.5	13.2	29.6	27.8	21.5	15.6	11.7	26.6	26.6	23.4	17.3	13.1	22.9	22.2	22.2	16.2	12.2

PSA Prepayment Assumption Rates
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	1 0.1 1 repayment assumption taxes																
		Class	ses PI an	d PO				Class SB			Class WA						
Distribution Date	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%	0%	150%	300%	450%	600%		
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
November 2020	100	100	100	100	100	98	95	92	88	85	100	100	100	100	100		
November 2021	100	100	100	100	100	97	87	77	68	60	100	100	100	100	100		
November 2022	100	100	100	100	100	95	77	62	49	38	100	100	100	100	100		
November 2023	100	100	100	100	100	93	69	50	35	24	100	100	100	100	100		
November 2024	100	100	100	100	100	91	62	40	25	15	100	100	100	100	100		
November 2025	100	100	100	100	100	89	55	32	18	9	100	100	100	100	100		
November 2026	100	100	100	100	100	87	49	26	13	6	100	100	100	100	100		
November 2027	100	100	100	100	100	84	43	21	9	4	100	100	100	100	100		
November 2028	100	100	100	100	100	82	38	16	6	2	100	100	100	100	100		
November 2029	100	100	100	100	80	80	34	13	5	1	100	100	100	100	89		
November 2030	100	100	100	100	49	77	30	10	3	1	100	100	100	100	66		
November 2031	100	100	100	100	30	74	26	8	2	1	100	100	100	100	42		
November 2032	100	100	100	100	18	71	23	6	2	0	100	100	100	99	26		
November 2033	100	100	100	70	11	68	20	5	1	0	100	100	100	80	16		
November 2034	100	100	100	48	7	65	17	4	1	0	100	100	100	62	10		
November 2035	100	100	100	33	4	62	15	3	1	0	100	100	100	43	6		
November 2036	100	100	100	23	2	59	13	2	0	0	100	100	100	29	3		
November 2037	100	100	100	15	1	55	11	2	0	0	100	100	100	20	2		
November 2038	100	100	92	10	1	51	9	1	0	0	100	100	94	13	1		
November 2039	100	100	68	7	0	48	8	1	0	0	100	98	78	9	1		
November 2040	100	73	49	4	0	43	7	1	0	0	100	82	63	6	0		
November 2041	100	53	34	3	0	39	5	1	0	0	94	70	46	4	0		
November 2042	100	37	23	2	0	35	4	0	0	0	93	61	32	2	0		
November 2043	100	24	15	1	0	30	3	0	0	0	92	54	22	1	0		
November 2044	84	14	9	0	0	25	3	0	0	0	80	44	14	1	0		
November 2045	7	7	4	0	0	20	2	0	0	0	37	32	9	0	0		
November 2046	1	1	1	0	0	15	1	0	0	0	22	20	4	0	0		
November 2047	0	0	0	0	0	9	1	0	0	0	16	11	2	0	0		
November 2048	0	0	0	0	0	3	0	0	0	0	12	4	1	0	0		
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average																	
Life (years)	25.2	22.6	21.5	15.7	11.6	18.0	8.6	5.3	3.8	3.0	25.9	24.3	22.2	16.2	12.1		

Security Group 9 PSA Prepayment Assumption Rates

	Classes CA, CB, CD, CE, CG, CH, CM, CN and IC						Classes CF and CS					Class CY						Class CZ				
Distribution Date	0%	273%	325%	400%	700%	0%	273%	325%	400%	700%	0%	273%	325%	400%	700%	0%	273%	325%	400%	700%		
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
November 2020	98	89	89	89	89	98	89	89	89	89	100	100	100	100	100	105	105	93	75	5		
November 2021	96	73	73	73	57	96	73	73	73	57	100	100	100	100	100	109	109	79	36	Ó		
November 2022	94	56	56	56	32	94	57	57	57	32	100	100	100	100	100	114	114	70	9	Õ		
November 2023	91	43	43	43	18	91	43	43	43	18	100	100	100	100	100	120	120	68	Ó	Õ		
November 2024	89	32	32	32	10	89	32	32	32	10	100	100	100	100	100	125	123	68	Ŏ	Ŏ		
November 2025	86	23	23	23	5	86	24	24	24	6	100	100	100	100	100	131	119	64	0	0		
November 2026	83	17	17	17	3	83	18	18	18	3	100	100	100	100	100	137	111	59	0	0		
November 2027	80	13	13	13	1	81	13	13	13	2	100	100	100	100	100	143	100	52	0	0		
November 2028	77	9	9	9	0	77	10	10	10	1	100	100	100	100	100	150	89	45	0	0		
November 2029	74	7	7	7	0	74	7	7	7	1	100	100	100	100	93	157	78	38	0	0		
November 2030	71	5	5	5	0	71	5	5	5	0	100	100	100	100	52	164	67	32	0	0		
November 2031	67	3	3	3	0	67	4	4	4	0	100	100	100	100	29	171	57	27	0	0		
November 2032	63	2	2	2	0	63	3	3	3	0	100	100	100	100	16	179	48	22	0	0		
November 2033	59	1	1	1	0	59	2	2	2	0	100	100	100	100	9	188	40	18	0	0		
November 2034	54	1	1	1	0	55	2	2	2	0	100	100	100	100	5	196	33	15	0	0		
November 2035	50	0	0	0	0	50	1	1	1	0	100	100	100	100	3	205	27	12	0	0		
November 2036	45	0	0	0	0	45	1	1	1	0	100	100	100	100	2	215	22	9	0	0		
November 2037	40	0	0	0	0	40	1	1	1	0	100	85	85	85	1	224	18	7	0	0		
November 2038	34	0	0	0	0	35	0	0	0	0	100	60	60	60	0	235	14	6	0	0		
November 2039	29	0	0	0	0	29	0	0	0	0	100	42	42	42	0	246	11	4	0	0		
November 2040	22	0	0	0	0	23	0	0	0	0	100	29	29	29	0	257	9	3	0	0		
November 2041	16	0	0	0	0	17	0	0	0	0	100	20	20	20	0	269	7	2	0	0		
November 2042	9	0	0	0	0	10	0	0	0	0	100	13	13	13	0	281	5	2	0	0		
November 2043	2	0	0	0	0	3	0	0	0	0	100	9	9	9	0	294	4	1	0	0		
November 2044	0	0	0	0	0	0	0	0	0	0	6	6	6	6	0	269	3	1	0	0		
November 2045	0	0	0	0	0	0	0	0	0	0	3	3	3	3	0	221	2	1	0	0		
November 2046	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	171	1	0	0	0		
November 2047	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	117	0	0	0	0		
November 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0		
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average																						
Life (years)	14.8	4.3	4.3	4.3	2.7	14.9	4.4	4.4	4.4	2.7	24.4	20.2	20.2	20.2	11.6	27.3	12.6	8.5	1.7	0.6		

Security Group 10 PSA Prepayment Assumption Rates

	Class FM						Classes FN and SN					(		Class NB						
Distribution Date	0%	250%	320%	350%	700%	0%	250%	320%	350%	700%	0%	250%	320%	350%	700%	0%	250%	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
November 2020	99	94	92	92	85	99	93	91	90	82	98	92	92	92	92	99	93	93	93	93
November 2021	97	82	78	76	58	97	80	76	74	54	97	77	77	77	62	97	79	79	79	65
November 2022	96	68	62	59	33	96	67	60	58	31	95	60	60	60	31	95	64	64	64	37
November 2023	95	57	49	46	19	94	56	48	45	18	93	46	46	46	13	94	51	51	51	21
November 2024	93	48	39	36	11	92	46	38	34	10	91	34	34	34	3	92	40	40	40	12
November 2025	91	40	31	27	6	91	39	30	27	6	89	24	24	24	0	90	31	31	31	7
November 2026	89	33	24	21	3	89	32	24	20	3	87	16	16	16	0	88	24	24	24	4
November 2027	88	27	19	16	2	87	27	19	16	2	84	10	10	10	0	86	18	18	18	2
November 2028	86	22	15	13	1	85	22	15	12	1	82	6	6	6	0	83	14	14	14	1
November 2029	83	19	12	10	1	83	18	11	9	1	79	2	2	2	0	81	11	11	11	1
November 2030	81	15	9	7	0	80	15	9	Ź	0	76	0	0	0	Ö	78	8	8	8	0
November 2031	79	13	7	6	0	78	12	Ź	5	0	73	0	0	0	0	76	6	6	6	0
November 2032	76	10	6	4	0	75	10	5	4	0	70	0	0	0	0	73	5	5	5	0
November 2033	74	8	4	3	Ö	72	8	4	3	Ő	67	Ő	Ö	Õ	Ö	70	4	$\stackrel{\sim}{4}$	4	Ŏ
November 2034	71	7	3	2	0	69	7	3	2	0	63	0	0	0	0	67	3	3	3	0
November 2035	68	6	3	2	0	66	5	2	2	Ő	59	Õ	0	0	0	63	2	2	2	0
November 2036	65	4	2	1	Ŏ	63	4	2	1	Õ	55	Õ	Ö	Õ	Ö	59	2	2	2	Ŏ
November 2037	61	4	2	1	0	60	3	1	1	0	51	0	0	0	0	56	1	1	1	0
November 2038	57	3	1	1	0	56	3	1	1	0	47	0	0	0	0	51	1	1	1	0
November 2039	54	2	1	1	Ö	52	2	1	1	Ő	42	Ő	Ö	Õ	Ö	47	1	1	1	Ŏ
November 2040	50	2	1	0	0	48	2	1	0	0	37	0	0	0	0	42	0	0	0	0
November 2041	45	1	0	0	0	44	1	0	0	0	31	0	0	0	0	38	0	0	0	0
November 2042	41	1	0	0	0	40	1	0	0	0	26	0	0	0	0	32	0	0	0	0
November 2043	36	1	0	0	0	35	1	0	0	0	20	0	0	0	0	27	0	0	0	0
November 2044	31	1	0	0	0	30	1	0	0	0	13	0	0	0	0	21	0	0	0	0
November 2045	25	0	0	0	0	24	0	0	0	0	6	0	0	0	0	15	0	0	0	0
November 2046	20	0	0	0	0	19	0	0	0	0	0	0	0	0	0	8	0	0	0	0
November 2047	13	0	0	0	0	13	0	0	0	0	0	0	0	0	0	Ĭ.	0	Õ	0	0
November 2048	7	Õ	Õ	Õ	Õ	7	Ŏ	Ŏ	Õ	Ŏ	Õ	Ŏ	Ŏ	Õ	Õ	0	Õ	Õ	Ŏ	Õ
November 2049	Ó	0	Õ	0	Ö	0	0	0	0	Õ	0	0	0	Õ	0	0	0	Õ	0	0
Weighted Average	-													-						
Life (years)	19.2	6.2	5.1	4.8	2.7	19.0	6.1	5.0	4.7	2.6	16.8	4.2	4.2	4.2	2.5	17.8	5.1	5.1	5.1	3.0

Security Group 10 PSA Prepayment Assumption Rates

			Class ND	)			Class	ses NF ar	nd NS		Class NU					
Distribution Date	0%	250%	320%	350%	700%	0%	250%	320%	350%	700%	0%	250%	320%	350%	700%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
November 2020	100	100	85	85	59	99	94	92	92	85	100	100	91	83	0	
November 2021	100	100	56	56	0	97	82	78	77	58	100	100	75	50	0	
November 2022	100	100	27	27	0	96	69	62	60	34	100	100	60	21	0	
November 2023	100	100	10	10	0	95	57	49	46	19	100	100	52	6	0	
November 2024	100	100	2	2	0	93	48	39	36	11	100	100	48	0	0	
November 2025	100	99	0	0	0	91	40	31	28	6	100	100	47	0	0	
November 2026	100	90	0	0	0	90	33	24	21	3	100	100	44	0	0	
November 2027	100	76	0	0	0	88	27	19	16	2	100	100	40	0	0	
November 2028	100	58	0	0	0	86	23	15	13	1	100	100	36	0	0	
November 2029	100	39	0	0	0	84	19	12	10	1	100	100	31	0	0	
November 2030	100	19	0	0	0	81	15	9	7	0	100	100	27	0	0	
November 2031	100	0	0	0	0	79	13	7	6	0	100	100	23	0	0	
November 2032	100	0	0	0	0	77	10	6	4	0	100	87	19	0	0	
November 2033	100	0	0	0	0	74	8	4	3	0	100	74	16	0	0	
November 2034	100	0	0	0	0	71	7	3	2	0	100	63	13	0	0	
November 2035	100	0	0	0	0	68	6	3	2	0	100	53	11	0	0	
November 2036	100	0	0	0	0	65	4	2	1	0	100	44	9	0	0	
November 2037	100	0	0	0	0	61	4	2	1	0	100	36	7	0	0	
November 2038	100	0	0	0	0	58	3	1	1	0	100	30	5	0	0	
November 2039	100	0	0	0	0	54	2	1	1	0	100	24	4	0	0	
November 2040	100	0	0	0	0	50	2	1	0	0	100	19	3	0	0	
November 2041	100	0	0	0	0	46	1	0	0	0	100	15	2	0	0	
November 2042	100	0	0	0	0	41	1	0	0	0	100	12	2	0	0	
November 2043	100	0	0	0	0	36	1	0	0	0	100	9	1	0	0	
November 2044	100	0	0	0	0	31	1	0	0	0	100	6	1	0	0	
November 2045	100	0	0	0	0	26	0	0	0	0	100	4	1	0	0	
November 2046	100	0	0	0	0	20	0	0	0	0	100	3	0	0	0	
November 2047	100	0	0	0	0	14	0	0	0	0	100	1	0	0	0	
November 2048	0	0	0	0	0	7	0	0	0	0	100	0	0	0	0	
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average Life (years)	28.6	9.4	2.3	2.3	1.0	19.3	6.2	5.1	4.8	2.7	29.5	17.3	7.2	2.1	0.5	
ine (jears)	_5.0	7.1	5	5	1.0	17.5	5.2	7.1	1.0	/	27.7	17.0	7.2	1	0.7	

PSA	Prepayment	Assumption	Rates
- 011	- repulyment	- LOOULING TO LO	******

		,	Class NY					Class NZ			Class ZN					
Distribution Date	0%	250%	320%	350%	700%	0%	250%	320%	350%	700%	0%	250%	320%	350%	700%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
November 2020	100	100	100	100	100	103	103	103	103	103	103	103	103	103	0	
November 2021	100	100	100	100	100	105	105	105	105	0	105	105	105	105	0	
November 2022	100	100	100	100	100	108	108	108	108	0	108	108	108	108	0	
November 2023	100	100	100	100	100	111	111	111	111	0	111	111	111	111	0	
November 2024	100	100	100	100	100	113	113	113	113	0	113	113	113	113	0	
November 2025	100	100	100	100	74	116	116	77	77	0	116	116	116	19	0	
November 2026	100	100	100	100	42	119	119	77	77	0	119	119	119	19	0	
November 2027	100	100	100	100	24	122	122	77	77	0	122	122	122	19	0	
November 2028	100	100	100	100	13	125	125	77	77	0	125	125	125	19	0	
November 2029	100	100	100	100	8	128	128	77	77	0	128	128	128	19	0	
November 2030	100	91	91	91	4	132	132	77	77	0	132	132	132	19	0	
November 2031	100	69	69	69	2	135	135	77	77	0	135	135	135	19	0	
November 2032	100	53	53	53	1	138	77	77	77	0	138	138	138	19	0	
November 2033	100	40	40	40	1	142	77	77	77	0	142	142	142	19	0	
November 2034	100	30	30	30	0	145	77	77	77	0	145	145	145	19	0	
November 2035	100	23	23	23	0	149	77	77	77	0	149	149	149	19	0	
November 2036	100	17	17	17	0	153	77	77	77	0	153	153	153	19	0	
November 2037	100	13	13	13	0	157	77	77	77	0	157	157	157	19	0	
November 2038	100	9	9	9	0	161	77	77	77	0	161	161	161	19	0	
November 2039	100	7	7	7	0	165	77	77	77	0	165	165	165	19	0	
November 2040	100	5	5	5	0	169	77	77	77	0	169	169	169	19	0	
November 2041	100	3	3	3	0	173	77	77	77	0	173	173	173	19	0	
November 2042	100	2	2	2	0	178	77	77	77	0	178	178	178	19	0	
November 2043	100	2	2	2	0	182	77	77	77	0	182	182	182	19	0	
November 2044	100	1	1	1	0	187	77	77	77	0	187	187	187	19	0	
November 2045	100	1	1	1	0	191	77	77	77	0	191	191	191	19	0	
November 2046	91	0	0	0	0	196	77	77	77	0	196	196	196	19	0	
November 2047	15	0	0	0	0	201	77	77	77	0	201	201	201	19	0	
November 2048	0	0	0	0	0	77	77	77	77	0	206	206	190	19	0	
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average																
Life (years)	27.6	14.2	14.2	14.2	7.3	29.2	22.0	21.6	21.6	1.2	30.0	29.6	29.3	9.4	0.9	

Security Group 11 PSA Prepayment Assumption Rates

		Class	es QO and	d QW				Class QS		
Distribution Date	0%	100%	200%	300%	400%	0%	100%	200%	300%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
November 2020	100	100	100	100	100	100	100	100	93	83
November 2021	100	100	100	100	100	100	100	100	82	56
November 2022	100	100	100	100	100	100	100	100	72	35
November 2023	100	100	100	100	100	100	100	100	66	24
November 2024	100	100	100	100	90	100	100	100	64	21
November 2025	100	100	100	99	67	100	100	100	60	19
November 2026	100	100	100	79	50	100	100	100	54	16
November 2027	100	100	100	63	37	100	100	100	48	14
November 2028	100	100	89	50	27	100	100	93	42	11
November 2029	100	100	76	40	20	100	100	83	35	9
November 2030	100	100	65	32	15	100	100	74	30	7
November 2031	100	100	55	25	11	100	100	64	25	6
November 2032	100	100	46	20	8	100	100	56	20	5
November 2033	100	93	39	15	6	100	100	48	17	4
November 2034	100	83	33	12	4	100	100	41	13	3
November 2035	100	74	27	9	3	100	99	35	11	2
November 2036	100	66	23	Ź	2	100	89	30	9	2
November 2037	100	58	19	6	2	100	79	25	7	1
November 2038	100	51	15	4	1	100	70	21	5	1
November 2039	100	44	12	3	1	100	61	17	4	1
November 2040	100	37	10	2	1	100	53	14	3	0
November 2041	100	32	8	2	0	100	45	11	2	0
November 2042	100	26	6	1	0	100	37	9	2	0
November 2043	88	21	5	1	0	100	30	Ź	1	0
November 2044	72	16	3	1	0	100	24	5	1	0
November 2045	56	12	2	0	0	85	18	3	1	0
November 2046	39	8	1	0	0	61	12	2	0	0
November 2047	22	4	1	0	0	36	7	1	0	0
November 2048	5	1	0	ŏ	Ö	10	2	0	Ŏ	Ö
November 2049	Ó	0	Õ	Õ	Ö	0	0	0	0	0
Weighted Average										
Life (years)	26.3	19.8	13.9	10.2	8.0	27.4	21.8	14.9	8.2	3.7

Security Group 12 PSA Prepayment Assumption Rates

		Class	ses AF ar	nd AS			Class	ses FA ar	nd SA			Class	ses FE ar	nd SE	
Distribution Date	0%	196%	250%	325%	500%	0%	196%	250%	325%	500%	0%	196%	250%	325%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	98	94	94	94	94	99	95	94	93	90	98	95	94	93	91
November 2021	96	83	83	83	82	97	86	83	79	70	97	85	83	81	75
November 2022	94	69	69	69	57	96	75	70	63	49	95	73	69	65	52
November 2023	91	57	57	57	39	95	65	58	50	34	93	62	58	52	36
November 2024	89	46	46	46	27	93	56	49	39	23	91	52	47	42	24
November 2025	86	36	36	36	18	91	48	40	31	16	89	44	39	33	17
November 2026	83	28	28	28	13	90	42	34	24	11	87	37	32	26	11
November 2027	80	22	22	22	9	88	36	28	19	7	85	31	26	20	8
November 2028	77	18	18	18	6	86	31	23	15	5	83	26	21	16	5
November 2029	74	14	14	14	4	84	27	19	12	3	80	22	17	12	4
November 2030	71	11	11	11	3	81	23	16	9	2	77	18	14	10	2
November 2031	67	8	8	8	2	79	19	13	Ź	2	75	15	11	8	2
November 2032	63	6	6	6	1	77	16	11	6	1	72	13	9	6	1
November 2033	59	5	5	5	1	74	14	9	4	1	68	11	7	5	1
November 2034	55	4	4	4	1	71	12	7	3	0	65	9	6	4	1
November 2035	50	3	3	3	0	68	10	6	3	0	62	7	5	3	0
November 2036	45	2	2	2	Ö	65	8	5	2	Ŏ	58	6	$\stackrel{\sim}{4}$	2	Õ
November 2037	40	2	2	2	0	61	7	4	1	0	54	5	3	2	0
November 2038	35	1	1	1	Õ	58	6	3	1	0	50	4	2	1	Õ
November 2039	30	1	1	1	Ö	54	5	2	1	Ŏ	45	3	2	1	Õ
November 2040	24	1	1	1	0	50	4	2	1	0	40	3	1	1	0
November 2041	17	1	1	1	Õ	46	3	1	0	0	35	2	1	0	Õ
November 2042	11	0	0	0	Õ	41	2	1	Õ	Ŏ	30	2	1	Ŏ	Õ
November 2043	4	0	0	0	0	36	2	1	0	0	24	1	1	0	0
November 2044	0	0	0	0	0	31	1	1	0	0	20	1	0	0	0
November 2045	Ŏ	Ŏ	Ŏ	Ŏ	Õ	26	1	0	Õ	Ŏ	16	1	Ŏ	Õ	Ŏ
November 2046	0	0	0	0	0	20	1	0	0	0	13	0	0	0	0
November 2047	Õ	0	0	0	Õ	14	0	Õ	Õ	0	9	Õ	0	0	Õ
November 2048	Õ	Ő	Õ	Ő	Ŏ	7	Õ	Õ	Õ	Õ	4	Õ	Õ	Õ	Õ
November 2049	ŏ	ő	ő	ő	ŏ	0	ő	ő	ő	Ő	0	ő	ő	Õ	Õ
Weighted Average	~				~	•	~	~	~			~			•
Life (years)	14.9	5.6	5.6	5.6	4.1	19.3	7.5	6.3	5.2	3.7	17.7	6.8	6.1	5.3	3.8

Security Group 12 PSA Prepayment Assumption Rates

			Class KA				Class KL					Class ZK				
Distribution Date	0%	196%	250%	325%	500%	0%	196%	250%	325%	500%	0%	196%	250%	325%	500%	
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
November 2020	98	93	93	93	93	100	100	100	100	100	104	104	97	88	67	
November 2021	95	79	79	79	79	100	100	100	100	100	107	107	87	59	0	
November 2022	92	63	63	63	49	100	100	100	100	100	111	111	75	28	0	
November 2023	90	48	48	48	28	100	100	100	100	100	115	115	68	9	0	
November 2024	87	35	35	35	13	100	100	100	100	100	119	119	66	1	0	
November 2025	83	24	24	24	3	100	100	100	100	100	123	123	66	0	0	
November 2026	80	15	15	15	0	100	100	100	100	79	128	122	64	0	0	
November 2027	77	8	8	8	0	100	100	100	100	54	132	118	61	0	0	
November 2028	73	2	2	2	0	100	100	100	100	37	137	112	56	0	0	
November 2029	69	0	0	0	0	100	86	86	86	25	142	104	51	0	0	
November 2030	65	0	0	0	0	100	67	67	67	17	147	95	46	0	0	
November 2031	61	0	0	0	0	100	52	52	52	11	152	86	40	0	0	
November 2032	56	0	0	0	0	100	41	41	41	8	158	77	35	0	0	
November 2033	51	0	0	0	0	100	31	31	31	5	163	68	31	0	0	
November 2034	46	0	0	0	0	100	24	24	24	3	169	60	26	0	0	
November 2035	41	0	0	0	0	100	19	19	19	2	175	52	22	0	0	
November 2036	35	0	0	0	0	100	14	14	14	2	181	45	19	0	0	
November 2037	29	0	0	0	0	100	11	11	11	1	188	38	16	0	0	
November 2038	23	0	0	0	0	100	8	8	8	1	194	32	13	0	0	
November 2039	16	0	0	0	0	100	6	6	6	0	201	27	10	0	0	
November 2040	9	0	0	0	0	100	4	4	4	0	208	22	8	0	0	
November 2041	2	0	0	0	0	100	3	3	3	0	216	18	7	0	0	
November 2042	0	0	0	0	0	67	2	2	2	0	223	15	5	0	0	
November 2043	0	0	0	0	0	23	2	2	2	0	231	11	4	0	0	
November 2044	0	0	0	0	0	1	1	1	1	0	216	9	3	0	0	
November 2045	0	0	0	0	0	1	1	1	1	0	178	6	2	0	0	
November 2046	0	0	0	0	0	0	0	0	0	0	138	4	1	0	0	
November 2047	0	0	0	0	0	0	0	0	0	0	95	3	1	0	0	
November 2048	0	0	0	0	0	0	0	0	0	0	49	1	0	0	0	
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weighted Average																
Life (years)	13.3	4.2	4.2	4.2	3.1	23.4	13.3	13.3	13.3	9.0	27.4	15.7	10.3	2.4	1.2	

Security Group 13 PSA Prepayment Assumption Rates

		Class	ses BF ar	nd BS			Classes EF and ES			Classes FH and SH					
Distribution Date	0%	308%	400%	475%	800%	0%	308%	400%	475%	800%	0%	308%	400%	475%	800%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	98	90	90	90	90	99	92	90	89	84	99	92	90	89	82
November 2021	96	73	73	73	60	97	77	73	70	53	98	78	73	69	51
November 2022	94	55	55	55	31	96	61	55	50	27	96	63	55	48	26
November 2023	92	40	40	40	16	94	48	41	35	14	95	50	41	34	13
November 2024	89	28	28	28	8	93	38	30	25	7	94	40	30	24	7
November 2025	87	20	20	20	4	91	29	22	17	4	92	32	23	17	4
November 2026	84	14	14	14	2	89	23	16	12	2	90	26	17	12	2
November 2027	81	10	10	10	1	87	18	12	8	1	89	20	13	8	1
November 2028	78	7	7	7	1	85	14	9	6	0	87	16	9	6	0
November 2029	75	5	5	5	0	83	11	6	4	0	85	13	7	4	0
November 2030	72	3	3	3	0	80	9	5	3	0	83	10	5	3	0
November 2031	68	2	2	2	0	78	7	3	2	0	80	8	4	2	0
November 2032	65	2	2	2	0	75	5	2	1	0	78	6	3	1	0
November 2033	61	1	1	1	0	72	4	2	1	0	75	5	2	1	0
November 2034	57	1	1	1	0	69	3	1	1	0	73	4	1	1	0
November 2035	52	0	0	0	0	66	2	1	0	0	70	3	1	0	0
November 2036	47	0	0	0	0	62	2	1	0	0	66	2	1	0	0
November 2037	42	0	0	0	0	58	1	0	0	0	63	2	1	0	0
November 2038	37	0	0	0	0	55	1	0	0	0	59	1	0	0	0
November 2039	32	0	0	0	0	50	1	0	0	0	56	1	0	0	0
November 2040	26	0	0	0	0	46	1	0	0	0	52	1	0	0	0
November 2041	19	0	0	0	0	41	0	0	0	0	47	1	0	0	0
November 2042	13	0	0	0	0	36	0	0	0	0	43	0	0	0	0
November 2043	5	0	0	0	0	30	0	0	0	0	38	0	0	0	0
November 2044	0	0	0	0	0	25	0	0	0	0	32	0	0	0	0
November 2045	0	0	0	0	0	21	0	0	0	0	27	0	0	0	0
November 2046	0	0	0	0	0	16	0	0	0	0	21	0	0	0	0
November 2047	0	0	0	0	0	11	0	0	0	0	14	0	0	0	0
November 2048	0	0	0	0	0	6	0	0	0	0	7	0	0	0	0
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	15.2	4.0	4.0	4.0	2.6	18.6	5.0	4.2	3.8	2.4	19.6	5.3	4.3	3.7	2.4

Security Group 13 PSA Prepayment Assumption Rates

			Class KB	3			Class KZ				Class YK				
Distribution Date	0%	308%	400%	475%	800%	0%	308%	400%	475%	800%	0%	308%	400%	475%	800%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
November 2020	98	89	89	89	89	104	104	90	79	31	100	100	100	100	100
November 2021	96	70	70	70	54	107	107	70	40	0	100	100	100	100	100
November 2022	93	49	49	49	21	111	111	53	10	0	100	100	100	100	100
November 2023	91	31	31	31	4	115	115	48	0	0	100	100	100	100	100
November 2024	88	18	18	18	0	119	115	46	0	0	100	100	100	100	66
November 2025	85	8	8	8	0	123	109	42	0	0	100	100	100	100	34
November 2026	82	2	2	2	0	128	98	36	0	0	100	100	100	100	17
November 2027	79	0	0	0	0	132	86	31	0	0	100	78	78	78	9
November 2028	75	0	0	0	0	137	74	25	0	0	100	55	55	55	4
November 2029	72	0	0	0	0	142	63	20	0	0	100	38	38	38	2
November 2030	68	0	0	0	0	147	53	16	0	0	100	26	26	26	1
November 2031	64	0	0	0	0	152	43	13	0	0	100	18	18	18	1
November 2032	60	0	0	0	0	158	35	10	0	0	100	13	13	13	0
November 2033	55	0	0	0	0	163	29	8	0	0	100	9	9	9	0
November 2034	51	0	0	0	0	169	23	6	0	0	100	6	6	6	0
November 2035	46	0	0	0	0	175	18	4	0	0	100	4	4	4	0
November 2036	40	0	0	0	0	181	14	3	0	0	100	3	3	3	0
November 2037	34	0	0	0	0	188	11	2	0	0	100	2	2	2	0
November 2038	28	0	0	0	0	194	9	2	0	0	100	1	1	1	0
November 2039	22	0	0	0	0	201	7	1	0	0	100	1	1	1	0
November 2040	15	0	0	0	0	208	5	1	0	0	100	1	1	1	0
November 2041	8	0	0	0	0	216	4	1	0	0	100	0	0	0	0
November 2042	0	0	0	0	0	223	3	0	0	0	100	0	0	0	0
November 2043	0	0	0	0	0	231	2	0	0	0	45	0	0	0	0
November 2044	0	0	0	0	0	227	1	0	0	0	0	0	0	0	0
November 2045	0	0	0	0	0	187	1	0	0	0	0	0	0	0	0
November 2046	0	0	0	0	0	145	1	0	0	0	0	0	0	0	0
November 2047	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	51	0	0	0	0	0	0	0	0	0
November 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	14.0	3.2	3.2	3.2	2.2	27.5	11.4	5.8	1.8	0.8	23.9	10.1	10.1	10.1	5.9

Security Groups 12 and 13 PSA Prepayment Assumption Rates

					Class K				
Distribution Date	0%	196%	250%	308%	325%	400%	475%	500%	800%
Initial Percent	100	100	100	100	100	100	100	100	100
November 2020	98	92	92	91	91	91	91	91	91
November 2021	95	79	77	75	75	75	75	75	57
November 2022	93	63	60	57	57	55	50	48	21
November 2023	90	49	45	41	41	36	31	28	3
November 2024	87	36	32	28	28	22	17	14	0
November 2025	84	25	20	17	17	11	7	4	0
November 2026	81	16	11	9	9	4	1	0	0
November 2027	78	8	4	4	4	0	0	0	0
November 2028	74	2	1	1	1	0	0	0	0
November 2029	70	0	0	0	0	0	0	0	0
November 2030	66	0	0	0	0	0	0	0	0
November 2031	62	0	0	0	0	0	0	0	0
November 2032	58	0	0	0	0	0	0	0	0
November 2033	53	0	0	0	0	0	0	0	0
November 2034	48	0	0	0	0	0	0	0	0
November 2035	43	0	0	0	0	0	0	0	0
November 2036	37	0	0	0	0	0	0	0	0
November 2037	32	0	0	0	0	0	0	0	0
November 2038	25	0	0	0	0	0	0	0	0
November 2039	19	0	0	0	0	0	0	0	0
November 2040	12	0	0	0	0	0	0	0	0
November 2041	4	0	0	0	0	0	0	0	0
November 2042	0	0	0	0	0	0	0	0	0
November 2043	0	0	0	0	0	0	0	0	0
November 2044	0	0	0	0	0	0	0	0	0
November 2045	0	0	0	0	0	0	0	0	0
November 2046	0	0	0	0	0	0	0	0	0
November 2047	0	0	0	0	0	0	0	0	0
November 2048	0	0	0	0	0	0	0	0	0
November 2049	0	0	0	0	0	0	0	0	0
Weighted Average									
Life (years)	13.6	4.2	3.9	3.7	3.7	3.4	3.2	3.1	2.2

Security Groups 12 and 13 PSA Prepayment Assumption Rates

	Classes KO, KW and KY									
Distribution Date	0%	196%	250%	308%	325%	400%	475%	500%	800%	
Initial Percent	100	100	100	100	100	100	100	100	100	
November 2020	100	100	100	100	100	100	100	100	100	
November 2021	100	100	100	100	100	100	100	100	100	
November 2022	100	100	100	100	100	100	100	100	100	
November 2023	100	100	100	100	100	100	100	100	100	
November 2024	100	100	100	100	100	100	100	100	59	
November 2025	100	100	100	100	100	100	100	100	30	
November 2026	100	100	100	100	100	100	93	86	15	
November 2027	100	100	94	92	92	89	68	59	8	
November 2028	100	100	83	83	83	64	48	40	4	
November 2029	100	76	68	68	68	47	33	27	2	
November 2030	100	52	52	52	52	34	23	19	1	
November 2031	100	40	40	40	40	24	16	13	1	
November 2032	100	30	30	30	30	18	11	9	0	
November 2033	100	23	23	23	23	13	8	6	0	
November 2034	100	17	17	17	17	9	5	4	0	
November 2035	100	13	13	13	13	6	4	3	0	
November 2036	100	10	10	10	10	5	2	2	0	
November 2037	100	7	7	7	7	3	2	1	0	
November 2038	100	6	6	6	6	2	1	1	0	
November 2039	100	4	4	4	4	2	1	0	Ö	
November 2040	100	3	3	3	3	1	0	0	0	
November 2041	100	2	2	2	2	1	0	0	0	
November 2042	79	2	2	2	2	1	Ö	Õ	Ö	
November 2043	31	1	1	1	1	0	0	0	0	
November 2044	1	1	1	1	1	0	0	0	0	
November 2045	0	0	0	0	0	Ö	Ö	Ö	Ö	
November 2046	0	0	0	0	0	0	0	0	0	
November 2047	Õ	Õ	Õ	0	Õ	Ö	Õ	Õ	0	
November 2048	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	Ő	
November 2049	Ŏ	ŏ	ŏ	Ö	Ö	ő	ŏ	ŏ	0	
Weighted Average		V	Ů,	0	· ·	· ·	V	Ů,		
Life (years)	23.6	12.4	12.1	12.1	12.1	10.7	9.7	9.2	5.7	

					Class ZE				
Distribution Date	0%	196%	250%	308%	325%	400%	475%	500%	800%
Initial Percent	100	100	100	100	100	100	100	100	100
November 2020	104	104	100	96	94	84	74	71	31
November 2021	107	107	96	84	77	48	20	13	0
November 2022	111	111	91	70	59	23	4	0	0
November 2023	115	115	88	62	49	21	0	0	0
November 2024	119	119	89	58	44	20	0	0	0
November 2025	123	123	91	55	41	18	0	0	0
November 2026	128	125	92	50	37	16	0	0	0
November 2027	132	124	92	44	32	13	0	0	0
November 2028	137	123	84	38	27	11	0	0	0
November 2029	142	120	74	33	23	9	0	0	0
November 2030	147	114	65	27	19	7	0	0	0
November 2031	152	102	56	23	15	6	0	0	0
November 2032	158	90	48	19	13	4	0	0	0
November 2033	163	78	41	15	10	3	0	0	0
November 2034	169	68	34	12	8	3	0	0	0
November 2035	175	58	29	10	6	2	0	0	0
November 2036	181	50	24	8	5	1	0	0	0
November 2037	188	42	19	6	4	1	0	0	0
November 2038	194	35	16	5	3	1	0	0	0
November 2039	201	29	13	4	2	1	0	0	0
November 2040	208	24	10	3	2	0	0	0	0
November 2041	216	20	8	2	1	0	0	0	0
November 2042	223	16	6	2	1	0	0	0	0
November 2043	231	12	5	1	1	0	0	0	0
November 2044	221	9	3	1	0	0	0	0	0
November 2045	182	7	2	1	0	0	0	0	0
November 2046	141	4	2	0	0	0	0	0	0
November 2047	97	3	1	0	0	0	0	0	0
November 2048	50	1	0	0	0	0	0	0	0
November 2049	0	0	0	0	0	0	0	0	0
Weighted Average									
Life (years)	27.5	16.6	13.0	7.8	6.3	3.4	1.5	1.4	0.8

#### **Yield Considerations**

An investor seeking to maximize yield should make a decision whether to invest in any Regular or MX Class based on the anticipated yield of that Class resulting from its purchase price, the investor's own projection of Mortgage Loan prepayment rates under a variety of scenarios, in the case of the Group 1, 2, 4, 8 and 11 Securities, the investor's own projection of payment rates on the Underlying Certificates under a variety of scenarios and, in the case of a Floating Rate, an Inverse Floating Rate or a Weighted Average Coupon 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 (especially the Principal Only Classes), slower than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- Investors in an MX Class that is subject to mandatory exchange should consider that differing rates of reduction in the related REMIC Securities may ultimately cause such a Class to become a Principal Only Class or to be exchanged for the related REMIC Securities (consisting primarily or exclusively of an Interest Only Class).

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

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

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

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

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

The Mortgage Loans will not prepay at any constant rate until maturity, nor will all of the Mortgage Loans underlying any Trust Asset Group prepay at the same rate at any one time. The timing of changes in the rate of prepayments may affect the actual yield to an investor, even if the average rate of principal prepayments is consistent with the investor's expectation. In general, the earlier a prepayment of principal on the Mortgage Loans, the greater the effect on an investor's yield. As a result, the effect on an investor's yield of principal prepayments occurring at a rate higher (or lower) than the rate antici-

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

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

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

#### **Yield Tables**

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

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

The yields were calculated by

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

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

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

#### **SECURITY GROUP 1**

## Sensitivity of Class BI to Prepayments Assumed Price 15.8%\*

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

100%	250%	308%	400%	500%
17.3%	5.2%	0.0%	(8.8)%	(19.3)%

## **SECURITY GROUP 3**

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

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

150%	300%	450%	600%	746%
14.0%	13.9%	12.0%	6.3%	0.0%

## **SECURITY GROUP 4**

# Sensitivity of Class AW to Prepayments Assumed Price 13.75%\*

**PSA Prepayment Assumption Rates** 

LIBOR	150%	300%	450%	600%
1.250000% and below	4.9%	(26.1)%	(42.2)%	(63.4)%
1.723630%	2.6%	(26.6)%	(42.4)%	(63.6)%
2.486815%	(2.0)%	(27.6)%	(42.8)%	(63.9)%
3.250000% and above	(10.4)%	(28.4)%	(43.2)%	(64.1)%

## Sensitivity of Class IO to Prepayments Assumed Price 12.6%\*

	13A Trepayment Assumption Rates						
LIBOR	150%	300%	450%	600%			
1.250000%	13.4%	(2.0)%	(12.7)%	(23.8)%			
1.723630%	11.4%	(3.0)%	(13.6)%	(24.6)%			
2.486815%	8.2%	(4.6)%	(15.0)%	(25.9)%			
3.250000%	4.5%	(6.2)%	(16.4)%	(27.3)%			
4.675000%	2.4%	(8.4)%	(18.6)%	(29.5)%			
6.100000% and above	0.2%	(10.8)%	(21.0)%	(31.9)%			

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

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

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

150%	300%	450%	600%	759%
34.7%	26.6%	18.2%	9.5%	0.0%

## Sensitivity of Class SQ to Prepayments Assumed Price 11.5%\*

	<b>PSA Prepayment Assumption Rates</b>			
LIBOR	150%	300%	450%	600%
1.000000%	38.4%	30.0%	21.4%	12.5%
1.723630%	31.0%	22.6%	13.8%	4.7%
3.911815%	9.2%	0.4%	(8.8)%	(18.5)%
6.100000% and above	**	**	**	3/43/4

#### **SECURITY GROUP 6**

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

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

250%	350%	441%	585%	700%
8.5%	8.5%	8.5%	0.0%	(7.6)%

## Sensitivity of Class EI to Prepayments Assumed Price 17.1%\*

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

250%	350%	441%	582%	700%
8.2%	8.2%	8.2%	0.0%	(7.9)%

## **SECURITY GROUP 7**

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

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

LIBOR	225%	325%	425%	700%
1.0000%	19.5%	14.0%	8.3%	(7.9)%
1.7616%	14.0%	8.4%	2.6%	(14.0)%
3.9058%	(1.7)%	(7.6)%	(13.7)%	(31.4)%
6.0500% and above	**	**	**	**

## **SECURITY GROUP 8**

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

150%	300%	450%	597%	600%
6.1%	5.5%	3.3%	0.0%	(0.1)%

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

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

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

**PSA Prepayment Assumption Rates** 

150%	300%	450%	565%	600%
6.9%	5.6%	2.9%	0.0%	(1.0)%

## Sensitivity of Class IP to Prepayments Assumed Price 39.0%\*

**PSA Prepayment Assumption Rates** 

150%	300%	450%	600%	602%
6.2%	5.6%	3.4%	0.1%	0.0%

# Sensitivity of Class LI to Prepayments Assumed Price 29.0%\*

**PSA Prepayment Assumption Rates** 

150%	300%	450%	600%	625%
6.6%	6.6%	4.3%	0.7%	0.0%

## Sensitivity of Class LO to Prepayments Assumed Price 65.0%

**PSA Prepayment Assumption Rates** 

	* '		
150%	300%	450%	600%
2.0%	2.0%	2.7%	3.6%

## Sensitivity of Class OB to Prepayments Assumed Price 65.0%

**PSA Prepayment Assumption Rates** 

150%	300%	450%	600%
1.6%	1.8%	2.5%	3.3%

# Sensitivity of Class OL to Prepayments Assumed Price 65.0%

150%	300%	450%	600%	
1.6%	2.0%	2.8%	3.7%	

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

## Sensitivity of Class OP to Prepayments Assumed Price 65.0%

**PSA Prepayment Assumption Rates** 

	* *	*	
150%	300%	450%	600%
1.6%	1.9%	2.5%	3.3%

## Sensitivity of Class PI to Prepayments Assumed Price 35.5%\*

**PSA Prepayment Assumption Rates** 

150%	300%	450%	586%	600%
6.5%	6.2%	3.6%	0.0%	(0.4)%

# Sensitivity of Class PO to Prepayments Assumed Price 65.0%

**PSA Prepayment Assumption Rates** 

150%	300%	450%	600%
1.9%	2.0%	2.8%	3.8%

## Sensitivity of Class SB to Prepayments Assumed Price 3.25%\*

**PSA Prepayment Assumption Rates** 

LIBOR	150%	300%	450%	600%
1.000000%	75.4%	67.7%	59.8%	51.7%
1.723630%	47.8%	39.8%	31.6%	23.2%
2.566815%	17.2%	8.7%	(0.1)%	(9.3)%
3.410000% and above	**	**	**	**

# Sensitivity of Class WA to Prepayments Assumed Price 91.0%\*

	PSA Prepayment Assumption Rates			
LIBOR	150%	300%	450%	600%
1.000000%	6.9%	4.6%	4.4%	4.6%
1.723630%	4.5%	3.1%	3.1%	3.3%
2.566815%	2.2%	1.7%	1.8%	2.0%
3.410000% and above	0.4%	0.5%	0.6%	0.8%

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

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

#### **SECURITY GROUP 9**

# Sensitivity of Class CS to Prepayments Assumed Price 14.4%\*

	PSA Prepayment Assumption Rates			
LIBOR	273%	325%	400%	700%
1.0000%	15.1%	15.1%	15.1%	(2.0)%
1.7590%	8.8%	8.8%	8.8%	(8.9)%
3.9295%	(9.5)%	(9.5)%	(9.5)%	(28.9)%
6.1000% and above	**	**	**	**

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

PSA	Prepayme	nt Assum	ption	Rates
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273%	325%	400%	530%	700%
7.6%	7.6%	7.6%	0.0%	(11.4)%

#### **SECURITY GROUP 10**

#### Sensitivity of Class NS to Prepayments Assumed Price 17.1%\*

	PSA Prepayment Assumption Rates				
LIBOR	250%	320%	350%	700%	
1.00000%	15.5%	11.7%	10.1%	(10.0)%	
1.76538%	10.3%	6.4%	4.7%	(15.8)%	
3.88269%	(4.4)%	(8.5)%	(10.3)%	(32.4)%	
6.00000% and above	**	**	**	**	

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

	PSA Prepayment Assumption Rates				
LIBOR	250%	320%	350%	700%	
1.00000%	15.1%	11.0%	9.3%	(11.9)%	
1.76538%	9.9%	5.8%	4.0%	(17.6)%	
3.88269%	(4.8)%	(9.0)%	(10.8)%	(33.5)%	
6.00000% and above	**	**	**	**	

#### **SECURITY GROUP 11**

## Sensitivity of Class QO to Prepayments Assumed Price 82.0%

100%	200%	300%	400%
1.0%	1.5%	2.0%	2.5%

<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 QS to Prepayments Assumed Price 5.5%\*

	PSA Prepayment Assumption Rates			
LIBOR	100%	200%	300%	400%
1.000000%	112.9%	112.9%	100.0%	77.0%
1.723630%	95.2%	95.2%	82.8%	60.0%
3.936815%	44.8%	44.5%	33.7%	13.6%
6.150000% and above	**	**	**	非非

# Sensitivity of Class QW to Prepayments Assumed Price 94.5%\*

	PSA Prepayment Assumption Rates				
LIBOR	100%	200%	300%	400%	
1.000000%	13.4%	13.5%	10.5%	6.8%	
1.723630%	11.5%	11.6%	9.1%	5.9%	
3.936815%	6.0%	6.1%	4.8%	3.3%	
6.150000% and above	0.3%	0.5%	0.6%	0.8%	

#### **SECURITY GROUP 12**

## Sensitivity of Class AS to Prepayments Assumed Price 18.75%\*

	PSA	Prepayment	Assumption	Rates
LIBOR	196%	250%	325%	500%
1.00000%	11.4%	11.4%	11.4%	3.1%
1.76538%	6.4%	6.4%	6.4%	(2.4)%
3.90769%	(8.2)%	(8.2)%	(8.2)%	(18.3)%
6.05000% and above	**	**	**	**

# Sensitivity of Class SA to Prepayments Assumed Price 16.75%\*

	PSA	Prepayment	Assumption	Rates
LIBOR	196%	250%	325%	500%
1.00000%	19.8%	17.0%	13.0%	3.5%
1.76538%	14.5%	11.6%	7.6%	(2.2)%
3.90769%	(0.6)%	(3.7)%	(8.0)%	(18.5)%
6.05000% and above	**	**	**	**

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

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

## Sensitivity of Class SE to Prepayments Assumed Price 17.5%\*

	PSA	Assumption	ption Rates		
LIBOR	196%	250%	325%	500%	
1.00000%	16.8%	14.9%	12.3%	3.3%	
1.76538%	11.7%	9.7%	7.0%	(2.3)%	
3.90769%	(2.9)%	(5.2)%	(8.1)%	(18.4)%	
6.05000% and above	**	**	**	**	

#### **SECURITY GROUP 13**

## Sensitivity of Class BS to Prepayments Assumed Price 16.5%\*

	PSA Prepayment Assumption Rates			
LIBOR	308%	400%	475%	800%
1.00000%	7.6%	7.6%	7.6%	(10.0)%
1.76538%	1.7%	1.7%	1.7%	(16.6)%
3.93269%	(15.2)%	(15.2)%	(15.2)%	(36.1)%
6.10000% and above	**	**	**	**

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

	PSA Prepayment Assumption Rates				
LIBOR	308%	400%	475%	800%	
1.00000%	16.0%	11.8%	8.5%	(10.4)%	
1.76538%	10.1%	5.7%	2.4%	(17.0)%	
3.93269%	(6.8)%	(11.6)%	(15.3)%	(36.5)%	
6.10000% and above	**	**	**	***	

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

	PS	A Prepayment	Assumption R	lates
LIBOR	308%	400%	475%	800%
1.00000%	17.9%	12.8%	8.5%	(10.8)%
1.76538%	11.9%	6.6%	2.3%	(17.4)%
3.93269%	(5.2)%	(10.8)%	(15.4)%	(36.8)%
6.10000% 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.

#### 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 3 Trust Assets, a Double REMIC Series as to the Group 1, 2, 4 through 8 and 10 through 13 Trust Assets and a Double REMIC Series as to the Group 9 Trust Assets, each for United States federal income tax purposes. Separate REMIC elections will be made for the Group 3 REMIC, the Group 1, 2, 4 through 8 and 10 through 13 Pooling REMIC, the Group 1, 2, 4 through 8 and 10 through 13 Issuing REMIC, the Group 9 Pooling REMIC and the Group 9 Issuing REMIC.

#### **Regular Securities**

The Regular Securities will be treated as debt instruments issued by the Group 1, 2, 4 through 8 and 10 through 13 Issuing REMIC, the Group 3 REMIC or the Group 9 Issuing 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 Principal Only, Notional and Accrual Classes of Regular Securities will be issued with original issue discount ("OID"), and certain other Classes of Regular Securities may be issued with OID. See "Certain United States Federal Income Tax Consequences — Tax Treatment of Regular Securities — Original Issue Discount," "— Variable Rate Securities" and "— Interest Weighted Securities and Non-VRDI Securities" in the Base Offering Circular.

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

Group(s)	<u>PSA</u>
1, 2 and 12	250%
3, 4 and 8	300%
5	225%
6	350%
7 and 9	325%
10	320%
11	200%
13	400%

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.

Under Code Section 451(b), taxpayers using an accrual method of accounting for tax purposes generally will be required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements. Under proposed Treasury regulations on which taxpayers generally may rely, the timing of inclusion of market discount and original issue discount (including de minimis market discount and original issue discount) generally would not be affected by Code Section 451(b). Prospective investors in Regular Securities that use an accrual method of accounting for tax purposes are urged to consult with their tax advisors regarding the potential applicability of Code Section 451(b) and the proposed Treasury regulations to their particular situation.

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

#### **Residual Securities**

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Group 1, 2, 4 through 8 and 10 through 13 Pooling REMIC and the beneficial ownership of the Residual Interest in the Group 1, 2, 4 through 8 and 10 through 13 Issuing REMIC. The Class R3 Securities will represent the beneficial ownership of the Residual Interest in the Group 3 REMIC. The Class RR9 Securities will represent the beneficial ownership of the Residual Interest in the Group 9 Pooling REMIC and the beneficial ownership of the Residual Interest in the Group 9 Issuing REMIC. The Residual Securities, i.e., the Class RR, R3 and RR9 Securities, generally will be treated as "residual interests" in a REMIC for domestic building and loan associations and as "real estate assets" for REITs, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular, but will not be treated as debt for United States federal income tax purposes. Instead, the Holders of the Residual Securities will be required to report, and will be taxed on, their pro rata shares of the taxable income or loss of the related Trust REMICs, and these requirements will continue until there are no outstanding regular interests in the respective Trust REMICs Securities of any Class outstanding. Thus, Residual Holders will have taxable income attributable to the Residual Securities even though they will not receive principal or interest distributions with respect to the Residual Securities, which could result in a negative after-tax return for the Residual Holders. Even though the Holders of the Residual Securities are not entitled to any stated principal or interest payments on the Residual Securities, the related Trust REMICs may have substantial taxable income in certain periods, and offsetting tax losses may not occur until much later periods. Accordingly, the Holders of the Residual Securities may experience substantial adverse tax timing consequences. Prospective investors are urged to consult their own tax advisors and consider the after-tax effect of ownership of the Residual Securities and the suitability of the Residual Securities to their investment objectives.

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

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

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

#### **MX Securities**

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

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

#### Foreign Account Tax Compliance Act

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

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

#### **ERISA MATTERS**

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

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

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

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

See "ERISA Considerations" in the Base Offering Circular.

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

#### LEGAL INVESTMENT CONSIDERATIONS

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

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

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

#### PLAN OF DISTRIBUTION

Subject to the terms and conditions of the Sponsor Agreement, the Sponsor has agreed to purchase all of the Securities if any are sold and purchased. The Sponsor proposes to offer the Regular and MX Classes to the public from time to time for sale in negotiated transactions at varying prices to be determined at the time of sale, plus accrued interest, if any, from (1) November 1, 2019 on the Fixed Rate and Delay Classes and (2) November 20, 2019 on the Floating Rate, Inverse Floating Rate and Weighted Average Coupon Classes other than the Delay Classes. The Sponsor may effect these transactions by sales to or through certain securities dealers. These dealers may receive compensation in the form of discounts, concessions or commissions from the Sponsor and/or commissions from any pur-

chasers 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), (2) the Original Component Principal Balance of each Component of each related Class and (3) the Aggregate Scheduled Principal Balances of each Class or Component receiving principal distributions or interest distributions based upon a notional balance from the same Trust Asset Group will increase by the same proportion. The Trust Agreement, the Final Data Statement, the Final Schedules and the Supplemental Statement, if any, will reflect any increase in the size of the transaction.

#### **LEGAL MATTERS**

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

Available Combinations(1)

	Final Distribution Date(4)	November 2049 November 2049 November 2049 November 2049 November 2049	August 2049	November 2049	38382A2Z7 November 2049
	1				Nov 7
	CUSIP	38382A2S3 38382A2T1 38382A2U8 38382A2V6 38382A2V4	38382A2X2	38382A2Y0	38382A2Z7
cs	Interest Type(3)	FIX FIX FIX FIX FIXJO	WAC/IO/DLY	FIX	FIX
MX Securities	Interest Rate	2.00% 2.25 2.50 2.75 3.00	(5)	2.00%	2.50%
	Principal Type(3)	SEQ SEQ SEQ SEQ SEQ NTI.(SEQ)	NTL(SC/PT)	PAC/AD	PT
	Maximum Original Class Principal Balance or Class Notional Balance(2)	\$14,456,803 14,456,803 14,456,803 14,456,803 4,818,934	\$30,654,925	\$74,596,302	\$29,786,280
	Related MX Class	AD AE AG AH	OI	PA	GM
ities	Original Class Principal Balance or Class Notional Balance	\$14,456,803	\$20,602,874 6,101,007 3,951,044	\$33,853,922 40,742,380	\$22,659,961 250,541 6,875,778
REMIC Securities	Class	Security Group 3 Combination 1(6) AC	Security Group 4 Combination 2 AW MI SQ Security Group 6 Combination 3	PB PC <b>Security Group 7</b> Combination 4	GA GI GT

REMIC Securities	ities				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 8 Combination 5								
OT	\$ 691,500	WA(8)	\$ 6,508,380	SC/PT	(5)	WAC	38382A3A1	October 2049
OB	921,614							
ТО	614,287							
OP	1,035,979							
PO	3,245,000							
SB	33,724,768							
Security Group 9 Combination 6(6)								
CA	\$80,996,592	CB	\$80,996,592	PAC/AD	2.25%	FIX	38382A3B9	November 2049
		C	80,996,592	PAC/AD	2.00	FIX	38382A3C7	November 2049
		CE	80,996,592	PAC/AD	1.75	FIX	38382A3D5	November 2049
		SO	80,996,592	PAC/AD	1.50	FIX	38382A3E3	November 2049
		CH	80,996,592	PAC/AD	1.25	FIX	38382A3F0	November 2049
		$_{ m CM}$	57,854,708	PAC/AD	3.00	FIX	38382A3G8	November 2049
		CN	67,497,160	PAC/AD	2.75	FIX	38382A3H6	November 2049
		IC	22,499,053	NTL(PAC/AD)	4.50	FIX/IO	38382A3J2	November 2049
Security Group 10								
NA	\$28.695.000	NB	\$31.593.000	PACI	2.50%	FIX	38382A3K9	November 2049
NY	2,898,000							
Combination 8								
FN	\$ 6,301,420	FM	\$31,744,683	PT	(5)	FLT	38382A3L7	November 2049
NF	25,443,263							
Security Group 11								
Colifbination 3	0/07000	(0)1111	0/0 000 0	Į.	(	( Tikk	13 60 4 000000	-
SS SS	\$ 5,381,942 7,832,114	QW(8)	\$ 5,581,942	SC/PT	$\mathfrak{S}$	WAC	58582A5M5	September 2049

REMIC Securities	rities			I	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 12 Combination 10								
AF	\$ 9,431,333	FE	\$25,931,333	PT/PAC/AD	(5)	FLT	38382A3N3	November 2049
FA	16,500,000							
Combination 11								
AS	\$ 9,431,333	SE	\$25,931,333	NTL(PT/PAC/AD)	(S)	OI/ANI	38382A3P8	November 2049
SA	16,500,000							
Security Group 13								
Combination 12								
BF	\$ 7,148,000	EF	\$32,148,000	PT/PAC/AD	(S)	FLT	38382A3Q6	November 2049
FH	25,000,000							
Combination 13								
BS	\$ 7,148,000	ES	\$32,148,000	NTL(PT/PAC/AD)	(S)	OI/ANI	38382A3R4	November 2049
HS	25,000,000							
Security Groups 12 and 13	and 13							
Combination 14(7)								
KA	\$15,856,000	K	\$28,413,000	PAC/AD	2.00%	FIX	38382A3S2	June 2048
KB	12,557,000							
Combination $15(6)(7)$	_							
KL	\$ 3,006,667	KO	\$ 949,134	PAC/AD	0.00%	PO	38382A3T0	November 2049
YK	1,739,000	KW	3,796,533	PAC/AD	2.50	FIX	38382A3U7	November 2049
		KY	4,745,667	PAC/AD	2.00	FIX	38382A3V5	November 2049
Combination 16(7)								
KZ ZK	\$ 3,556,000 4,706,000	ZE	\$ 8,262,000	SUP	3.50	FIX/Z	38382A3W3	38382A3W3 November 2049

(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.  $\odot$ 

<sup>(3)</sup> 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)

- (5) The Interest Rate will be calculated as described under "Terms Sheet Interest Rates" in this Supplement.
- In the case of Combinations 1, 6 and 15, various subcombinations are permitted. See "Description of the Securities Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations. 9
- (7) Derived from REMIC Classes relating to separate Groups.
- on the last Business Day of the calendar month immediately preceding the related Distribution Date in the first case, and prior to the related Distribution Date on which the Class Principal Balance of this MX Class would be reduced to zero in the second case, effect a mandatory exchange of this MX Class for its related REMIC Securities and, thereafter, no further exchanges of such REMIC Securities will In the event that either (1) the Interest Rate of this MX Class will equal or exceed 1,200% per annum for any Accrual Period or (2) the Class Principal Balance of this MX Class will be reduced to zero on any Distribution Date, the Trustee will, prior to the close of business be permitted. 8

# Schedule II

# SCHEDULED PRINCIPAL BALANCES

Distribution Date	Classes DL and DP (in the aggregate)	Classes PB and PY (in the aggregate)	Classes PC and YP (in the aggregate)
Initial Balance	\$10,261,000.00	\$34,104,942.00	\$41,044,477.00
December 2019	10,226,783.65	33,837,014.62	40,722,032.85
January 2020	10,189,378.32	33,552,133.45	40,379,185.21
February 2020	10,148,797.70	33,250,531.87	40,016,214.97
March 2020	10,105,057.96	32,932,464.93	39,633,429.06
April 2020	10,058,177.68	32,598,209.04	39,231,160.14
May 2020	10,008,177.87	32,248,061.51	38,809,766.02
June 2020	9,955,081.96	31,882,340.16	38,369,629.17
July 2020	9,898,915.75	31,501,382.76	37,911,156.11
August 2020	9,839,707.44	31,105,546.54	37,434,776.75
September 2020	9,777,487.55	30,695,207.58	36,940,943.69
October 2020	9,712,288.94	30,270,760.19	36,430,131.47
November 2020	9,644,146.76	29,832,616.22	35,902,835.75
December 2020	9,573,098.41	29,381,204.38	35,359,572.46
January 2021	9,499,183.51	28,916,969.45	34,800,876.89
February 2021	9,422,443.88	28,440,371.53	34,227,302.76
March 2021	9,342,923.46	27,951,885.18	33,639,421.21
April 2021	9,260,668.32	27,451,998.62	33,037,819.76
May 2021	9,175,726.54	26,941,212.78	32,423,101.30
June 2021	9,088,148.22	26,420,040.43	31,795,882.91
July 2021	8,997,985.42	25,889,005.20	31,156,794.79
August 2021	8,905,292.06	25,364,835.62	30,525,969.32
September 2021	8,810,123.93	24,847,433.55	29,903,288.39
October 2021	8,712,538.56	24,336,702.19	29,288,635.48
November 2021	8,612,595.20	23,832,546.02	28,681,895.67
December 2021	8,510,354.77	23,334,870.86	28,082,955.59
January 2022	8,405,879.73	22,843,583.78	27,491,703.41
February 2022	8,299,234.09	22,358,593.12	26,908,028.82
March 2022	8,190,483.25	21,879,808.46	26,331,823.00
April 2022	8,082,588.21	21,407,140.60	25,762,978.62
May 2022	7,975,541.67	20,940,501.58	25,201,389.79
June 2022	7,869,336.42	20,479,804.60	24,646,952.06
July 2022	7,763,965.27	20,024,964.06	24,099,562.41
August 2022	7,659,421.12	19,575,895.49	23,559,119.20
September 2022	7,555,696.92	19,132,515.61	23,025,522.18
October 2022	7,452,785.66	18,694,742.23	22,498,672.45
November 2022	7,350,680.40	18,262,494.30	21,978,472.47
December 2022	7,249,374.26	17,835,691.85	21,464,825.99
January 2023	7,148,860.40	17,414,256.00	20,957,638.10
February 2023	7,049,132.04	16,998,108.96	20,456,815.14
March 2023	6,950,182.45	16,587,173.96	19,962,264.76
April 2023	6,852,004.97	16,181,375.28	19,473,895.82
May 2023	6,754,592.98	15,780,638.25	18,991,618.45
June 2023	6,657,939.92	15,384,889.18	18,515,343.96
July 2023	6,562,039.26	14,994,055.39	18,044,984.91

Distribution Date	Classes DL and DP (in the aggregate)	Classes PB and PY (in the aggregate)	Classes PC and YP (in the aggregate)
August 2023	\$ 6,466,884.55	\$14,608,065.19	\$17,580,454.99
September 2023	6,372,469.38	14,226,847.86	17,121,669.10
October 2023	6,278,787.39	13,850,333.62	16,668,543.28
November 2023	6,185,832.28	13,480,841.89	16,223,868.88
December 2023	6,093,597.78	13,121,087.40	15,790,913.01
January 2024	6,002,077.68	12,770,815.86	15,369,369.63
February 2024	5,911,265.83	12,429,779.57	14,958,940.67
March 2024	5,821,156.13	12,097,737.29	14,559,335.78
April 2024	5,731,742.49	11,774,454.00	14,170,272.12
May 2024	5,643,018.93	11,459,700.80	13,791,474.22
June 2024	5,554,979.46	11,153,254.73	13,422,673.74
July 2024	5,467,618.18	10,854,898.60	13,063,609.32
August 2024	5,380,929.20	10,564,420.87	12,714,026.37
September 2024	5,294,906.72	10,281,615.50	12,373,676.92
October 2024	5,209,544.95	10,006,281.79	12,042,319.42
November 2024	5,124,838.16	9,738,224.24	11,719,718.61
December 2024	5,040,780.66	9,477,252.45	11,405,645.33
January 2025	4,957,366.82	9,223,180.94	11,099,876.40
February 2025	4,874,591.03	8,975,829.09	10,802,194.39
March 2025	4,792,447.75	8,735,020.93	10,512,387.56
April 2025	4,710,931.48	8,500,585.08	10,230,249.66
May 2025	4,630,036.74	8,272,354.62	9,955,579.80
June 2025	4,549,758.12	8,050,166.96	9,688,182.30
July 2025	4,470,090.24	7,833,863.76	9,427,866.60
August 2025	4,391,027.76	7,623,290.75	9,174,447.06
September 2025	4,312,565.41	7,418,297.73	8,927,742.88
October 2025	4,234,697.92	7,218,738.36	8,687,577.99
November 2025	4,157,420.08	7,024,470.13	8,453,780.85
December 2025	4,080,726.75	6,835,354.24	8,226,184.43
January 2026	4,005,282.02	6,651,255.49	8,004,626.02
February 2026	3,931,186.43	6,472,042.22	7,788,947.15
March 2026	3,858,416.40	6,297,586.16	7,578,993.49
April 2026	3,786,948.72	6,127,762.42	7,374,614.70
May 2026	3,716,760.62	5,962,449.34	7,175,664.39
June 2026	3,647,829.69	5,801,528.44	6,981,999.96
July 2026	3,580,133.92	5,644,884.31	6,793,482.52
August 2026	3,513,651.69	5,492,404.57	6,609,976.82
September 2026	3,448,361.73	5,343,979.75	6,431,351.12
October 2026	3,384,243.14	5,199,503.24	6,257,477.12
November 2026	3,321,275.41	5,058,871.21	6,088,229.85
December 2026	3,259,438.35	4,921,982.53	5,923,487.63
January 2027	3,198,712.13	4,788,738.73	5,763,131.91
February 2027	3,139,077.26	4,659,043.87	5,607,047.27
March 2027	3,080,514.59	4,532,804.55	5,455,121.29
April 2027	3,023,005.31	4,409,929.78	5,307,244.46
May 2027	2,966,530.90	4,290,330.97	5,163,310.17
June 2027	2,911,073.21	4,173,921.81	5,023,214.55
July 2027	2,856,614.36	4,060,618.28	4,886,856.47

Distribution Date	Classes DL and DP (in the aggregate)	Classes PB and PY (in the aggregate)	Classes PC and YP (in the aggregate)
August 2027	\$ 2,803,136.80	\$ 3,950,338.52	\$ 4,754,137.44
September 2027	2,750,623.28	3,843,002.83	4,624,961.52
October 2027	2,699,056.85	3,738,533.58	4,499,235.29
November 2027	2,648,420.84	3,636,855.17	4,376,867.78
December 2027	2,598,698.89	3,537,893.99	4,257,770.38
January 2028	2,549,874.91	3,441,578.34	4,141,856.81
February 2028	2,501,933.08	3,347,838.38	4,029,043.03
March 2028	2,454,857.87	3,256,606.13	3,919,247.20
April 2028	2,408,634.02	3,167,815.35	3,812,389.64
May 2028	2,363,246.51	3,081,401.57	3,708,392.74
June 2028	2,318,680.60	2,997,301.99	3,607,180.91
July 2028	2,274,921.81	2,915,455.43	3,508,680.55
August 2028	2,231,955.90	2,835,802.35	3,412,819.98
September 2028	2,189,768.87	2,758,284.74	3,319,529.41
October 2028	2,148,346.99	2,682,846.13	3,228,740.86
November 2028	2,107,676.72	2,609,431.52	3,140,388.14
December 2028	2,067,744.81	2,537,987.34	3,054,406.78
January 2029	2,028,538.21	2,468,461.43	2,970,734.03
February 2029	1,990,044.08	2,400,803.01	2,889,308.74
March 2029	1,952,249.85	2,334,962.61	2,810,071.41
April 2029	1,915,143.13	2,270,892.07	2,732,964.05
May 2029	1,878,711.75	2,208,544.48	2,657,930.24
June 2029	1,842,943.76	2,147,874.19	2,584,915.00
July 2029	1,807,827.42	2,088,836.71	2,513,864.81
August 2029	1,773,351.18	2,031,388.73	2,444,727.56
September 2029	1,739,503.71	1,975,488.10	2,377,452.49
October 2029	1,706,273.86	1,921,093.74	2,311,990.18
November 2029	1,673,650.69	1,868,165.66	2,248,292.52
December 2029	1,641,623.42	1,816,664.94	2,186,312.64
January 2030	1,610,181.50	1,766,553.66	2,126,004.92
February 2030	1,579,314.52	1,717,794.90	2,067,324.93
March 2030	1,549,012.29	1,670,352.72	2,010,229.40
April 2030	1,519,264.77	1,624,192.11	1,954,676.22
May 2030	1,490,062.10	1,579,278.99	1,900,624.36
June 2030	1,461,394.61	1,535,580.17	1,848,033.89
July 2030	1,433,252.78	1,493,063.35	1,796,865.91
August 2030	1,405,627.25	1,451,697.05	1,747,082.57
September 2030	1,378,508.84	1,411,450.65	1,698,646.99
October 2030	1,351,888.53	1,372,294.31	1,651,523.27
November 2030	1,325,757.44	1,334,198.98	1,605,676.47
December 2030	1,300,106.86	1,297,136.40	1,561,072.54
January 2031	1,274,928.23	1,261,079.02	1,517,678.35
February 2031	1,250,213.14	1,226,000.03	1,475,461.63
March 2031	1,225,953.31	1,191,873.33	1,434,390.98
April 2031	1,202,140.62	1,158,673.51	1,394,435.79
May 2031	1,178,767.10	1,126,375.83	1,355,566.30
June 2031	1,155,824.91	1,094,956.18	1,317,753.51
July 2031	1,133,306.34	1,064,391.11	1,280,969.18

August 2031         \$ 1,111,203.81         \$ 1,034,657.78         \$ 1,245,185.84           September 2031         1,089,509.90         1,007,333.96         1,210,376.72           October 2031         1,046,821.73         977,598.00         1,176,515.77           November 2031         1,046,807.42         29,366.89         1,143,577.62           January 2032         1,006,676.16         897,709.25         1,080,371.58           February 2032         986,918.23         872,519.44         1,050,056.78           April 2032         967,526.96         884,017.52         1,020,568.78           April 2032         948,495.75         824,185.06         991,886.99           May 2032         928,181.6         801,041.0         993,898.27           July 2032         893,498.55         756,527.29         910,462.49           July 2032         893,498.55         756,527.29         910,462.49           August 2032         874,818.18         755,197.85         884,793.03           September 2032         875,844.18         755,197.85         884,879.30           September 2032         884,850.91         674,653.20         811,929.00           Occober 2032         80,857.08         655,685.9         788,961.13           January	Distribution Date	Classes DL and DP (in the aggregate)	Classes PB and PY (in the aggregate)	Classes PC and YP (in the aggregate)
October 2031         1,068,217.30         977,598.00         1,176,515,77           November 2031         1,047,318.82         950,228.82         1,143,577.62           December 2031         1,026,807.42         293,605.89         1,111,537.57           January 2032         1,006,676.16         897,709.25         1,080,371.58           February 2032         966,918.23         872,519.44         1,050,056.25           March 2052         967,526.96         848,017.52         1,020,568.78           April 2032         948,495.75         824,185.06         991,886.99           May 2032         929,818.16         801,004.10         963,898.27           June 2032         911,487.83         778,457.19         936,854.59           July 2032         893,498.55         756,527.29         910,462.49           August 2032         893,484.18         753,519.78         884,793.93           September 2032         858,518.71         714,452.75         859,826.80           October 2032         81,516.22         694,276.30         855,544.92           November 2032         824,830.91         674,653.20         811,799.00           December 2033         776,621.52         618,957.29         784,900.31           March 2033	August 2031	\$ 1,111,203.81	\$ 1,034,657.78	\$ 1,245,185.84
November 2031         1,047,318.82         950,228.82         1,143,577.62           December 2031         1,026,807.42         923,605.89         1,111,537.57           January 2032         1,006,676.16         897,709.25         1,080,371.58           February 2032         966,918.23         872,519.44         1,050,056.26           April 2032         948,495.75         824,185.06         901,886.99           May 2032         929,818.16         801,004.10         963,989.27           June 2032         911,487.83         784.457.19         936,854.59           July 2032         893,498.55         756,527.29         910,462.49           August 2032         875,844.18         735,197.85         884,793.03           September 2032         875,844.18         735,197.85         884,793.03           Cotober 2032         841,516.22         694,276.30         855,544.92           December 2032         80,485.01         674,653.20         811,192.00           December 2032         80,487.08         655,568.59         788,961.13           January 2033         726,261.25         618,957.29         746,623.89           December 2032         80,487.08         655,568.59         788,961.13           January 2033	September 2031	1,089,509.90	1,005,733.96	1,210,376.72
December 2031	October 2031	1,068,217.30	977,598.00	1,176,515.77
January 2032	November 2031	1,047,318.82	950,228.82	1,143,577.62
February 2032         986,918.23         872,519.44         1,050,056.25           March 2032         967,526.96         848,017.52         1,020,568.78           April 2032         948,495.75         824,185.06         991,886.99           May 2032         929,818.16         801,004.10         963,989.27           June 2032         911,487.83         778,457.19         936,854.59           July 2032         893,498.55         756,527.29         910,462.49           August 2032         875,844.18         735,197.85         884,793.03           September 2032         858,518.71         714,452.75         859,826.80           October 2032         81,1516.22         694,276.30         815,544.92           November 2032         824,830.91         674,653.20         811,929.00           December 2032         808,457.08         655,568.59         788,961.13           January 2033         72,389.12         637,007.99         744,900.31           February 2033         776,621.52         618,957.29         744,900.31           March 2033         731,067.27         567,729.21         683,248.55           July 2033         731,067.27         567,729.21         683,248.55           July 2033         736,668	December 2031	1,026,807.42	923,605.89	1,111,537.57
March 2032         967,526.96         848,017.52         1,020,568.78           April 2032         948,495.75         824,185.06         991,886.99           May 2032         929,818.16         801,004.10         963,989.27           June 2032         911,487.83         778,457.19         936,854.59           July 2032         893,498.55         756,527.29         910,462.49           August 2032         878,844.18         735,197.85         884,793.03           September 2032         841,516.22         694,276.30         885,449.2           November 2032         824,830.91         674,653.20         811,929.00           December 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         766,623.89           February 2033         731,067.27         557,585.59         788,961.13           May 2034         731,067	January 2032	1,006,676.16	897,709.25	1,080,371.58
April 2032         948,495.75         824,185.06         991,886.99           May 2032         929,818.16         801,004.10         930,898.27           July 2032         911,487.83         778,457.19         936,854.59           July 2032         893,498.55         756,527.29         910,462.49           August 2032         875,844.18         735,197.85         884,793.03           September 2032         858,518.71         714,452.75         898,826.80           October 2032         824,830.91         674,653.20         811,929.00           December 2032         808,457.08         655,568.59         788,961.13           January 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         73,773.87           April 2033         761,48.87         601,402.78         73,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           Jule 2033         716,447.97         551,584.50         663,818.77           July 2033         702,120.91         558,846.10         464,924.34           August 2034         568,627.15	February 2032	986,918.23	872,519.44	1,050,056.25
May 2032         929,818.16         801,004.10         963,989.27           June 2032         911,487.83         778,457.19         910,462.49           July 2032         893,498.55         756,527.29         910,462.49           August 2032         875,844.18         755,197.85         884,793.03           September 2032         858,518.71         714,452.75         859,826.80           October 2032         841,516.22         694,276.30         855,544.92           November 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         555,884.61         644,924.34           August 2033         766,727.29         663,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2034         674,215.83         505,771.68	March 2032	967,526.96	848,017.52	1,020,568.78
June 2032         911,487.83         778,457.19         936,854.59           July 2032         893,498.55         756,527.29         101,046.249           August 2032         875,844.18         735,197.85         884,793.03           September 2032         851,871         714,452.75         859,826.80           October 2032         841,516.22         694,276.30         835,544.92           November 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         511,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2035         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         647,367.46	April 2032	948,495.75	824,185.06	991,886.99
July 2032         893,498.55         756,527.29         910,462.49           August 2032         875,844.18         735,197.85         884,793.03           September 2032         858,518.71         714,452.75         859,826.80           October 2032         841,516.22         694,276.30         835,544.92           November 2032         808,457.08         665,568.20         811,929.00           December 2032         808,457.08         665,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2034         606,0664.16         491,335.59         591,310.66           November 2033         634,32	May 2032	929,818.16	801,004.10	963,989.27
August 2032         875,844.18         735,197.85         884,793.03           September 2032         858,518.71         714,452.75         859,826.80           October 2032         841,516.22         694,276.30         835,544.92           November 2032         824,830.91         674,653.20         811,929.00           December 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           June 2033         751,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,841.16           October 2033         647,307.46         497,298.22         574,417.03           December 2033         634,3	June 2032	911,487.83	778,457.19	936,854.59
September 2032         858,518.71         714,452.75         859,826.80           October 2032         841,516.22         694,276,30         835,544.92           November 2032         824,830.91         674,653.20         811,929.00           December 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         634,321.10         463,648.81         577,990.29           January 2034         608,9	July 2032	893,498.55	756,527.29	910,462.49
October 2032         841,516.22         694,276.30         835,544.92           November 2032         824,830.91         674,653.20         811,929.00           December 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         702,102.91         555,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         674,215.83         505,771.68         608,684.16           October 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608	August 2032	875,844.18	735,197.85	884,793.03
November 2032         824,830.91         674,653.20         811,229.00           December 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2035         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         688,027.15         520,617.57         626,550.82           September 2033         660,664.16         491,335.59         591,310.66           November 2033         647,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608	September 2032	858,518.71	714,452.75	859,826.80
December 2032         808,457.08         655,568.59         788,961.13           January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         674,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84 <td>October 2032</td> <td>841,516.22</td> <td>694,276.30</td> <td>835,544.92</td>	October 2032	841,516.22	694,276.30	835,544.92
January 2033         792,389.12         637,007.99         766,623.89           February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84	November 2032	824,830.91	674,653.20	811,929.00
February 2033         776,621.52         618,957.29         744,900.31           March 2033         761,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         647,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         256,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84	December 2032	808,457.08	655,568.59	788,961.13
March 2033         761,148.87         601,402.78         723,773.87           April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         596,639.88	January 2033	792,389.12	637,007.99	766,623.89
April 2033         745,965.86         584,331.08         703,228.50           May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         584,549.81         412,725.13         496,704.87           May 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,507.37           August 2034         529,635.88	February 2033	776,621.52	618,957.29	744,900.31
May 2033         731,067.27         567,729.21         683,248.55           June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         647,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         527,448.08	March 2033	761,148.87	601,402.78	723,773.87
June 2033         716,447.97         551,584.50         663,818.77           July 2033         702,102.91         535,884.61         644,924.34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         6674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         647,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           Jule 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,057.37           August 2034         538,435.81         367,218.41         441,938.63           September 2034         538,435.81 </td <td>April 2033</td> <td>745,965.86</td> <td>584,331.08</td> <td>703,228.50</td>	April 2033	745,965.86	584,331.08	703,228.50
July 2033         702,102,91         535,884.61         644,924,34           August 2033         688,027.15         520,617.57         626,550.82           September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         637,67.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,057.37           August 2034         538,435.81         367,218.41         441,938.63           September 2034         527,448.08         356,620.74         429,184.59           October 2034         516,668.84<	May 2033	731,067.27	567,729.21	683,248.55
August 2033       688,027.15       520,617.57       626,550.82         September 2033       674,215.83       505,771.68       608,684.16         October 2033       660,664.16       491,335.59       591,310.66         November 2033       647,367.46       477,298.22       574,417.03         December 2033       634,321.10       463,648.81       557,990.29         January 2034       621,520.57       450,376.86       542,017.82         February 2034       608,961.41       437,472.18       526,487.35         March 2034       596,639.26       424,924.83       511,386.91         April 2034       584,549.81       412,725.13       496,704.87         May 2034       572,688.84       400,863.69       482,429.90         June 2034       561,052.22       389,331.32       468,550.98         July 2034       549,635.88       378,119.12       455,057.37         August 2034       538,435.81       367,218.41       441,938.63         September 2034       527,448.08       356,620.74       429,184.59         October 2034       516,668.84       346,317.89       416,785.35         November 2034       50,094.30       336,301.84       404,731.28         December 2034	June 2033	716,447.97	551,584.50	663,818.77
September 2033         674,215.83         505,771.68         608,684.16           October 2033         660,664.16         491,335.59         591,310.66           November 2033         647,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,057.37           August 2034         538,435.81         367,218.41         441,938.63           September 2034         527,448.08         356,620.74         429,184.59           October 2034         516,668.84         346,317.89         416,785.35           November 2034         506,094.30         336,301.84         404,731.28           December 2034         495,	July 2033	702,102.91	535,884.61	644,924.34
October 2033         660,664.16         491,335.59         591,310.66           November 2033         647,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,057.37           August 2034         549,635.88         378,119.12         455,057.37           August 2034         538,435.81         367,218.41         441,938.63           September 2034         527,448.08         356,620.74         429,184.59           October 2034         516,668.84         346,317.89         416,785.35           November 2034         506,094.30         336,301.84         404,731.28           December 2034         495,720	August 2033	688,027.15	520,617.57	626,550.82
November 2033         647,367.46         477,298.22         574,417.03           December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,057.37           August 2034         538,435.81         367,218.41         441,938.63           September 2034         527,448.08         356,620.74         429,184.59           October 2034         516,668.84         346,317.89         416,785.35           November 2034         506,094.30         336,301.84         404,731.28           December 2034         495,720.73         326,564.81         393,013.00           January 2035         485,544.48         317,099.23         381,621.40           February 2035         475,5	September 2033	674,215.83	505,771.68	608,684.16
December 2033         634,321.10         463,648.81         557,990.29           January 2034         621,520.57         450,376.86         542,017.82           February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,057.37           August 2034         538,435.81         367,218.41         441,938.63           September 2034         527,448.08         356,620.74         429,184.59           October 2034         516,668.84         346,317.89         416,785.35           November 2034         506,094.30         336,301.84         404,731.28           December 2034         495,720.73         326,564.81         393,013.00           January 2035         485,544.48         317,099.23         381,621.40           February 2035         475,561.95         307,897.70         370,547.58           March 2035         465,769.	October 2033	660,664.16	491,335.59	591,310.66
January 2034621,520.57450,376.86542,017.82February 2034608,961.41437,472.18526,487.35March 2034596,639.26424,924.83511,386.91April 2034584,549.81412,725.13496,704.87May 2034572,688.84400,863.69482,429.90June 2034561,052.22389,331.32468,550.98July 2034549,635.88378,119.12455,057.37August 2034538,435.81367,218.41441,938.63September 2034527,448.08356,620.74429,184.59October 2034516,668.84346,317.89416,785.35November 2034506,094.30336,301.84404,731.28December 2034495,720.73326,564.81393,013.00January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035446,741.71281,806.61339,147.57June 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	November 2033	647,367.46	477,298.22	574,417.03
February 2034         608,961.41         437,472.18         526,487.35           March 2034         596,639.26         424,924.83         511,386.91           April 2034         584,549.81         412,725.13         496,704.87           May 2034         572,688.84         400,863.69         482,429.90           June 2034         561,052.22         389,331.32         468,550.98           July 2034         549,635.88         378,119.12         455,057.37           August 2034         538,435.81         367,218.41         441,938.63           September 2034         527,448.08         356,620.74         429,184.59           October 2034         516,668.84         346,317.89         416,785.35           November 2034         506,094.30         336,301.84         404,731.28           December 2034         495,720.73         326,564.81         393,013.00           January 2035         485,544.48         317,099.23         381,621.40           February 2035         475,561.95         307,897.70         370,547.58           March 2035         465,769.61         298,953.05         359,782.91           April 2035         456,164.00         290,258.29         349,318.97           May 2035         446,741.71		634,321.10	463,648.81	557,990.29
March 2034596,639.26424,924.83511,386.91April 2034584,549.81412,725.13496,704.87May 2034572,688.84400,863.69482,429.90June 2034561,052.22389,331.32468,550.98July 2034549,635.88378,119.12455,057.37August 2034538,435.81367,218.41441,938.63September 2034527,448.08356,620.74429,184.59October 2034516,668.84346,317.89416,785.35November 2034506,094.30336,301.84404,731.28December 2034495,720.73326,564.81393,013.00January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	January 2034	621,520.57	450,376.86	542,017.82
April 2034584,549.81412,725.13496,704.87May 2034572,688.84400,863.69482,429.90June 2034561,052.22389,331.32468,550.98July 2034549,635.88378,119.12455,057.37August 2034538,435.81367,218.41441,938.63September 2034527,448.08356,620.74429,184.59October 2034516,668.84346,317.89416,785.35November 2034506,094.30336,301.84404,731.28December 2034495,720.73326,564.81393,013.00January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	•			
May 2034572,688.84400,863.69482,429.90June 2034561,052.22389,331.32468,550.98July 2034549,635.88378,119.12455,057.37August 2034538,435.81367,218.41441,938.63September 2034527,448.08356,620.74429,184.59October 2034516,668.84346,317.89416,785.35November 2034506,094.30336,301.84404,731.28December 2034495,720.73326,564.81393,013.00January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	March 2034			511,386.91
June 2034561,052.22389,331.32468,550.98July 2034549,635.88378,119.12455,057.37August 2034538,435.81367,218.41441,938.63September 2034527,448.08356,620.74429,184.59October 2034516,668.84346,317.89416,785.35November 2034506,094.30336,301.84404,731.28December 2034495,720.73326,564.81393,013.00January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	*	,	,	· · · · · · · · · · · · · · · · · · ·
July 2034549,635.88378,119.12455,057.37August 2034538,435.81367,218.41441,938.63September 2034527,448.08356,620.74429,184.59October 2034516,668.84346,317.89416,785.35November 2034506,094.30336,301.84404,731.28December 2034495,720.73326,564.81393,013.00January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	May 2034	572,688.84	400,863.69	482,429.90
August 2034538,435.81367,218.41441,938.63September 2034527,448.08356,620.74429,184.59October 2034516,668.84346,317.89416,785.35November 2034506,094.30336,301.84404,731.28December 2034495,720.73326,564.81393,013.00January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	June 2034		389,331.32	468,550.98
September 2034       527,448.08       356,620.74       429,184.59         October 2034       516,668.84       346,317.89       416,785.35         November 2034       506,094.30       336,301.84       404,731.28         December 2034       495,720.73       326,564.81       393,013.00         January 2035       485,544.48       317,099.23       381,621.40         February 2035       475,561.95       307,897.70       370,547.58         March 2035       465,769.61       298,953.05       359,782.91         April 2035       456,164.00       290,258.29       349,318.97         May 2035       446,741.71       281,806.61       339,147.57         June 2035       437,499.39       273,591.38       329,260.75	July 2034	549,635.88	378,119.12	455,057.37
October 2034       516,668.84       346,317.89       416,785.35         November 2034       506,094.30       336,301.84       404,731.28         December 2034       495,720.73       326,564.81       393,013.00         January 2035       485,544.48       317,099.23       381,621.40         February 2035       475,561.95       307,897.70       370,547.58         March 2035       465,769.61       298,953.05       359,782.91         April 2035       456,164.00       290,258.29       349,318.97         May 2035       446,741.71       281,806.61       339,147.57         June 2035       437,499.39       273,591.38       329,260.75	August 2034	538,435.81	367,218.41	441,938.63
November 2034       506,094.30       336,301.84       404,731.28         December 2034       495,720.73       326,564.81       393,013.00         January 2035       485,544.48       317,099.23       381,621.40         February 2035       475,561.95       307,897.70       370,547.58         March 2035       465,769.61       298,953.05       359,782.91         April 2035       456,164.00       290,258.29       349,318.97         May 2035       446,741.71       281,806.61       339,147.57         June 2035       437,499.39       273,591.38       329,260.75	September 2034	527,448.08	356,620.74	429,184.59
December 2034       495,720.73       326,564.81       393,013.00         January 2035       485,544.48       317,099.23       381,621.40         February 2035       475,561.95       307,897.70       370,547.58         March 2035       465,769.61       298,953.05       359,782.91         April 2035       456,164.00       290,258.29       349,318.97         May 2035       446,741.71       281,806.61       339,147.57         June 2035       437,499.39       273,591.38       329,260.75	October 2034	516,668.84	346,317.89	416,785.35
January 2035485,544.48317,099.23381,621.40February 2035475,561.95307,897.70370,547.58March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	November 2034	506,094.30	336,301.84	404,731.28
February 2035       475,561.95       307,897.70       370,547.58         March 2035       465,769.61       298,953.05       359,782.91         April 2035       456,164.00       290,258.29       349,318.97         May 2035       446,741.71       281,806.61       339,147.57         June 2035       437,499.39       273,591.38       329,260.75	December 2034	495,720.73	326,564.81	393,013.00
March 2035465,769.61298,953.05359,782.91April 2035456,164.00290,258.29349,318.97May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	January 2035	485,544.48	317,099.23	381,621.40
April 2035       456,164.00       290,258.29       349,318.97         May 2035       446,741.71       281,806.61       339,147.57         June 2035       437,499.39       273,591.38       329,260.75	February 2035	475,561.95	307,897.70	370,547.58
May 2035446,741.71281,806.61339,147.57June 2035437,499.39273,591.38329,260.75	March 2035		298,953.05	359,782.91
June 2035	April 2035			349,318.97
	May 2035	446,741.71	281,806.61	
	June 2035			
July 2035	July 2035	428,433.76	265,606.18	319,650.75

Distribution Date	sses DL and DP the aggregate)	sses PB and PY the aggregate)	sses PC and YP the aggregate)
August 2035	\$ 419,541.60	\$ 257,844.72	\$ 310,310.02
September 2035	410,819.73	250,300.90	301,231.21
October 2035	402,265.03	242,968.77	292,407.18
November 2035	393,874.46	235,842.57	283,830.96
December 2035	385,645.00	228,916.66	275,495.79
January 2036	377,573.70	222,185.56	267,395.08
February 2036	369,657.67	215,643.95	259,522.41
March 2036	361,894.06	209,286.64	251,871.54
April 2036	354,280.07	203,108.58	244,436.39
May 2036	346,812.96	197,104.87	237,211.07
June 2036	339,490.02	191,270.72	230,189.81
July 2036	332,308.61	185,601.48	223,367.02
August 2036	325,266.13	180,092.63	216,737.25
September 2036	318,360.02	174,739.76	210,295.21
October 2036	311,587.76	169,538.60	204,035.73
November 2036	304,946.90	164,484.95	197,953.79
December 2036	298,435.01	159,574.78	192,044.52
January 2037	292,049.72	154,804.13	186,303.15
February 2037	285,788.68	150,169.16	180,725.08
March 2037	279,649.60	145,666.13	175,305.79
April 2037	273,630.24	141,291.40	170,040.90
May 2037	267,728.37	137,041.43	164,926.17
June 2037	261,941.82	132,912.79	159,957.44
July 2037	256,268.46	128,902.11	155,130.69
August 2037	250,706.19	125,006.13	150,441.98
September 2037	245,252.95	121,221.69	145,887.50
October 2037	239,906.73	117,545.70	141,463.53
November 2037	234,665.53	113,975.16	137,166.47
December 2037	229,527.40	110,507.14	132,992.78
January 2038	224,490.44	107,138.79	128,939.07
February 2038	219,552.75	103,867.37	125,001.98
March 2038	214,712.49	100,690.16	121,178.29
April 2038	209,967.86	97,604.57	117,464.85
May 2038	205,317.05	94,608.03	113,858.59
June 2038	200,758.34	91,698.07	110,356.53
July 2038	196,289.99	88,872.28	106,955.76
August 2038	191,910.33	86,128.32	103,653.47
September 2038	187,617.69	83,463.91	100,446.91
October 2038	183,410.45	80,876.82	97,333.41
November 2038	179,287.02	78,364.89	94,310.37
December 2038	175,245.81	75,926.04	91,375.26
January 2039	171,285.30	73,558.20	88,525.63
February 2039	167,403.97	71,259.41	85,759.09
March 2039	163,600.33	69,027.71	83,073.30
April 2039	159,872.93	66,861.24	80,466.00
May 2039	156,220.33	64,758.16	77,935.00
June 2039	152,641.12	62,716.70	75,478.15
July 2039	149,133.94	60,735.12	73,093.37

Distribution Date	es DL and DP ne aggregate)	es PB and PY ne aggregate)	es PC and YP ne aggregate)
August 2039	\$ 145,697.41	\$ 58,811.75	\$ 70,778.63
September 2039	142,330.22	56,944.93	68,531.96
October 2039	139,031.04	55,133.09	66,351.45
November 2039	135,798.60	53,374.67	64,235.23
December 2039	132,631.65	51,668.16	62,181.50
January 2040	129,528.93	50,012.11	60,188.47
February 2040	126,489.23	48,405.08	58,254.45
March 2040	123,511.37	46,845.69	56,377.76
April 2040	120,594.17	45,332.59	54,556.79
May 2040	117,736.48	43,864.47	52,789.94
June 2040	114,937.17	42,440.06	51,075.70
July 2040	112,195.13	41,058.12	49,412.56
August 2040	109,509.28	39,717.43	47,799.08
September 2040	106,878.55	38,416.84	46,233.84
October 2040	104,301.88	37,155.19	44,715.48
November 2040	101,778.25	35,931.38	43,242.65
December 2040	99,306.64	34,744.33	41,814.07
January 2041	96,886.06	33,592.99	40,428.46
February 2041	94,515.54	32,476.35	39,084.61
March 2041	92,194.12	31,393.40	37,781.31
April 2041	89,920.87	30,343.20	36,517.41
May 2041	87,694.85	29,324.79	35,291.78
June 2041	85,515.16	28,337.27	34,103.33
July 2041	83,380.92	27,379.76	32,950.98
August 2041	81,291.25	26,451.38	31,833.71
September 2041	79,245.30	25,551.31	30,750.49
October 2041	77,242.22	24,678.73	29,700.36
November 2041	75,281.19	23,832.84	28,682.36
December 2041	73,361.40	23,012.88	27,695.55
January 2042	71,482.05	22,218.10	26,739.06
February 2042	69,642.36	21,447.77	25,811.98
March 2042	67,841.56	20,701.19	24,913.48
April 2042	66,078.91	19,977.66	24,042.73
May 2042	64,353.67	19,276.51	23,198.93
June 2042	62,665.10	18,597.11	22,381.28
July 2042	61,012.50	17,938.81	21,589.03
August 2042	59,395.17	17,301.01	20,821.45
September 2042	57,812.43	16,683.10	20,077.81
October 2042	56,263.59	16,084.50	19,357.41
November 2042	54,748.01	15,504.66	18,659.59
December 2042	53,265.02	14,943.01	17,983.66
January 2043	51,814.00	14,399.04	17,329.01
February 2043	50,394.32	13,872.23	16,694.99
March 2043	49,005.37	13,362.06	16,081.02
April 2043	47,646.55	12,868.05	15,486.49
May 2043	46,317.26	12,389.72	14,910.84
June 2043	45,016.93	11,926.62	14,353.51
July 2043	43,744.98	11,478.30	13,813.96

Distribution Date	Classes DL and DI (in the aggregate)		Classes PC and YP (in the aggregate)
August 2043	\$ 42,500.86	\$ 11,044.31	\$ 13,291.67
September 2043	41,284.03	10,624.24	12,786.12
October 2043	40,093.94	10,217.66	12,296.82
November 2043	38,930.06	9,824.19	11,823.28
December 2043	37,791.88		11,365.05
January 2044	36,678.89	9,075.01	10,921.66
February 2044	35,590.59	8,718.55	10,492.68
March 2044	34,526.49	8,373.71	10,077.66
April 2044	33,486.11	8,040.13	9,676.20
May 2044	32,468.98	7,717.47	9,287.90
June 2044	31,474.64	7,405.42	8,912.35
July 2044	30,502.63	7,103.64	8,549.17
August 2044	29,552.51	6,811.84	8,198.00
September 2044	28,623.84	6,529.72	7,858.46
October 2044	27,716.19	6,256.97	7,530.22
November 2044	26,829.14	5,993.32	7,212.92
December 2044	25,962.28	5,738.50	6,906.25
January 2045	25,115.21		6,609.87
February 2045	24,287.52	5,254.25	6,323.47
March 2045	23,478.82	5,024.32	6,046.76
April 2045	22,688.74	4,802.19	5,779.43
May 2045	21,916.89	4,587.63	5,521.20
June 2045	21,162.92	4,380.39	5,271.80
July 2045	20,426.45	4,180.26	5,030.94
August 2045	19,707.13	3,987.01	4,798.38
September 2045	19,004.62	3,800.44	4,573.85
October 2045	18,318.57	3,620.35	4,357.11
November 2045	17,648.65	3,446.53	4,147.92
December 2045	16,994.53	3,278.78	3,946.04
January 2046	16,355.89	3,116.92	3,751.25
February 2046	15,732.41	2,960.77	3,563.33
March 2046	15,123.78	2,810.16	3,382.06
April 2046	14,529.70	2,664.89	3,207.24
May 2046	13,949.87	2,524.82	3,038.67
June 2046	13,383.99	2,389.78	2,876.15
July 2046	12,831.78	2,259.61	2,719.49
August 2046	12,292.96	2,134.16	2,568.51
September 2046	11,767.25	2,013.27	2,423.03
October 2046	11,254.37	1,896.81	2,282.87
November 2046	10,754.07		2,147.88
December 2046	10,266.08	1,676.61	2,017.87
January 2047	9,790.15	1,572.61	1,892.70
February 2047	9,326.03	1,472.49	1,772.21
March 2047	8,873.46	1,376.14	1,656.26
April 2047	8,432.21	1,283.43	1,544.69
May 2047	8,002.05	1,194.26	1,437.36
June 2047	7,582.73		1,334.15
July 2047	7,174.03	1,026.04	1,234.91

Distribution Date	Classes DL and DP (in the aggregate)	Classes PB and PY (in the aggregate)	Classes PC and YP (in the aggregate)
August 2047	\$ 6,775.73	\$ 946.78	\$ 1,139.53
September 2047	6,387.61	870.61	1,047.86
October 2047	6,009.46	797.44	959.80
November 2047	5,641.05	727.16	875.23
December 2047	5,282.20	659.69	794.03
January 2048	4,932.69	594.93	716.08
February 2048	4,592.32	532.78	641.30
March 2048	4,260.91	473.17	569.56
April 2048	3,938.25	416.02	500.77
May 2048	3,624.17	361.23	434.83
June 2048	3,318.47	308.73	371.65
July 2048	3,020.99	258.45	311.14
August 2048	2,731.54	210.30	253.20
September 2048	2,449.94	164.23	197.75
October 2048	2,176.04	120.15	144.70
November 2048	1,909.65	78.00	93.98
December 2048	1,650.63	37.72	45.50
January 2049	1,398.81	0.00	0.00
February 2049	1,154.03	0.00	0.00
March 2049	916.14	0.00	0.00
April 2049	684.99	0.00	0.00
May 2049	460.43	0.00	0.00
June 2049	242.31	0.00	0.00
July 2049	30.50	0.00	0.00
August 2049 and thereafter	0.00	0.00	0.00

Distribution Date	Classes GA and GL (in the aggregate)	Classes CA, CF and CY (in the aggregate)	Classes NA and NY (in the aggregate)
Initial Balance	\$22,910,502.00	\$163,058,079.00	\$31,593,000.00
December 2019	22,820,194.86	162,062,192.92	31,477,532.50
January 2020	22,718,588.95	160,982,257.41	31,346,934.59
February 2020	22,605,748.37	159,819,186.45	31,201,294.70
March 2020	22,481,750.31	158,574,012.30	31,040,720.68
April 2020	22,346,684.97	157,247,884.19	30,865,339.71
May 2020	22,200,655.48	155,842,066.78	30,675,298.25
June 2020	22,043,777.86	154,357,938.31	30,470,761.85
July 2020	21,876,180.83	152,796,988.47	30,251,914.95
August 2020	21,698,005.70	151,160,816.02	30,018,960.72
September 2020	21,509,406.19	149,451,126.11	29,772,120.70
October 2020	21,310,548.23	147,669,727.34	29,511,634.56
November 2020	21,101,609.74	145,818,528.62	29,237,759.73
December 2020	20,882,780.40	143,899,535.66	28,950,770.99
January 2021	20,654,261.34	141,914,847.36	28,650,960.05
February 2021	20,416,264.90	139,866,651.82	28,338,635.10
March 2021	20,169,014.26	137,757,222.24	28,014,120.26
April 2021	19,912,743.15	135,588,912.56	27,677,755.08
May 2021	19,647,695.45	133,364,152.86	27,329,893.96
June 2021	19,374,124.86	131,085,444.64	26,970,905.51
July 2021	19,092,294.43	128,755,355.88	26,601,171.91
August 2021	18,802,476.20	126,376,515.89	26,221,088.25
September 2021	18,504,950.76	123,951,610.13	25,831,061.84
October 2021	18,200,006.73	121,483,374.76	25,431,511.42
November 2021	17,887,940.37	119,052,258.04	25,022,866.47
December 2021	17,569,055.05	116,657,681.18	24,605,566.36
January 2022	17,243,660.76	114,299,074.17	24,184,084.41
February 2022	16,922,415.39	111,975,875.69	23,758,714.38
March 2022	16,605,267.30	109,687,532.91	23,339,462.10
April 2022	16,292,165.45	107,433,501.43	22,926,241.50
May 2022	15,983,059.47	105,213,245.10	22,518,967.71
June 2022	15,677,899.56	103,026,235.95	22,117,557.02
July 2022	15,376,636.58	100,871,954.01	21,721,926.90
August 2022	15,079,221.95	98,749,887.22	21,331,995.96
September 2022	14,785,607.72	96,659,531.31	20,947,683.93
October 2022	14,495,746.50	94,600,389.67	20,568,911.67
November 2022	14,209,591.51	92,571,973.23	20,195,601.13
December 2022	13,927,096.53	90,573,800.39	19,827,675.35
January 2023	13,648,215.91	88,605,396.85	19,465,058.41
February 2023	13,372,904.56	86,666,295.51	19,107,675.49
	13,101,117.96	84,756,036.41	18,755,452.77
March 2023	12,832,812.10	82,874,166.56	18,408,317.49
April 2023	12,567,943.55		18,066,197.86
May 2023		81,020,239.86	
June 2023	12,306,469.39	79,193,817.01	17,729,023.13
July 2023	12,048,347.24	77,394,465.39	17,396,723.49
August 2023	11,793,535.25	75,621,758.96	17,069,230.15
September 2023	11,541,992.05	73,875,278.15	16,746,475.23

Distribution Date	Classes GA and GL (in the aggregate)	Classes CA, CF and CY (in the aggregate)	Classes NA and NY (in the aggregate)
October 2023	\$11,293,676.82	\$ 72,154,609.81	\$16,428,391.82
November 2023	11,048,549.21	70,459,347.03	16,114,913.93
December 2023	10,806,569.39	68,789,089.13	15,805,976.50
January 2024	10,567,698.01	67,143,441.51	15,501,515.36
February 2024	10,331,896.20	65,522,015.58	15,201,467.23
March 2024	10,099,125.57	63,933,074.39	14,905,769.74
April 2024	9,869,348.22	62,382,051.49	14,614,361.35
May 2024	9,642,526.68	60,868,052.60	14,327,181.40
June 2024	9,418,623.99	59,390,204.38	14,044,170.06
July 2024	9,197,603.60	57,947,653.88	13,765,268.36
August 2024	8,979,429.43	56,539,568.11	13,490,418.11
September 2024	8,764,065.85	55,165,133.56	13,219,561.96
October 2024	8,551,477.66	53,823,555.74	12,952,643.36
November 2024	8,341,630.10	52,514,058.76	12,689,606.52
December 2024	8,134,488.83	51,235,884.86	12,430,396.46
January 2025	7,930,019.94	49,988,294.05	12,174,958.95
February 2025	7,728,189.94	48,770,563.63	11,923,240.51
March 2025	7,528,965.74	47,581,987.83	11,675,188.43
April 2025	7,334,332.22	46,421,877.41	11,430,750.69
May 2025	7,144,656.93	45,289,559.26	11,189,876.05
June 2025	6,959,814.92	44,184,376.05	10,952,513.94
July 2025	6,779,684.35	43,105,685.83	10,719,522.75
August 2025	6,604,146.47	42,052,861.70	10,491,373.68
September 2025	6,433,085.45	41,025,291.46	10,267,967.72
October 2025	6,266,388.38	40,022,377.25	10,049,207.86
November 2025	6,103,945.18	39,043,535.23	9,834,999.05
December 2025	5,945,648.52	38,088,195.24	9,625,248.16
January 2026	5,791,393.73	37,155,800.51	9,419,863.95
February 2026	5,641,078.80	36,245,807.30	9,218,757.02
March 2026	5,494,604.25	35,357,684.66	9,021,839.78
April 2026	5,351,873.09	34,490,914.07	8,829,026.40
May 2026	5,212,790.75	33,644,989.20	8,640,232.81
June 2026	5,077,265.06	32,819,415.59	8,455,376.62
July 2026	4,945,206.12	32,013,710.40	8,274,377.12
August 2026	4,816,526.31	31,227,402.11	8,097,155.23
September 2026	4,691,140.18	30,460,030.30	7,923,633.47
October 2026	4,568,964.46	29,711,145.34	7,753,735.95
November 2026	4,449,917.92	28,980,308.19	7,587,388.27
December 2026	4,333,921.39	28,267,090.09	7,424,517.59
January 2027	4,220,897.70	27,571,072.40	7,265,052.51
February 2027	4,110,771.58	26,891,846.30	7,108,923.09
March 2027	4,003,469.68	26,229,012.57	6,956,060.81
April 2027	3,898,920.47	25,582,181.41	6,806,398.55
May 2027	3,797,054.22	24,950,972.17	6,659,870.52
June 2027	3,697,802.94	24,335,013.14	6,516,412.29
July 2027	3,601,100.38	23,733,941.39	6,375,960.74
August 2027	3,506,881.91	23,147,402.52	6,238,454.00
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September 2027         \$ 3,415,084.55         \$ 2,275,050.46         \$ 6,108,831.50           October 2027         3,325,646.89         22,016,547.30         5,972,033.87           November 2027         3,238,509.07         21,471,563.09         5,972,033.87           January 2028         3,070,900.97         20,420,870.37         5,593,014.48           February 2028         2,290,318.34         19,914,540.09         5,471,946.43           March 2028         2,291,810.75         19,420,484.88         5,353,424.05           April 2028         2,885,325.51         18,938.411.85         5,237,948.83           May 2028         2,760,811.22         18,668,035.06         5,123,807.38           July 2028         2,618,769.41         17,561,259.81         490,775.27           August 2028         2,618,599.44         17,561,259.81         490,777.28           July 2028         2,618,599.44         17,561,259.81         4,692,882.93           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           November 2028         2,481,480.50         11,698,003.76         4,692,882.93           November 2028         2,248,740.91         15,480,	Distribution Date	Classes GA and GL (in the aggregate)	Classes CA, CF and CY (in the aggregate)	Classes NA and NY (in the aggregate)
November 2027         3,238,509.07         21,471,563.09         5,843,002.94           December 2027         3,153,612.73         20,939,775.64         5,716,681.75           January 2028         3,070,900.97         20,420,870.37         5,593,014.48           February 2028         2,990,318.34         19,914,540.09         5,471,946.43           March 2028         2,911,810.75         19,420,448.48         5,353,424.05           April 2028         2,885,325.51         18,938,411.85         5,237,394.83           May 2028         2,760,811.22         18,468,035.06         5,123,807.38           June 2028         2,688,217.80         18,009,075.28         5,012,611.31           July 2028         2,617,496.41         17,561,259.89         4,903,757.27           August 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,253,896.66         15,876,211.61         4,490,809.29           December 2028         2,259,897.10         15,093,924.27         4,297,176.41           February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,131,660.13         14,349,274.03 </td <td>September 2027</td> <td>\$ 3,415,084.55</td> <td>\$ 22,575,050.46</td> <td>\$ 6,103,831.50</td>	September 2027	\$ 3,415,084.55	\$ 22,575,050.46	\$ 6,103,831.50
December 2027   3,153,612.73   20,939,775.64   5,716,681.75   January 2028   3,070.900.97   20,420,870.37   5,593,611.48   February 2028   2,990,318.34   19,914,540.09   5,471,946.43   March 2028   2,911,810.75   19,420,484.88   5,353,424.05   April 2028   2,835,325.51   18,938,411.85   5,237,394.83   May 2028   2,688,217.80   18,009,075.28   5,102,611.31   July 2028   2,617,496.41   17,561,259.89   4,903,757.27   August 2028   2,548,599.44   17,124,322.69   4,797,196.93   4,797,	October 2027	3,325,646.89	22,016,547.30	5,972,033.87
January 2028	November 2027	3,238,509.07	21,471,563.09	5,843,002.94
February 2028         2,990,318,34         19,914,540.09         5,471,946.43           March 2028         2,911,810.75         19,420,484.88         5,353,424.05           April 2028         2,835,325.51         18,938,411.85         2,337,348.3           May 2028         2,760,811.22         18,609,075.28         5,123,807.38           June 2028         2,688,217.80         18,009,075.28         5,102,611.31           July 2028         2,617,496.41         17,561,259.89         4,093,757.27           August 2028         2,548,599.44         17,124,322.69         4,797,196.95           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,481,480.50         16,698,003.76         4,692,882.93           November 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,290,345.09         15,480,248.66         4,392,599.68           November 2029         2,171,102.06         14,717,007.79         4,203,416.76           March 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,103,341.36         13,640,480.41         3,933,865.15           Jure 2029         1,590,319.78         13,298,996.30	December 2027	3,153,612.73	20,939,775.64	5,716,681.75
February 2028         2,990,318.34         19,914,540.09         5,471,946.43           March 2028         2,911,810.75         19,420,484.88         5,353,424.05           April 2028         2,835,325.51         18,938,411.85         5,237,394.83           May 2028         2,760,811.22         18,468,035.06         5,123,807.38           June 2028         2,688,217.80         18,009,075.28         5,012,611.31           July 2028         2,617,496.41         17,561.25,98         4,903,757.27           August 2028         2,548,599.44         17,124,322.69         4,797,196.93           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,481,480.50         16,598,003.76         4,692,882.93           November 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,290,345.09         15,480,248.66         4,392,595.68           November 2029         2,171,101.06         14,717,007.79         4,203,416.76           March 2029         2,171,101.06         14,717,007.79         4,203,416.76           March 2029         2,175,613.13         13,492,740.8         4,111,638.87           April 2029         2,033,41.36         13,460,480.41	January 2028	3,070,900.97	20,420,870.37	5,593,014.48
March 2028         2,911,810,75         19,420,484.88         5,353,424.05           April 2028         2,855,325.51         18,938,411.85         5,237,394.83           May 2028         2,760,811.22         18,468,035.06         5,212,807,384           June 2028         2,688,217.80         18,009,075.28         5,012,611.31           July 2028         2,548,599.44         17,124,322.69         4,903,757.27           August 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,416,094.34         16,282,049.33         4,590,768.87           November 2028         2,352,396.86         15,876,211.61         4,409,809.29           December 2028         2,290,345.09         15,480,248.66         4,392,959.68           January 2029         2,229,897.10         15,093,924.27         4,297,176.41           February 2029         2,171,012.06         14,717,007.79         4,271,764.1           February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,033,413.6         13,640,480.41         4,211,403,401.72           May 2029         2,003,413.6         13,640,480.41         3,938,651.55           July 2029         1,888,671.83         12,955,846.15	•			5,471,946.43
May 2028         2,760,811.22         18,468,035.06         5,123,807.38           June 2028         2,688,217.80         18,009,075.28         5,112,611.31           July 2028         2,617,496.41         17,561.259.89         4,903,757.27           August 2028         2,548,599.44         17,124,322.69         4,797,196.93           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,355,396.86         15,876,211.61         4,490,809.29           December 2028         2,250,345.09         15,480,248.66         4,392,959.68           January 2029         2,271,1012.06         14,717,007.79         4,207,416.76           March 2029         2,171,1012.06         14,717,007.79         4,207,416.76           March 2029         2,075,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,590,319.78         13,298,996.30         3,847,898.81           July 2029         1,888,671.83         12,296,846.15         3,763,537.14           August 2029         1,898,671.83         12,296,846.15         3,763,537.14           August 2029         1,795,128.48         11,712,269.56	March 2028	2,911,810.75	19,420,484.88	5,353,424.05
May 2028         2,760,811.22         18,468,035.06         5,123,807.38           June 2028         2,688,217.80         18,009,075.28         5,123,807.38           July 2028         2,617,496.41         17,561,259.89         4,903,757.27           August 2028         2,548,599.44         17,124,322.69         4,797,196.93           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,229,897.10         15,093,924.27         4,297,176.41           February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,171,012.06         14,717,007.79         4,203,416.76           Mary 2029         2,075,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           July 2029         1,898,671.83         12,296,846.15         3,763,537.14           August 2029         1,898,671.83         12,296,5846.15         3,763,537.14           August 2030         1,751,623.66         12,014,425.06	April 2028	2,835,325.51	18,938,411.85	5,237,394.83
July 2028         2,617,496.41         17,561,259.89         4,903,757.27           August 2028         2,548,599.44         17,124,322.69         4,797,196.93           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,416,094,34         16,282,049.33         4,590,768.87           November 2028         2,352,396.86         15,876,211.61         4,490.809.29           December 2028         2,229,897.10         15,093,924.27         4,297,176.41           February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,033,341.36         13,604,480.41         3,933,865.15           June 2029         2,033,341.36         13,604,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,848,362.46         12,604.83.16         3,604,694.09           September 2029         1,848,362.46         12,604.83.16         3,600,349.57           October 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         11,418,752.33<	May 2028	2,760,811.22	18,468,035.06	5,123,807.38
August 2028         2,548,599.44         17,124,322.69         4,797,196.93           September 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,416,094.34         16,282,049.33         4,590,768.87           November 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,290,345.09         15,480,248.66         4,392,959.68           January 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,966.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,751,623,66         12,014,425.06         3,521,341.43           November 2029         1,751,623,66         12,014,425.06         3,521,341.43           November 2029         1,751,623,66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         11,418	June 2028	2,688,217.80	18,009,075.28	5,012,611.31
September 2028         2,481,480.50         16,698,003.76         4,692,882.93           October 2028         2,416,094,34         16,282,049.33         4,590,768.87           November 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,290,345.09         15,480,248.66         4,592,959.68           January 2029         2,229,897.10         15,093,924.27         4,297,176.41           February 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,13,650.13         14,349,274.03         4,111,638.87           April 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,033,341.36         13,640,480.41         3,933,865.15           June 2029         1,898,671.83         12,965,861.5         3,763,557.14           August 2029         1,898,671.83         12,964,830.16         3,681,069.40           September 2029         1,781,623.66         12,640,830.16         3,681,069.40           September 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,572,762.39         10,859,	July 2028	2,617,496.41	17,561,259.89	4,903,757.27
October 2028         2,416,094.34         16,282,049.33         4,590,768.87           November 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,290,345.09         15,480,248.66         4,392,959.68           January 2029         2,229,897.10         15,093,924.27         4,297,176.41           February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,888,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,600,349.75           October 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         1,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,311,048.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.	August 2028	2,548,599.44	17,124,322.69	4,797,196.93
November 2028         2,352,396.86         15,876,211.61         4,490,809.29           December 2028         2,290,345.09         15,480,248.66         4,392,959.68           January 2029         2,229,897.10         15,093,924.27         4,297,176.41           February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,799,357.51         12,323,753.28         3,600,349.57           October 2029         1,751,623.66         12,614,825.06         3,521,341.43           November 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         11,418,275.23 </td <td>September 2028</td> <td>2,481,480.50</td> <td>16,698,003.76</td> <td>4,692,882.93</td>	September 2028	2,481,480.50	16,698,003.76	4,692,882.93
December 2028         2,290,345.09         15,480,248.66         4,392,959.68           January 2029         2,229,897.10         15,093,924.27         4,297,176.41           February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,113,656.13         14,349,274.03         4,111,638.87           April 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,848,362.46         12,660,830.16         3,681,069.40           September 2029         1,799,357.51         12,323,753.28         3,600,349.57           October 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         11,418,275.23         3,568,318.94           January 2030         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,449,152.44         10,311,067.42 </td <td>October 2028</td> <td>2,416,094.34</td> <td>16,282,049.33</td> <td>4,590,768.87</td>	October 2028	2,416,094.34	16,282,049.33	4,590,768.87
January 2029   2,229,897.10   15,093,924.27   4,297,176.41     February 2029   2,171,012.06   14,717,007.79   4,203,416.76     March 2029   2,113,650.13   14,349,274.03   4,111,638.87     April 2029   2,057,772.51   13,990,503.13   4,021,801.72     May 2029   2,003,341.36   13,640,480.41   3,933,865.15     June 2029   1,950,319.78   13,298,996.30   3,847,789.81     July 2029   1,898,671.83   12,965,846.15   3,763,537.14     August 2029   1,848,362.46   12,640,830.16   3,681,069.40     September 2029   1,795,157.51   12,323,753.28   3,600,349.57     October 2029   1,751,623.66   12,014,425.06   3,521,414.34     November 2029   1,705,128.48   11,712,659.56   3,444,009.48     December 2029   1,659,840.30   11,418,275.23   3,368,318.94     January 2030   1,615,728.29   11,131,094.85   3,224,225.76     March 2030   1,530,913.30   10,577,657.88   3,150,758.66     April 2030   1,490,152.44   10,311,067.42   3,081,300.05     May 2030   1,417,847.99   9,797,337.36   2,946,785.86     April 2030   1,337,445.05   9,308,512.30   2,817,940.72     September 2030   1,337,445.05   9,308,512.30   2,817,940.72     September 2030   1,266,929.53   8,843,407.65   2,755,570.71     October 2030   1,230,447.3   8,400,894.38   2,576,333.28     January 2030   1,266,929.53   8,843,407.65   2,634,794.41     November 2030   1,230,440.73   8,400,894.38   2,576,333.28     January 2031   1,167,906.05   8,187,771.25   2,519,121.19     February 2031   1,136,606.83   7,979,896.45   2,463,132.11     March 2031   1,106,125.54   7,777,143,36   2,408,340.53     June 2031   1,106,125.54   7,777,143,36   2,408,340.53     June 2031   1,007,441.18   7,579,388.36   2,354,721.49     May 2031   1,047,533.28   7,386,510.77   2,302,250.50     June 2031   1,019,381.88   7,198,392.79   2,250,903.61	November 2028	2,352,396.86	15,876,211.61	4,490,809.29
February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,311,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,21,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 20301,414,744.09         9,797,337.36	December 2028	2,290,345.09	15,480,248.66	4,392,959.68
February 2029         2,171,012.06         14,717,007.79         4,203,416.76           March 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,31,094.85         3,294,235.76           Berbruary 2030         1,572,762.39         10,850,945.38         3,21,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 20301,414,744.09         9,49,887.08	January 2029	2,229,897.10	15,093,924.27	4,297,176.41
March 2029         2,113,650.13         14,349,274.03         4,111,638.87           April 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           July 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,751,623.66         12,014,250.6         3,521,341.43           November 2029         1,705,128.48         11,712,659.56         3,444,009.48           December 2029         1,705,128.48         11,712,659.56         3,444,009.48           December 2029         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,450,451.99         10,051,012.98         3,013,319.36           June 2030         1,450,451.99         10,051,012.98	•		14,717,007.79	4,203,416.76
April 2029         2,057,772.51         13,990,503.13         4,021,801.72           May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,705,128.48         11,712,659.56         3,444,009.48           December 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,131,094.85         3,224,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,454,451.99         10,051,012.98         3,013,319.36           June 2030         1,374,124.40         9,549,887.08         2,881,669.48           August 2030         1,374,124.40         9,549,887.08	•	, ,		
May 2029         2,003,341.36         13,640,480.41         3,933,865.15           June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,799,357.51         12,323,753.28         3,600,349.57           October 2029         1,751,623,66         12,014,425.06         3,521,341.43           November 2029         1,755,128.48         11,712,659.56         3,444,009.48           December 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           June 2030         1,417,847.9         9,797,337.36         2,946,785.86           July 2030         1,374,124.40         9,549,887.08				
June 2029         1,950,319.78         13,298,996.30         3,847,789.81           July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,799,357.51         12,323,753.28         3,600,349.57           October 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,765,128.48         11,712,659.56         3,444,009.48           December 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           July 2030         1,374,124.40         9,549,887.08         2,881,669.48           August 2030         1,337,445.05         9,308,512.30         2,817,940.72           September 2030         1,266,929.53         8,843,407.65	*			
July 2029         1,898,671.83         12,965,846.15         3,763,537.14           August 2029         1,848,362.46         12,640,830.16         3,681,069.40           September 2029         1,799,357.51         12,323,753.28         3,600,349.57           October 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,705,128.48         11,712,659.56         3,444,009.48           December 2029         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           July 2030         1,317,412.40         9,549,887.08         2,881,669.48           August 2030         1,337,412.40         9,549,887.08         2,881,669.48           August 2030         1,337,415.05         9,308,512.30         2,817,940.72           September 2030         1,337,445.05         9,308,512.30         2,817,940.72           September 2030         1,266,929.53         8,843,407.65 <td>·</td> <td>, ,</td> <td>13,298,996.30</td> <td>, , , , , , , , , , , , , , , , , , ,</td>	·	, ,	13,298,996.30	, , , , , , , , , , , , , , , , , , ,
August 2029       1,848,362.46       12,640,830.16       3,681,069.40         September 2029       1,799,357.51       12,323,753.28       3,600,349.57         October 2029       1,751,623.66       12,014,425.06       3,521,341.43         November 2029       1,705,128.48       11,712,659.56       3,444,009.48         December 2029       1,659,840.30       11,418,275.23       3,368,318.94         January 2030       1,615,728.29       11,131,094.85       3,294,235.76         February 2030       1,572,762.39       10,850,945.38       3,221,726.56         March 2030       1,530,913.30       10,577,657.88       3,150,758.66         April 2030       1,490,152.44       10,311,067.42       3,081,300.05         May 2030       1,450,451.99       10,051,012.98       3,013,319.36         June 2030       1,411,784.79       9,797,337.36       2,946,785.86         July 2030       1,374,124.40       9,549,887.08       2,881,669.48         August 2030       1,337,445.05       9,308,512.30       2,817,940.72         September 2030       1,301,721.59       9,073,066.76       2,755,570.71         October 2030       1,266,929.53       8,843,407.65       2,694,531.18         November 2030       1,230,044.73	•	, ,	, ,	
September 2029         1,799,357.51         12,323,753.28         3,600,349.57           October 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,705,128.48         11,712,659.56         3,444,009.48           December 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,31,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           June 2030         1,411,784.79         9,797,337.36         2,946,785.86           July 2030         1,374,124.40         9,549,887.08         2,881,669.48           August 2030         1,337,445.05         9,308,512.30         2,817,940.72           September 2030         1,301,721.59         9,073,066.76         2,755,570.71           October 2030         1,266,929.53         8,843,407.65         2,694,531.18           November 2030         1,233,045.00         8,619,395.56 <td>•</td> <td></td> <td>, , , , , , , , , , , , , , , , , , ,</td> <td>, , , , , , , , , , , , , , , , , , ,</td>	•		, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , ,
October 2029         1,751,623.66         12,014,425.06         3,521,341.43           November 2029         1,705,128.48         11,712,659.56         3,444,009.48           December 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           June 2030         1,411,784.79         9,797,337.36         2,946,785.86           July 2030         1,374,124.40         9,549,887.08         2,881,669.48           August 2030         1,337,415.05         9,308,512.30         2,817,940.72           September 2030         1,301,721.59         9,073,066.76         2,755,70.71           October 2030         1,266,929.53         8,843,407.65         2,694,531.18           November 2030         1,233,045.00         8,619,395.56         2,634,794.41           December 2030         1,230,044.73         8,400,894.38				, ,
November 2029         1,705,128.48         11,712,659.56         3,444,009.48           December 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           June 2030         1,411,784.79         9,797,337.36         2,946,785.86           July 2030         1,374,124.40         9,549,887.08         2,881,669.48           August 2030         1,337,445.05         9,308,512.30         2,817,940.72           September 2030         1,301,721.59         9,073,066.76         2,755,570.71           October 2030         1,266,929.53         8,843,407.65         2,694,531.18           November 2030         1,233,045.00         8,619,395.56         2,634,794.41           December 2030         1,200,044.73         8,400,894.38         2,576,333.28           January 2031         1,166,068.8         7,979,896.45	*			, ,
December 2029         1,659,840.30         11,418,275.23         3,368,318.94           January 2030         1,615,728.29         11,131,094.85         3,294,235.76           February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           June 2030         1,411,784.79         9,797,337.36         2,946,785.86           July 2030         1,374,124.40         9,549,887.08         2,881,669.48           August 2030         1,337,445.05         9,308,512.30         2,817,940.72           September 2030         1,301,721.59         9,073,066.76         2,755,570.71           October 2030         1,266,929.53         8,843,407.65         2,694,531.18           November 2030         1,233,045.00         8,619,395.56         2,634,794.41           December 2030         1,200,044.73         8,400,894.38         2,576,333.28           January 2031         1,167,906.05         8,187,771.25         2,519,121.19           February 2031         1,136,606.83         7,979,896.45				
January 20301,615,728.2911,131,094.853,294,235.76February 20301,572,762.3910,850,945.383,221,726.56March 20301,530,913.3010,577,657.883,150,758.66April 20301,490,152.4410,311,067.423,081,300.05May 20301,450,451.9910,051,012.983,013,319.36June 20301,411,784.799,797,337.362,946,785.86July 20301,374,124.409,549,887.082,881,669.48August 20301,337,445.059,308,512.302,817,940.72September 20301,301,721.599,073,066.762,755,570.71October 20301,266,929.538,843,407.652,694,531.18November 20301,233,045.008,619,395.562,634,794.41December 20301,200,044.738,400,894.382,576,333.28January 20311,167,906.058,187,771.252,519,121.19February 20311,136,606.837,979,896.452,463,132.11March 20311,106,125.547,777,143.362,408,340.53April 20311,076,441.187,579,388.362,354,721.49May 20311,047,533.287,386,510.772,302,250.50June 20311,047,533.287,386,510.772,302,250.50June 20311,019,381.887,198,392.792,250,903.61	December 2029			
February 2030         1,572,762.39         10,850,945.38         3,221,726.56           March 2030         1,530,913.30         10,577,657.88         3,150,758.66           April 2030         1,490,152.44         10,311,067.42         3,081,300.05           May 2030         1,450,451.99         10,051,012.98         3,013,319.36           June 2030         1,411,784.79         9,797,337.36         2,946,785.86           July 2030         1,374,124.40         9,549,887.08         2,881,669.48           August 2030         1,337,445.05         9,308,512.30         2,817,940.72           September 2030         1,301,721.59         9,073,066.76         2,755,570.71           October 2030         1,266,929.53         8,843,407.65         2,694,531.18           November 2030         1,233,045.00         8,619,395.56         2,634,794.41           December 2030         1,200,044.73         8,400,894.38         2,576,333.28           January 2031         1,167,906.05         8,187,771.25         2,519,121.19           February 2031         1,136,606.83         7,979,896.45         2,463,132.11           March 2031         1,106,125.54         7,777,143.36         2,408,340.53           April 2031         1,047,533.28         7,386,510.77	January 2030			
March 20301,530,913.3010,577,657.883,150,758.66April 20301,490,152.4410,311,067.423,081,300.05May 20301,450,451.9910,051,012.983,013,319.36June 20301,411,784.799,797,337.362,946,785.86July 20301,374,124.409,549,887.082,881,669.48August 20301,337,445.059,308,512.302,817,940.72September 20301,301,721.599,073,066.762,755,570.71October 20301,266,929.538,843,407.652,694,531.18November 20301,233,045.008,619,395.562,634,794.41December 20301,200,044.738,400,894.382,576,333.28January 20311,167,906.058,187,771.252,519,121.19February 20311,136,606.837,979,896.452,463,132.11March 20311,106,125.547,777,143.362,408,340.53April 20311,076,441.187,579,388.362,354,721.49May 20311,047,533.287,386,510.772,302,250.50June 20311,019,381.887,198,392.792,250,903.61	•			
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August 20301,337,445.059,308,512.302,817,940.72September 20301,301,721.599,073,066.762,755,570.71October 20301,266,929.538,843,407.652,694,531.18November 20301,233,045.008,619,395.562,634,794.41December 20301,200,044.738,400,894.382,576,333.28January 20311,167,906.058,187,771.252,519,121.19February 20311,136,606.837,979,896.452,463,132.11March 20311,106,125.547,777,143.362,408,340.53April 20311,076,441.187,579,388.362,354,721.49May 20311,047,533.287,386,510.772,302,250.50June 20311,019,381.887,198,392.792,250,903.61	July 2030		9,549,887.08	
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October 2030       1,266,929.53       8,843,407.65       2,694,531.18         November 2030       1,233,045.00       8,619,395.56       2,634,794.41         December 2030       1,200,044.73       8,400,894.38       2,576,333.28         January 2031       1,167,906.05       8,187,771.25       2,519,121.19         February 2031       1,136,606.83       7,979,896.45       2,463,132.11         March 2031       1,106,125.54       7,777,143.36       2,408,340.53         April 2031       1,076,441.18       7,579,388.36       2,354,721.49         May 2031       1,047,533.28       7,386,510.77       2,302,250.50         June 2031       1,019,381.88       7,198,392.79       2,250,903.61		1,301,721.59		
November 2030       1,233,045.00       8,619,395.56       2,634,794.41         December 2030       1,200,044.73       8,400,894.38       2,576,333.28         January 2031       1,167,906.05       8,187,771.25       2,519,121.19         February 2031       1,136,606.83       7,979,896.45       2,463,132.11         March 2031       1,106,125.54       7,777,143.36       2,408,340.53         April 2031       1,076,441.18       7,579,388.36       2,354,721.49         May 2031       1,047,533.28       7,386,510.77       2,302,250.50         June 2031       1,019,381.88       7,198,392.79       2,250,903.61	*			2,694,531.18
December 2030       1,200,044.73       8,400,894.38       2,576,333.28         January 2031       1,167,906.05       8,187,771.25       2,519,121.19         February 2031       1,136,606.83       7,979,896.45       2,463,132.11         March 2031       1,106,125.54       7,777,143.36       2,408,340.53         April 2031       1,076,441.18       7,579,388.36       2,354,721.49         May 2031       1,047,533.28       7,386,510.77       2,302,250.50         June 2031       1,019,381.88       7,198,392.79       2,250,903.61				
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February 2031       1,136,606.83       7,979,896.45       2,463,132.11         March 2031       1,106,125.54       7,777,143.36       2,408,340.53         April 2031       1,076,441.18       7,579,388.36       2,354,721.49         May 2031       1,047,533.28       7,386,510.77       2,302,250.50         June 2031       1,019,381.88       7,198,392.79       2,250,903.61			8,187,771.25	
March 20311,106,125.547,777,143.362,408,340.53April 20311,076,441.187,579,388.362,354,721.49May 20311,047,533.287,386,510.772,302,250.50June 20311,019,381.887,198,392.792,250,903.61	•			
April 2031       1,076,441.18       7,579,388.36       2,354,721.49         May 2031       1,047,533.28       7,386,510.77       2,302,250.50         June 2031       1,019,381.88       7,198,392.79       2,250,903.61	·	, ,		
May 20311,047,533.287,386,510.772,302,250.50June 20311,019,381.887,198,392.792,250,903.61				
June 2031       1,019,381.88       7,198,392.79       2,250,903.61	•			
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Distribution Date	Classes GA and GL (in the aggregate)	Classes CA, CF and CY (in the aggregate)	Classes NA and NY (in the aggregate)
August 2031	\$ 965,271.35	\$ 6,835,978.37	\$ 2,151,488.68
September 2031	939,274.79	6,661,460.06	2,103,375.13
October 2031	913,959.88	6,491,257.52	2,056,294.62
November 2031	889,309.07	6,325,266.30	2,010,225.55
December 2031	865,305.27	6,163,384.45	1,965,146.76
January 2032	841,931.81	6,005,512.47	1,921,037.51
February 2032	819,172.46	5,851,553.19	1,877,877.51
March 2032	797,011.38	5,701,411.80	1,835,646.88
April 2032	775,433.15	5,554,995.74	1,794,326.13
May 2032	754,422.74	5,412,214.63	1,753,896.19
June 2032	733,965.50	5,272,980.28	1,714,338.38
July 2032	714,047.14	5,137,206.60	1,675,634.41
August 2032	694,653.76	5,004,809.55	1,637,766.34
September 2032	675,771.79	4,875,707.08	1,600,716.64
October 2032	657,388.02	4,749,819.15	1,564,468.10
November 2032	639,489.57	4,627,067.57	1,529,003.89
December 2032	622,063.89	4,507,376.08	1,494,307.53
January 2033	605,098.74	4,390,670.19	1,460,362.86
February 2033	588,582.21	4,276,877.23	1,427,154.07
March 2033	572,502.69	4,165,926.26	1,394,665.67
April 2033	556,848.85	4,057,748.02	1,362,882.48
May 2033	541,609.66	3,952,274.94	1,331,789.65
June 2033	526,774.38	3,849,441.04	1,301,372.63
July 2033	512,332.53	3,749,181.93	1,271,617.16
August 2033	498,273.90	3,651,434.78	1,242,509.30
September 2033	484,588.55	3,556,138.23	1,214,035.37
October 2033	471,266.79	3,463,232.44	1,186,181.99
November 2033	458,299.17	3,372,658.95	1,158,936.05
December 2033	445,676.48	3,284,360.76	1,132,284.71
January 2034	433,389.77	3,198,282.19	1,106,215.41
February 2034	421,430.29	3,114,368.92	1,080,715.83
March 2034	409,789.52	3,032,567.94	1,055,773.91
April 2034	398,459.17	2,952,827.50	1,031,377.86
May 2034	387,431.17	2,875,097.11	1,007,516.09
June 2034	376,697.61	2,799,327.47	984,177.30
July 2034	366,250.85	2,725,470.48	961,350.40
August 2034	356,083.38	2,653,479.21	939,024.52
September 2034	346,187.94	2,583,307.84	917,189.04
October 2034	336,557.41	2,514,911.65	895,833.54
November 2034	327,184.88	2,448,247.03	874,947.83
December 2034	318,063.61	2,383,271.38	854,521.91
January 2035	309,187.04	2,319,943.15	834,546.03
February 2035	300,548.75	2,258,221.78	815,010.59
March 2035	292,142.52	2,198,067.71	795,906.24
April 2035	283,962.28	2,139,442.30	777,223.78
May 2035	276,002.10	2,082,307.88	758,954.22
June 2035	268,256.22	2,026,627.67	741,088.78
June 2000	200,270.22	2,020,027.07	/ 11,000.70

July 2055         \$260,719.03         \$ 1,972,365.77         \$ 7,236,18.82           August 2035         253,385.04         1,919,487.16         706,535.90           September 2035         246,248.93         1,867,957.68         689,831.78           October 2035         239,305.50         1,817,743.96         673,498.34           November 2035         232,549.69         1,768,813.46         673,789.34           December 2035         225,976.58         1,721,134.44         641,912.03           January 2036         213,359.32         1,629,407.61         611,715.54           March 2036         207,305.95         1,588,300.06         597,119.99           April 2036         201,416.78         1,522,424.47         582,885.00           May 2036         195,687.49         1,500,452.75         568,898.60           June 2036         190,113.87         1,459,657.49         555,258.95           July 2036         184,691.81         1,419,911.95         555,258.95           July 2036         184,691.81         1,419,911.95         555,258.95           July 2036         179,417.30         1,381,190.03         528,888.28           September 2036         179,417.30         1,381,190.03         528,888.28           October 20	Distribution Date	Classes GA and GL (in the aggregate)	Classes CA, CF and CY (in the aggregate)	Classes NA and NY (in the aggregate)
September 2035         246 (248.93)         1,867,957,68         689,831.78           October 2035         239,305.50         1,817,743.96         673,498.13         675,272,68           November 2035         232,549.69         1,768,813.46         657,527,68           December 2036         2215,581.35         1,674,675.90         626,643.79           February 2036         213,359.32         1,629,407.61         611,715.54           March 2036         207,305.95         1,585,300.06         597,119.99           April 2036         201,416.78         1,542,324.47         582,850.00           May 2036         195,687.49         1,500,452.75         568,898.60           June 2036         190,113.87         1,459,657.49         555,258.95           July 2036         184,691.81         1,419,911.95         541,924.36           August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         19,295.49         1,306,715.82         503,686.12           November 2036         159,718.45         1,236,038.53         479,002.73           January 2037         155,152.27         1,202,064.96         467,905.60 </td <td>July 2035</td> <td>\$ 260,719.03</td> <td>\$ 1,972,365.77</td> <td>\$ 723,618.82</td>	July 2035	\$ 260,719.03	\$ 1,972,365.77	\$ 723,618.82
October 2035         239,305,50         1,817,743,96         673,498,34           November 2035         232,549,69         1,768,813,46         675,527,68           December 2035         225,976,58         1,721,134,44         641,912,03           January 2036         219,581,35         1,674,675,90         626,643,79           February 2036         213,359,32         1,629,407,61         611,715,54           March 2036         207,305,95         1,585,300,06         597,119,99           April 2036         201,416,78         1,542,334,47         582,850,00           May 2036         190,113,87         1,459,657,49         555,258,95           July 2036         184,691,81         1,419,911,95         541,924,36           August 2036         179,417,30         1,381,190,03         528,888,28           September 2036         174,286,46         1,343,466,26         516,144,29           October 2036         169,295,49         1,306,715,82         505,686,12           November 2036         164,440,68         1,277,014,46         491,507,60           December 2036         159,718,45         1,236,038,53         479,602,73           January 2037         155,125,27         1,202,064,96         467,505,60           Peb	August 2035	253,385.04	1,919,487.16	706,535.90
November 2035         232,549.69         1,768,813.46         657,527.68           December 2035         225,976.58         1,721,134.44         641,912.03           January 2036         219,581.35         1,674,675.90         626,643.79           February 2036         213,359.32         1,629,407.61         611,715.54           March 2036         207,305.95         1,585,300.06         597,119.99           April 2036         201,416.78         1,542,324.47         582,850.00           May 2036         195,687.49         1,500,452.75         568,898.60           June 2036         190,113.87         1,459,657.49         555,258.95           July 2036         184,691.81         1,419,911.95         541,924.36           August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         150,657.74         1,168,971.23         465,590.45           March 2037         146,312.51         1,136,753.39         445,471.62           April 203	September 2035	246,248.93	1,867,957.68	689,831.78
December 2035         225,976,58         1,721,134,44         641,912.03           January 2036         219,581,35         1,674,675,90         626,643,79           February 2036         213,539,32         1,629,407,61         611,715,54           March 2036         207,305,95         1,585,300,06         597,119,99           April 2036         201,416,78         1,542,324,47         582,850,00           May 2036         195,687,49         1,500,452,75         568,898,60           June 2036         190,113,87         1,459,657,49         555,258,95           July 2036         184,691,81         1,419,911.95         541,924,36           August 2036         179,417,30         1,381,190.03         528,888,28           September 2036         174,286,46         1,343,466,26         516,144,29           October 2036         169,295,49         1,306,715,82         503,686,12           November 2036         159,718,45         1,236,038,53         479,602,73           January 2037         150,657,74         1,168,971.23         445,570,60           Pebruary 2037         150,657,74         1,168,971.23         445,471.62           April 2037         142,086,36         1,105,336.01         434,603.59           May 2037<	October 2035	239,305.50	1,817,743.96	673,498.34
January 2036   219,581,35   1,674,675.90   626,648.79   Pebruary 2036   213,359.32   1,629,407.61   611,715.54   March 2036   207,305.95   1,585,300.06   597,119.99   April 2036   201,416.78   1,542,324.47   582,850.00   May 2036   195,687.49   1,500,452.75   568,886.60   June 2036   190,113.87   1,459,657.49   555,258.95   July 2036   184,691.81   1,419,911.95   541,924.36   August 2036   179,417.30   1,381,190.03   528,888.28   September 2036   179,447.30   1,381,190.03   528,888.28   September 2036   174,286.46   1,343,466.26   516,144.29   October 2036   169,295.49   1,306,715.82   503,686.12   November 2036   164,440.68   1,270,914.46   491,507.60   December 2036   164,440.68   1,270,914.46   491,507.60   December 2036   159,718.45   1,236,038.53   479,602.73   January 2037   155,125.27   1,202,064.96   467,965.60   February 2037   155,125.27   1,202,064.96   467,965.60   February 2037   150,657.74   1,168,971.23   456,590.45   March 2037   142,086.36   1,105,336.01   434,603.59   May 2037   137,976.12   1,074,752.17   423,980.94   June 2037   137,976.12   1,074,752.17   423,980.94   June 2037   130,091.15   1,015,950.05   403,450.68   August 2037   120,633.93   506,171.75   305,665.06   September 2037   120,633.93   506,171.75   305,665.074   10,747,752.17   423,980.94   June 2037   120,633.93   506,171.75   338,839.74   October 2037   119,058.66   933,369.47   374,366.65   November 2038   105,717.77   832,990.57   338,889.00   438,470.20   338,839.74   44,274.11   305,990.35   336,061.39   34,219.98	November 2035	232,549.69	1,768,813.46	657,527.68
February 2036         213,359,32         1,629,407.61         611,715.54           March 2036         207,305.95         1,585,300.06         597,119.99           April 2036         201,416.78         1,542,324.47         582,850.00           May 2036         195,687.49         1,500,452.75         568,898.60           June 2036         190,113.87         1,459,657.49         555,289.95           July 2036         184,691.81         1,419,911.95         541,924.36           August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         169,295.49         1,306,715.82         503,686.1           November 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         465,690.45           March 2037         142,086.36         1,105,336.01         436,603.59           Mary 2037         137,976.12         1,074,752.17         423,690.59           May 2037	December 2035	225,976.58	1,721,134.44	641,912.03
March 2036         207,305.95         1,585,300.06         597,119.99           April 2036         201,416.78         1,542,324.47         568,898.60           June 2036         195,687.49         1,500,452.75         568,898.60           June 2036         190,113.87         1,459,657.49         555,258.95           July 2036         184,691.81         1,419,911.95         541,924.36           August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,470.65           April 2037         142,086.36         1,105,335.01         434,603.59           May 2037         133,978.72         1,044,963.48         415,598.36           July 2037         130,991.51         1,015,950.05         403,450.68           August 2037	January 2036	219,581.35	1,674,675.90	626,643.79
April 2036         201,416.78         1,542,324.47         582,850.00           May 2036         195,687.49         1,500,452.75         568,898.60           June 2036         190,113.87         1,459,657.49         555,258.95           July 2036         184,691.81         1,419,911.95         551,258.95           July 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         169,295.49         1,306,715.82         503,686.12           November 2036         159,718.45         1,236,038.53         497,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         140,312.51         1,156,735.39         445,471.62           April 2037         142,986.36         1,105,333.00         434,603.59           May 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,991.15         1,015,950.05         403,459.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037	February 2036	213,359.32	1,629,407.61	611,715.54
May 2036         195,687.49         1,500,452.75         568,898.60           June 2036         190,113.87         1,459,657.49         555,288.95           July 2036         184,691.81         1,419,911.95         541,224.36           August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         169,295.49         1,306,715.82         503,686.12           November 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           Pebruary 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         133,978.72         1,074,752.17         423,890.94           June 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.05         403,450.68           August 2037	March 2036	207,305.95	1,585,300.06	597,119.99
June 2036         190,113.87         1,459,657.49         555,258.95           July 2036         184,691.81         1,419,911.95         541,924.36           August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         169,295.49         1,306,715.82         503,686.12           November 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         144,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,074,752.17         423,980.94           June 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.5         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2038 </td <td>April 2036</td> <td>201,416.78</td> <td>1,542,324.47</td> <td>582,850.00</td>	April 2036	201,416.78	1,542,324.47	582,850.00
July 2036         184,691.81         1,419,911.95         541,924.36           August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         169,295.49         1,306,715.82         503,686.12           November 2036         164,440.08         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,044.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         142,086.36         1,105,336.01         434,603.59           May 2037         137,976.12         1,074,752.17         423,980.94           June 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.05         403,450.68           August 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,889.74           October 2037<	May 2036	195,687.49	1,500,452.75	568,898.60
August 2036         179,417.30         1,381,190.03         528,888.28           September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         169,295.49         1,306,715.82         503,686.12           November 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         133,978.72         1,074,752.17         423,980.94           June 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,586.0         993,369.47         374,366.65           November 2037         112,201.33         881,848.50         356,061.39           January 2038 <td>June 2036</td> <td>190,113.87</td> <td>1,459,657.49</td> <td>555,258.95</td>	June 2036	190,113.87	1,459,657.49	555,258.95
September 2036         174,286.46         1,343,466.26         516,144.29           October 2036         169,295.49         1,306,715.82         503,686.12           November 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         1442,086.36         1,105,336.01         434,603.59           May 2037         137,976.12         1,074,752.17         423,980.94           June 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         126,310.50         987,692.45         393,532.79           September 2037         112,058.66         933,369.47         374,366.65           November 2037         112,201.33         881,848.50         356,061.39           January 2038         108,714.77         832,990.57         338,580.66           March 2038	July 2036	184,691.81	1,419,911.95	541,924.36
October 2036         169,295.49         1,306,715.82         503,686.12           November 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         133,978.72         1,074,752.17         423,980.94           June 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         115,582.01         907,267.58         365,108.76           December 2038         108,914.08         857,095.08         347,219.98           February 2038<	August 2036	179,417.30	1,381,190.03	528,888.28
November 2036         164,440.68         1,270,914.46         491,507.60           December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         133,978.72         1,044,963.48         413,598.36           July 2037         133,978.72         1,044,963.48         413,598.36           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2038         108,914.08         857,095.08         347,219.8           February 2038         108,914.08         857,095.08         347,219.8           February 2038 <td>September 2036</td> <td>174,286.46</td> <td>1,343,466.26</td> <td>516,144.29</td>	September 2036	174,286.46	1,343,466.26	516,144.29
December 2036         159,718.45         1,236,038.53         479,602.73           January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         112,201.33         881,845.0         356,108.76           December 2037         112,201.33         881,845.0         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         99,588.28         786,663.39         321,887.24           May 2038 <t< td=""><td>*</td><td>169,295.49</td><td>1,306,715.82</td><td>503,686.12</td></t<>	*	169,295.49	1,306,715.82	503,686.12
January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         133,978.72         1,074,752.17         423,980.94           June 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         99,588.28         786,663.39         321,887.25           May 2038         99,588.28         786,663.39         321,887.25           May 2038         99,5		164,440.68	1,270,914.46	491,507.60
January 2037         155,125.27         1,202,064.96         467,965.60           February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         133,978.72         1,074,752.17         423,980.94           June 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,588.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         82,990.57         338,580.06           March 2038         99,588.28         786,663.39         321,887.25           May 2038         99,588.28         786,663.39         321,887.25           May 2038         99,58	December 2036	159,718.45	1,236,038.53	479,602.73
February 2037         150,657.74         1,168,971.23         456,590.45           March 2037         146,312.51         1,136,735.39         445,471.62           April 2037         142,086,36         1,105,336.01         434,603.59           May 2037         137,976.12         1,074,752.17         423,980.94           June 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         99,588.28         786,663.39         321,887.25           May 2038         99,588.28         786,663.39         321,887.25           May 2038         99,794.21	January 2037		1,202,064.96	467,965.60
April 2037       142,086.36       1,105,336.01       434,603.59         May 2037       137,976.12       1,074,752.17       423,980.94         June 2037       133,978.72       1,044,963.48       413,598.36         July 2037       130,091.15       1,015,950.05       403,450.68         August 2037       126,310.50       987,692.45       393,532.79         October 2037       119,058.66       933,369.47       374,366.65         November 2037       115,582.01       907,267.58       365,108.76         December 2037       112,201.33       881,848.50       356,061.39         January 2038       108,914.08       857,095.08       347,219.98         February 2038       105,717.77       832,990.57       338,580.06         March 2038       102,609.95       809,518.65       330,137.24         April 2038       99,588.28       786,663.39       321,887.25         May 2038       96,50.45       764,409.27       313,825.88         July 2038       91,017.39       721,644.15       298,252.68         August 2038       88,317.85       701,103.96       290,732.89         September 2038       85,693.53       681,106.47       283,385.82         October 2038       85,69	•			456,590.45
April 2037         142,086.36         1,105,336.01         434,603.59           May 2037         137,976.12         1,074,752.17         423,980.94           June 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         99,588.28         786,663.39         321,887.25           May 2038         99,598.28         786,663.39         321,887.25           May 2038         91,017.39	March 2037	146,312.51	1,136,735.39	445,471.62
June 2037         133,978.72         1,044,963.48         413,598.36           July 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         99,588.28         786,663.39         321,887.25           May 2038         96,650.45         764,409.27         313,825.88           June 2038         93,794.21         742,741.12         305,949.03           July 2038         91,017.39         721,644.15         298,252.68           August 2038         88,317.85		142,086.36	1,105,336.01	434,603.59
July 2037         130,091.15         1,015,950.05         403,450.68           August 2037         126,310.50         987,692.45         393,532.79           September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         99,589.21         742,741.12         305,949.03           July 2038         91,017.39         721,644.15         298,252.68           August 2038         88,317.85 <t< td=""><td>May 2037</td><td>137,976.12</td><td>1,074,752.17</td><td>423,980.94</td></t<>	May 2037	137,976.12	1,074,752.17	423,980.94
August 2037       120,310.50       987,692.45       393,532.79         September 2037       122,633.93       960,171.75       383,839.74         October 2037       119,058.66       933,369.47       374,366.65         November 2037       115,582.01       907,267.58       365,108.76         December 2037       112,201.33       881,848.50       356,061.39         January 2038       108,914.08       857,095.08       347,219.98         February 2038       105,717.77       832,990.57       338,580.06         March 2038       102,609.95       809,518.65       330,137.24         April 2038       99,588.28       786,663.39       321,887.25         May 2038       96,650.45       764,409.27       313,825.88         July 2038       91,017.39       721,644.15       298,252.68         August 2038       88,317.85       701,103.96       290,732.89         September 2038       88,317.85       701,103.96       290,732.89         September 2038       88,317.85       701,103.96       290,732.89         November 2038       89,662.51       642,685.03       269,194.80         December 2038       78,251.94       624,234.66       262,343.55         January 2039       <	June 2037	133,978.72	1,044,963.48	413,598.36
September 2037         122,633.93         960,171.75         383,839.74           October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         96,650.45         764,409.27         313,825.88           June 2038         93,794.21         742,741.12         305,949.03           July 2038         91,017.39         721,644.15         298,252.68           August 2038         88,317.85         701,103.96         299,732.89           September 2038         85,693.53         681,106.47         283,385.82           October 2038         85,693.53         681,106.47         283,385.82           October 2038         80,662.51         642,685.03         269,194.80           December 2038         78,251.94 <td>July 2037</td> <td>130,091.15</td> <td>1,015,950.05</td> <td>403,450.68</td>	July 2037	130,091.15	1,015,950.05	403,450.68
October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         96,650.45         764,409.27         313,825.88           June 2038         93,794.21         742,741.12         305,949.03           July 2038         91,017.39         721,644.15         298,252.68           August 2038         88,317.85         701,103.96         290,732.89           September 2038         85,693.53         681,106.47         283,385.82           October 2038         83,142.40         661,637.95         276,207.68           November 2038         80,662.51         642,685.03         269,194.80           December 2038         78,251.94         624,234.66         262,343.55           January 2039         75,908.82	August 2037	126,310.50	987,692.45	393,532.79
October 2037         119,058.66         933,369.47         374,366.65           November 2037         115,582.01         907,267.58         365,108.76           December 2037         112,201.33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         96,650.45         764,409.27         313,825.88           June 2038         93,794.21         742,741.12         305,949.03           July 2038         91,017.39         721,644.15         298,252.68           August 2038         88,317.85         701,103.96         290,732.89           September 2038         85,693.53         681,106.47         283,385.82           October 2038         83,142.40         661,637.95         276,207.68           November 2038         80,662.51         642,685.03         269,194.80           December 2038         78,251.94         624,234.66         262,343.55           January 2039         75,908.82	September 2037	122,633.93	960,171.75	383,839.74
December 2037         112,201,33         881,848.50         356,061.39           January 2038         108,914.08         857,095.08         347,219.98           February 2038         105,717.77         832,990.57         338,580.06           March 2038         102,609.95         809,518.65         330,137.24           April 2038         99,588.28         786,663.39         321,887.25           May 2038         96,650.45         764,409.27         313,825.88           June 2038         93,794.21         742,741.12         305,949.03           July 2038         91,017.39         721,644.15         298,252.68           August 2038         88,317.85         701,103.96         290,732.89           September 2038         85,693.53         681,106.47         283,385.82           October 2038         83,142.40         661,637.95         276,207.68           November 2038         80,662.51         642,685.03         269,194.80           December 2038         78,251.94         624,234.66         262,343.55           January 2039         75,908.82         606,274.09         255,650.39           February 2039         73,631.35         588,790.90         249,111.88           March 2039         71,417.76			933,369.47	
January 2038108,914.08857,095.08347,219.98February 2038105,717.77832,990.57338,580.06March 2038102,609.95809,518.65330,137.24April 203899,588.28786,663.39321,887.25May 203896,650.45764,409.27313,825.88June 203893,794.21742,741.12305,949.03July 203891,017.39721,644.15298,252.68August 203888,317.85701,103.96290,732.89September 203885,693.53681,106.47283,385.82October 203883,142.40661,637.95276,207.68November 203880,662.51642,685.03269,194.80December 203880,662.51642,685.03269,194.80December 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29	November 2037	115,582.01	907,267.58	365,108.76
January 2038108,914.08857,095.08347,219.98February 2038105,717.77832,990.57338,580.06March 2038102,609.95809,518.65330,137.24April 203899,588.28786,663.39321,887.25May 203896,650.45764,409.27313,825.88June 203893,794.21742,741.12305,949.03July 203891,017.39721,644.15298,252.68August 203888,317.85701,103.96290,732.89September 203885,693.53681,106.47283,385.82October 203883,142.40661,637.95276,207.68November 203880,662.51642,685.03269,194.80December 203878,251.94624,234.66262,343.55January 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29	December 2037	112,201.33	881,848.50	356,061.39
March 2038102,609.95809,518.65330,137.24April 203899,588.28786,663.39321,887.25May 203896,650.45764,409.27313,825.88June 203893,794.21742,741.12305,949.03July 203891,017.39721,644.15298,252.68August 203888,317.85701,103.96290,732.89September 203885,693.53681,106.47283,385.82October 203883,142.40661,637.95276,207.68November 203880,662.51642,685.03269,194.80December 203878,251.94624,234.66262,343.55January 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29		108,914.08	857,095.08	347,219.98
March 2038102,609.95809,518.65330,137.24April 203899,588.28786,663.39321,887.25May 203896,650.45764,409.27313,825.88June 203893,794.21742,741.12305,949.03July 203891,017.39721,644.15298,252.68August 203888,317.85701,103.96290,732.89September 203885,693.53681,106.47283,385.82October 203883,142.40661,637.95276,207.68November 203880,662.51642,685.03269,194.80December 203878,251.94624,234.66262,343.55January 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29	February 2038	105,717.77	832,990.57	338,580.06
April 203899,588.28786,663.39321,887.25May 203896,650.45764,409.27313,825.88June 203893,794.21742,741.12305,949.03July 203891,017.39721,644.15298,252.68August 203888,317.85701,103.96290,732.89September 203885,693.53681,106.47283,385.82October 203883,142.40661,637.95276,207.68November 203880,662.51642,685.03269,194.80December 203878,251.94624,234.66262,343.55January 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29	•	102,609.95	809,518.65	330,137.24
June 203893,794.21742,741.12305,949.03July 203891,017.39721,644.15298,252.68August 203888,317.85701,103.96290,732.89September 203885,693.53681,106.47283,385.82October 203883,142.40661,637.95276,207.68November 203880,662.51642,685.03269,194.80December 203878,251.94624,234.66262,343.55January 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29		99,588.28	786,663.39	321,887.25
June 203893,794.21742,741.12305,949.03July 203891,017.39721,644.15298,252.68August 203888,317.85701,103.96290,732.89September 203885,693.53681,106.47283,385.82October 203883,142.40661,637.95276,207.68November 203880,662.51642,685.03269,194.80December 203878,251.94624,234.66262,343.55January 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29	May 2038	96,650.45	764,409.27	313,825.88
August 2038       88,317.85       701,103.96       290,732.89         September 2038       85,693.53       681,106.47       283,385.82         October 2038       83,142.40       661,637.95       276,207.68         November 2038       80,662.51       642,685.03       269,194.80         December 2038       78,251.94       624,234.66       262,343.55         January 2039       75,908.82       606,274.09       255,650.39         February 2039       73,631.35       588,790.90       249,111.88         March 2039       71,417.76       571,772.98       242,724.62         April 2039       69,266.33       555,208.52       236,485.29	•	93,794.21	742,741.12	
August 2038       88,317.85       701,103.96       290,732.89         September 2038       85,693.53       681,106.47       283,385.82         October 2038       83,142.40       661,637.95       276,207.68         November 2038       80,662.51       642,685.03       269,194.80         December 2038       78,251.94       624,234.66       262,343.55         January 2039       75,908.82       606,274.09       255,650.39         February 2039       73,631.35       588,790.90       249,111.88         March 2039       71,417.76       571,772.98       242,724.62         April 2039       69,266.33       555,208.52       236,485.29	· ·			
September 2038       85,693.53       681,106.47       283,385.82         October 2038       83,142.40       661,637.95       276,207.68         November 2038       80,662.51       642,685.03       269,194.80         December 2038       78,251.94       624,234.66       262,343.55         January 2039       75,908.82       606,274.09       255,650.39         February 2039       73,631.35       588,790.90       249,111.88         March 2039       71,417.76       571,772.98       242,724.62         April 2039       69,266.33       555,208.52       236,485.29	August 2038	88,317.85		
October 2038       83,142.40       661,637.95       276,207.68         November 2038       80,662.51       642,685.03       269,194.80         December 2038       78,251.94       624,234.66       262,343.55         January 2039       75,908.82       606,274.09       255,650.39         February 2039       73,631.35       588,790.90       249,111.88         March 2039       71,417.76       571,772.98       242,724.62         April 2039       69,266.33       555,208.52       236,485.29			681,106.47	
November 2038       80,662.51       642,685.03       269,194.80         December 2038       78,251.94       624,234.66       262,343.55         January 2039       75,908.82       606,274.09       255,650.39         February 2039       73,631.35       588,790.90       249,111.88         March 2039       71,417.76       571,772.98       242,724.62         April 2039       69,266.33       555,208.52       236,485.29	•			
December 2038       78,251.94       624,234.66       262,343.55         January 2039       75,908.82       606,274.09       255,650.39         February 2039       73,631.35       588,790.90       249,111.88         March 2039       71,417.76       571,772.98       242,724.62         April 2039       69,266.33       555,208.52       236,485.29			642,685.03	
January 203975,908.82606,274.09255,650.39February 203973,631.35588,790.90249,111.88March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29		78,251.94		
February 2039       73,631.35       588,790.90       249,111.88         March 2039       71,417.76       571,772.98       242,724.62         April 2039       69,266.33       555,208.52       236,485.29				
March 203971,417.76571,772.98242,724.62April 203969,266.33555,208.52236,485.29				
April 2039				
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Distribution Date	Classes GA and GL (in the aggregate)	Classes CA, CF and CY (in the aggregate)	Classes NA and NY (in the aggregate)
June 2039	\$ 65,143.27	\$ 523,394.13	\$ 224,437.51
July 2039	63,168.43	508,122.00	218,622.78
August 2039	61,249.30	493,258.90	212,943.40
September 2039	59,384.39	478,794.40	207,396.40
October 2039	57,572.21	464,718.33	201,978.86
November 2039	55,811.36	451,020.77	196,687.93
December 2039	54,100.42	437,692.04	191,520.82
January 2040	52,438.06	424,722.71	186,474.79
February 2040	50,822.95	412,103.57	181,547.16
March 2040	49,253.81	399,825.65	176,735.32
April 2040	47,729.40	387,880.21	172,036.70
May 2040	46,248.48	376,258.70	167,448.81
June 2040	44,809.89	364,952.81	162,969.17
July 2040	43,412.46	353,954.42	158,595.40
August 2040	42,055.07	343,255.61	154,325.14
September 2040	40,736.64	332,848.67	150,156.09
October 2040	39,456.09	322,726.08	146,086.00
November 2040	38,212.39	312,880.48	142,112.67
December 2040	37,004.53	303,304.74	138,233.94
January 2041	35,831.54	293,991.87	134,447.70
February 2041	34,692.45	284,935.07	130,751.89
March 2041	33,586.33	276,127.70	127,144.48
April 2041	32,512.29	267,563.31	123,623.51
May 2041	31,469.43	259,235.58	120,187.03
June 2041	30,456.90	251,138.36	116,833.16
July 2041	29,473.86	243,265.66	113,560.03
August 2041	28,519.51	235,611.63	110,365.85
September 2041	27,593.04	228,170.59	107,248.84
October 2041	26,693.70	220,936.96	104,207.26
November 2041	25,820.72	213,905.35	101,239.41
December 2041	24,973.39	207,070.45	98,343.63
January 2042	24,150.98	200,427.14	95,518.31
February 2042	23,352.81	193,970.39	92,761.84
March 2042	22,578.21	187,695.30	90,072.67
April 2042	21,826.51	181,597.12	87,449.29
May 2042	21,097.09	175,671.18	84,890.19
June 2042	20,389.32	169,912.96	82,393.94
July 2042	19,702.61	164,318.05	79,959.09
August 2042	19,036.35	158,882.13	77,584.25
September 2042	18,389.99	153,601.01	75,268.07
October 2042	17,762.95	148,470.60	73,009.20
November 2042	17,154.71	143,486.90	70,806.34
December 2042	16,564.74	138,646.04	68,658.22
January 2043	15,992.52	133,944.23	66,563.58
February 2043	15,437.56	129,377.76	64,521.20
March 2043	14,899.36	124,943.05	62,529.88
April 2043	14,377.46	120,636.59	60,588.46

Distribution Date	ses GA and GL the aggregate)	•	Classes CA, CF and CY the aggregate)	ses NA and NY he aggregate)
May 2043	\$ 13,871.40	\$	116,454.96	\$ 58,695.79
June 2043	13,380.73		112,394.82	56,850.76
July 2043	12,905.01		108,452.93	55,052.26
August 2043	12,443.83		104,626.13	53,299.23
September 2043	11,996.76		100,911.33	51,590.62
October 2043	11,563.42		97,305.53	49,925.40
November 2043	11,143.41		93,805.80	48,302.58
December 2043	10,736.35		90,409.29	46,721.17
January 2044	10,341.87		87,113.22	45,180.21
February 2044	9,959.61		83,914.87	43,678.76
March 2044	9,589.23		80,811.61	42,215.92
April 2044	9,230.38		77,800.87	40,790.78
May 2044	8,882.74		74,880.14	39,402.46
June 2044	8,545.98		72,046.98	38,050.11
July 2044	8,219.79		69,299.00	36,732.88
August 2044	7,903.86		66,633.90	35,449.97
September 2044	7,597.91		64,049.41	34,200.56
October 2044	7,301.64		61,543.34	32,983.87
November 2044	7,014.78		59,113.54	31,799.13
December 2044	6,737.05		56,757.91	30,645.59
January 2045	6,468.18		54,474.44	29,522.52
February 2045	6,207.93		52,261.14	28,429.20
March 2045	5,956.03		50,116.07	27,364.94
April 2045	5,712.25		48,037.36	26,329.03
May 2045	5,476.35		46,023.17	25,320.82
June 2045	5,248.11		44,071.73	24,339.64
July 2045	5,027.28		42,181.29	23,384.86
August 2045	4,813.67		40,350.16	22,455.84
September 2045	4,607.05		38,576.70	21,551.98
October 2045	4,407.23		36,859.29	20,672.67
November 2045	4,213.99		35,196.38	19,817.34
December 2045	4,027.15		33,586.45	18,985.40
January 2046	3,846.52		32,028.00	18,176.29
February 2046	3,671.92		30,519.60	17,389.47
March 2046	3,503.16		29,059.85	16,624.41
April 2046	3,340.07		27,647.36	15,880.57
May 2046	3,182.49		26,280.81	15,157.45
June 2046	3,030.24		24,958.90	14,454.55
July 2046	2,883.17		23,680.37	13,771.38
August 2046	2,741.13		22,443.98	13,107.45
September 2046	2,603.96		21,248.54	12,462.31
October 2046	2,471.52		20,092.88	11,835.50
November 2046	2,343.66		18,975.87	11,226.57
December 2046	2,220.25		17,896.39	10,635.08
January 2047	2,101.16		16,853.37	10,060.60
February 2047	1,986.24		15,845.77	9,502.73
March 2047	1,875.37		14,872.57	8,961.05
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Distribution Date		es GA and GL ne aggregate)	(	Classes CA, CF and CY he aggregate)	Classes NA and NY (in the aggregate)		
April 2047	\$	1,768.44	\$	13,932.76	\$	8,435.17	
May 2047		1,665.32		13,025.39		7,924.69	
June 2047		1,565.89		12,149.52		7,429.24	
July 2047		1,470.04		11,304.22		6,948.45	
August 2047		1,377.67		10,488.62		6,481.94	
September 2047		1,288.66		9,701.83		6,029.37	
October 2047		1,202.91		8,943.02		5,590.39	
November 2047		1,120.31		8,211.36		5,164.66	
December 2047		1,040.78		7,506.06		4,751.86	
January 2048		964.22		6,826.34		4,351.64	
February 2048		890.53		6,171.44		3,963.71	
March 2048		819.62		5,540.63		3,587.75	
April 2048		751.41		4,933.18		3,223.46	
May 2048		685.81		4,348.40		2,870.55	
June 2048		622.74		3,785.62		2,528.72	
July 2048		562.12		3,244.17		2,197.70	
August 2048		503.87		2,723.41		1,877.21	
September 2048		447.92		2,222.72		1,566.98	
October 2048		394.20		1,741.48		1,266.75	
November 2048		342.62		1,279.12		976.27	
December 2048		293.13		835.05		695.27	
January 2049		245.65		408.71		423.53	
February 2049		200.13		0.00		160.80	
March 2049		156.49		0.00		0.00	
April 2049		114.68		0.00		0.00	
May 2049		74.64		0.00		0.00	
June 2049		36.30		0.00		0.00	
July 2049 and thereafter		0.00		0.00		0.00	

Distribution Date	Classes ND and NZ (in the aggregate)	Classes AF, KA and KL (in the aggregate)	Classes BF, KB and YK (in the aggregate)
Initial Balance	\$1,876,000.00	\$28,294,000.00	\$21,444,000.00
December 2019	1,864,762.75	28,207,573.95	21,340,773.26
January 2020	1,851,098.24	28,110,172.50	21,224,521.36
February 2020	1,835,026.24	28,001,835.02	21,095,327.77
March 2020	1,816,573.21	27,882,611.86	20,953,296.54
April 2020	1,795,772.39	27,752,564.32	20,798,552.29
May 2020	1,772,663.65	27,611,764.61	20,631,240.05
June 2020	1,747,293.49	27,460,295.86	20,451,525.14
July 2020	1,719,715.03	27,298,251.98	20,259,592.92
August 2020	1,689,987.75	27,125,737.63	20,055,648.56
September 2020	1,658,177.56	26,942,868.08	19,839,916.66
October 2020	1,624,356.47	26,749,769.15	19,612,640.91
November 2020	1,588,602.53	26,546,576.98	19,374,083.64
December 2020	1,550,999.61	26,333,437.96	19,124,525.34
January 2021	1,511,637.17	26,110,508.51	18,864,264.13
February 2021	1,470,610.04	25,877,954.89	18,593,615.15
March 2021	1,428,018.17	25,635,953.02	18,312,909.96
April 2021	1,383,966.33	25,384,688.22	18,022,495.82
May 2021	1,338,563.79	25,124,354.97	17,722,735.00
June 2021	1,291,924.08	24,855,156.68	17,414,003.96
July 2021	1,244,164.59	24,577,305.39	17,096,692.59
August 2021	1,195,406.27	24,291,021.49	16,771,203.32
September 2021	1,145,773.19	23,996,533.41	16,437,950.24
October 2021	1,095,392.27	23,694,077.30	16,097,358.19
November 2021	1,044,392.79	23,383,896.72	15,749,861.81
December 2021	992,906.07	23,066,242.25	15,395,904.52
January 2022	941,675.98	22,741,371.18	15,035,937.58
February 2022	890,783.10	22,409,547.11	14,682,127.37
March 2022	841,775.59	22,071,039.59	14,334,365.60
April 2022	794,607.37	21,736,086.45	13,992,545.84
May 2022	749,233.33	21,404,648.75	13,656,563.52
June 2022	705,609.29	21,076,687.95	13,326,315.85
July 2022	663,692.01	20,752,165.91	13,001,701.84
August 2022	623,439.15	20,431,044.92	12,682,622.24
September 2022	584,809.26	20,131,011.52	12,368,979.50
October 2022	547,761.76	19,798,857.14	12,060,677.79
November 2022	512,256.93	19,487,716.88	11,757,622.91
December 2022	478,255.89	19,179,830.70	11,459,722.30
January 2023	445,720.59	18,875,162.84	11,166,885.01
February 2023	414,613.77	18,573,677.88	10,879,021.65
March 2023	384,898.99	18,275,340.82	10,596,044.38
April 2023	356,540.55	17,980,117.00	10,317,866.90
•			10,044,404.37
May 2023	329,503.55 303,753,70	17,687,972.14 17,398,872.32	
June 2023	303,753.79		9,775,573.44
July 2023	279,257.86	17,112,783.96	9,511,292.21
August 2023	255,983.01	16,829,673.88	9,251,480.17
September 2023	233,897.24	16,549,509.20	8,996,058.24

Distribution Date	Classes ND and NZ (in the aggregate)	Classes AF, KA and KL (in the aggregate)	Classes BF, KB and YK (in the aggregate)
October 2023	\$ 212,969.21	\$16,272,257.42	\$ 8,744,948.69
November 2023	193,168.28	15,997,886.38	8,498,075.13
December 2023	174,464.44	15,726,364.25	8,255,362.51
January 2024	156,828.36	15,457,659.54	8,016,737.07
February 2024	140,231.36	15,191,741.09	7,784,072.10
March 2024	124,645.33	14,928,578.09	7,558,090.44
April 2024	110,042.82	14,668,140.03	7,338,601.65
May 2024	96,396.98	14,410,396.73	7,125,420.65
June 2024	83,681.52	14,155,318.35	6,918,367.63
July 2024	71,870.74	13,902,875.33	6,717,267.83
August 2024	60,939.52	13,653,038.45	6,521,951.50
September 2024	50,863.29	13,405,778.79	6,332,253.64
October 2024	41,618.00	13,161,067.73	6,148,013.98
November 2024	33,180.17	12,918,876.97	5,969,076.77
December 2024	25,526.80	12,679,178.50	5,795,290.65
January 2025	18,635.44	12,441,944.59	5,626,508.60
February 2025	12,484.13	12,207,147.84	5,462,587.74
March 2025	7,144.93	11,974,761.10	5,303,389.25
April 2025	3,450.41	11,744,757.54	5,148,778.25
May 2025	1,344.36	11,517,110.59	4,998,623.67
June 2025	772.10	11,291,793.98	4,852,798.19
July 2025	772.09	11,069,812.42	4,711,178.07
August 2025	772.09	10,852,079.85	4,573,643.11
September 2025	772.09	10,638,516.41	4,440,076.51
October 2025	772.09	10,429,043.67	4,310,364.79
November 2025	772.09	10,223,584.70	4,184,397.68
December 2025	772.09	10,022,063.98	4,062,068.07
January 2026	772.09	9,824,407.39	3,943,271.85
February 2026	772.09	9,630,542.20	3,827,907.92
March 2026	772.09	9,440,397.01	3,715,878.01
April 2026	772.09	9,253,901.77	3,607,086.66
May 2026	772.09	9,070,987.73	3,501,441.13
June 2026	772.09	8,891,587.40	3,398,851.30
July 2026	772.09	8,715,634.56	3,299,229.64
August 2026	772.09	8,543,064.22	3,202,491.07
September 2026	772.09	8,373,812.59	3,108,552.96
October 2026	772.09	8,207,817.08	3,017,335.03
November 2026	772.09	8,045,016.26	2,928,759.26
December 2026	772.09	7,885,349.84	2,842,749.89
January 2027	772.09	7,728,758.64	2,759,233.28
February 2027	772.09	7,575,184.62	2,678,137.90
March 2027	772.09	7,424,570.78	2,599,394.25
April 2027	772.09	7,276,861.21	2,522,934.84
May 2027	772.09	7,132,001.02	2,448,694.06
June 2027	772.09	6,989,936.36	2,376,608.19
July 2027	772.09	6,850,614.37	2,306,615.33
August 2027	772.09	6,713,983.19	2,238,655.33

Distribution Date	Classes ND and NZ (in the aggregate)	Classes AF, KA and KL (in the aggregate)	Classes BF, KB and YK (in the aggregate)
September 2027	\$ 772.09	\$ 6,579,991.91	\$ 2,172,669.78
October 2027	772.09	6,448,590.59	2,108,601.89
November 2027	772.09	6,319,730.19	2,046,396.55
December 2027	772.09	6,193,362.63	1,986,000.16
January 2028	772.09	6,069,440.68	1,927,360.70
February 2028	772.09	5,947,918.02	1,870,427.60
March 2028	772.09	5,828,749.19	1,815,151.75
April 2028	772.09	5,711,889.58	1,761,485.44
May 2028	772.09	5,597,295.40	1,709,382.31
June 2028	772.09	5,484,923.69	1,658,797.34
July 2028	772.09	5,374,732.29	1,609,686.79
August 2028	772.09	5,266,679.82	1,562,008.17
September 2028	772.09	5,160,725.70	1,515,720.20
October 2028	772.09	5,056,830.07	1,470,782.78
November 2028	772.09	4,954,953.84	1,427,156.95
December 2028	772.09	4,855,058.65	1,384,804.89
January 2029	772.09	4,757,106.85	1,343,689.84
February 2029	772.09	4,661,061.50	1,303,776.08
March 2029	772.09	4,566,886.34	1,265,028.94
April 2029	772.09	4,474,545.80	1,227,414.72
May 2029	772.09	4,384,004.97	1,190,900.70
June 2029	772.09	4,295,229.61	1,155,455.08
July 2029	772.09	4,208,186.09	1,121,046.99
August 2029	772.09	4,122,841.44	1,087,646.43
September 2029	772.09	4,039,163.29	1,055,224.26
October 2029	772.09	3,957,119.89	1,023,752.18
November 2029	772.09	3,876,680.06	993,202.70
December 2029	772.09	3,797,813.24	963,549.11
January 2030	772.09	3,720,489.41	934,765.47
February 2030	772.09	3,644,679.13	906,826.60
March 2030	772.09	3,570,353.52	879,708.02
April 2030	772.09	3,497,484.22	853,385.96
May 2030	772.09	3,426,043.43	827,837.33
June 2030	772.09	3,356,003.83	803,039.71
July 2030	772.09	3,287,338.67	778,971.31
August 2030	772.09	3,220,021.65	755,610.98
September 2030	772.09	3,154,026.99	732,938.17
October 2030	772.09	3,089,329.39	710,932.93
November 2030	772.09	3,025,904.03	689,575.85
December 2030	772.09	2,963,726.55	668,848.13
January 2031	772.09	2,902,773.05	648,731.47
February 2031	772.09	2,843,020.08	629,208.11
March 2031	772.09	2,784,444.62	610,260.80
April 2031	772.09	2,727,024.12	591,872.78
May 2031	772.09	2,670,736.40	574,027.79
June 2031	772.09	2,615,559.75	556,710.02
July 2031	772.09	2,561,472.82	539,904.12

Distribution Date	Classes ND and NZ (in the aggregate)	Classes AF, KA and KL (in the aggregate)	Classes BF, KB and YK (in the aggregate)
August 2031	\$ 772.09	\$ 2,508,454.71	\$ 523,595.18
September 2031	772.09	2,456,484.88	507,768.73
October 2031	772.09	2,405,543.19	492,410.71
November 2031	772.09	2,355,609.88	477,507.46
December 2031	772.09	2,306,665.56	463,045.72
January 2032	772.09	2,258,691.20	449,012.61
February 2032	772.09	2,211,668.13	435,395.62
March 2032	772.09	2,165,578.06	422,182.61
April 2032	772.09	2,120,403.00	409,361.77
May 2032	772.09	2,076,125.33	396,921.66
June 2032	772.09	2,032,727.75	384,851.14
July 2032	772.09	1,990,193.30	373,139.42
August 2032	772.09	1,948,505.33	361,775.99
September 2032	772.09	1,907,647.51	350,750.67
October 2032	772.09	1,867,603.80	340,053.58
November 2032	772.09	1,828,358.49	329,675.08
December 2032	772.09	1,789,896.16	319,605.87
January 2033	772.09	1,752,201.67	309,836.87
February 2033	772.09	1,715,260.18	300,359.28
March 2033	772.09	1,679,057.12	291,164.57
April 2033	772.09	1,643,578.20	282,244.44
May 2033	772.09	1,608,809.41	273,590.82
June 2033	772.09	1,574,736.99	265,195.90
July 2033	772.09	1,541,347.44	257,052.08
August 2033	772.09	1,508,627.54	249,151.98
September 2033	772.09	1,476,564.30	241,488.44
October 2033	772.09	1,445,144.98	234,054.50
November 2033	772.09	1,414,357.08	226,843.42
December 2033	772.09	1,384,188.34	219,848.64
January 2034	772.09	1,354,626.73	213,063.78
February 2034	772.09	1,325,660.46	206,482.66
March 2034	772.09	1,297,277.95	200,099.29
April 2034	772.09	1,269,467.84	193,907.84
May 2034	772.09	1,242,219.00	187,902.64
June 2034	772.09	1,215,520.49	182,078.21
July 2034	772.09	1,189,361.61	176,429.20
August 2034	772.09	1,163,731.83	170,950.44
September 2034	772.09	1,138,620.84	165,636.90
October 2034	772.09	1,114,018.51	160,483.70
November 2034	772.09	1,089,914.93	155,486.09
December 2034		1,066,300.36	150,639.49
January 2035	772.09		
	772.09	1,043,165.24	145,939.41
February 2035	772.09	1,020,500.20	141,381.51 136,961.60
March 2035	772.09	998,296.05	,
April 2035	772.09	976,543.79	132,675.58
May 2035	772.09	955,234.55	128,519.48
June 2035	772.09	934,359.68	124,489.45

Distribution Date	Classes ND and NZ (in the aggregate)	Classes AF, KA and KL (in the aggregate)	Classes BF, KB and YK (in the aggregate)			
July 2035	\$ 772.09	\$ 913,910.65	\$ 120,581.74			
August 2035	772.09	893,879.13	116,792.73			
September 2035	772.09	874,256.92	113,118.89			
October 2035	772.09	855,036.00	109,556.80			
November 2035	772.09	836,208.48	106,103.13			
December 2035	772.09	817,766.65	102,754.66			
January 2036	772.09	799,702.91	99,508.26			
February 2036	772.09	782,009.85	96,360.90			
March 2036	772.09	764,680.16	93,309.61			
April 2036	772.09	747,706.69	90,351.54			
May 2036	772.09	731,082.44	87,483.90			
June 2036	772.09	714,800.51	84,704.00			
July 2036	772.09	698,854.16	82,009.22			
August 2036	772.09	683,236.78	79,397.02			
September 2036	772.09	667,941.86	76,864.93			
October 2036	772.09	652,963.05	74,410.55			
November 2036	772.09	638,294.09	72,031.55			
December 2036	772.09	623,928.87	69,725.69			
January 2037	772.09	609,861.36	67,490.77			
February 2037	772.09	596,085.69	65,324.67			
March 2037	772.09	582,596.07	63,225.31			
April 2037	772.09	569,386.84	61,190.71			
May 2037	772.09	556,452.43	59,218.91			
June 2037	772.09	543,787.39	57,308.03			
July 2037	772.09	531,386.38	55,456.24			
August 2037	772.09	519,244.15	53,661.76			
September 2037	772.09	507,355.57	51,922.86			
October 2037	772.09	495,715.58	50,237.88			
November 2037	772.09	484,319.24	48,605.19			
December 2037	772.09	473,161.71	47,023.21			
January 2038	772.09	462,238.21	45,490.41			
February 2038	772.09	451,544.09	44,005.31			
March 2038	772.09	441,074.78	42,566.47			
April 2038	772.09	430,825.78	41,172.48			
May 2038	772.09	420,792.69	39,822.00			
June 2038	772.09	410,971.20	38,513.71			
July 2038	772.09	401,357.09	37,246.33			
August 2038	772.09	391,946.19	36,018.61			
September 2038	772.09	382,734.43	34,829.36			
October 2038	772.09	373,717.84	33,677.42			
November 2038	772.09	364,892.50	32,561.64			
December 2038	772.09	356,254.56	31,480.92			
January 2039	772.09	347,800.27	30,434.21			
February 2039	772.09	339,525.93	29,420.47			
March 2039	772.09	331,427.93	28,438.69			
April 2039	772.09	323,502.72	27,487.90			
May 2039	772.09	315,746.83	26,567.15			

Distribution Date	Classes ND and NZ (in the aggregate)	Classes AF, KA and KL (in the aggregate)	Classes BF, KB and YK (in the aggregate)
June 2039	\$ 772.09	\$ 308,156.83	\$ 25,675.53
July 2039	772.09	300,729.38	24,812.16
August 2039	772.09	293,461.21	23,976.15
September 2039	772.09	286,349.10	23,166.69
October 2039	772.09	279,389.90	22,382.95
November 2039	772.09	272,580.50	21,624.15
December 2039	772.09	265,917.89	20,889.52
January 2040	772.09	259,399.09	20,178.33
February 2040	772.09	253,021.18	19,489.84
March 2040	772.09	246,781.31	18,823.38
April 2040	772.09	240,676.67	18,178.25
May 2040	772.09	234,704.52	17,553.80
June 2040	772.09	228,862.17	16,949.39
July 2040	772.09	223,146.97	16,364.42
August 2040	772.09	217,556.33	15,798.27
September 2040	772.09	212,087.72	15,250.36
October 2040	772.09	206,738.64	14,720.14
November 2040	772.09	201,506.67	14,207.05
December 2040	772.09	196,389.40	13,710.56
January 2041	772.09	191,384.48	13,230.17
February 2041	772.09	186,489.63	12,765.36
March 2041	772.09	181,702.59	12,315.67
April 2041	772.09	177,021.14	11,880.60
May 2041	772.09	172,443.13	11,459.73
June 2041	772.09	167,966.42	11,052.59
July 2041	772.09	163,588.94	10,658.76
August 2041	772.09	159,308.64	10,277.83
September 2041	772.09	155,123.53	9,909.40
October 2041	772.09	151,031.64	9,553.07
November 2041	772.09	147,031.05	9,208.46
December 2041	772.09	143,119.88	8,875.22
January 2042	772.09	139,296.27	8,552.97
February 2042	772.09	135,558.43	8,241.39
March 2042	772.09	131,904.56	7,940.12
April 2042	772.09	128,332.94	7,648.85
May 2042	772.09	124,841.85	7,367.27
June 2042	772.09	121,429.63	7,095.06
July 2042	772.09	118,094.64	6,831.94
August 2042	772.09	114,835.26	6,577.61
September 2042	772.09	111,649.93	6,331.80
October 2042	772.09	108,537.11	6,094.23
November 2042	772.09	105,495.27	5,864.65
December 2042	772.09	102,522.94	5,642.81
January 2043	772.09	99,618.67	5,428.45
February 2043	772.09	96,781.03	5,221.34
March 2043	772.09	94,008.62	5,021.25
April 2043	772.09	91,300.08	4,827.96
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Distribution Date	Classes ND and NZ (in the aggregate)			
May 2043	\$ 772.09	\$ 88,654.07	\$ 4,641.24	
June 2043	772.09	86,069.26	4,460.89	
July 2043	772.09	83,544.39	4,286.70	
August 2043	772.09	81,078.17	4,118.48	
September 2043	772.09	78,669.39	3,956.04	
October 2043	772.09	76,316.81	3,799.18	
November 2043	772.09	74,019.27	3,647.74	
December 2043	772.09	71,775.58	3,501.53	
January 2044	772.09	69,584.62	3,360.39	
February 2044	772.09	67,445.26	3,224.15	
March 2044	772.09	65,356.41	3,092.66	
April 2044	772.09	63,317.00	2,965.75	
May 2044	772.09	61,325.96	2,843.29	
June 2044	772.09	59,382.28	2,725.13	
July 2044	772.09	57,484.95	2,611.13	
August 2044	772.09	55,632.96	2,501.15	
September 2044	772.09	53,825.36	2,395.06	
October 2044	772.09	52,061.19	2,292.73	
November 2044	772.09	50,339.53	2,194.05	
December 2044	772.09	48,659.45	2,098.88	
January 2045	772.09	47,020.07	2,007.13	
February 2045	772.09	45,420.51	1,918.67	
March 2045	772.09	43,859.92	1,833.39	
April 2045	772.09	42,337.44	1,751.20	
May 2045	772.09	40,852.27	1,671.98	
June 2045	772.09	39,403.58	1,595.64	
July 2045	772.09	37,990.60	1,522.09	
August 2045	772.09	36,612.54	1,451.24	
September 2045	772.09	35,268.65	1,382.98	
October 2045	772.09	33,958.18	1,317.24	
November 2045	772.09	32,680.41	1,253.94	
December 2045	772.09	31,434.62	1,192.98	
January 2046	772.09	30,220.12	1,134.29	
February 2046	772.09	29,036.22	1,077.81	
March 2046	772.09	27,882.25	1,023.44	
April 2046	772.09	26,757.54	971.12	
May 2046	772.09	25,661.47	920.79	
June 2046	772.09	24,593.40	872.37	
July 2046	772.09	23,552.71	825.79	
August 2046	772.09	22,538.79	781.01	
September 2046	772.09	21,551.06	737.95	
October 2046	772.09	20,588.93	696.55	
November 2046	772.09	19,651.85	656.77	
December 2046	772.09	18,739.24	618.54	
January 2047	772.09	17,850.56	581.81	
February 2047	772.09	16,985.29	546.53	
March 2047	772.09	16,142.89	512.64	
MaiCil 204/	//2.09	10,142.09	)14.04	

Distribution Date	Classes ND and N (in the aggregate		1	Classes AF, KA and KL the aggregate)	Classes BF, KB and YK (in the aggregate)		
April 2047	\$	772.09	\$	15,322.86	\$	480.11	
May 2047		772.09		14,524.70		448.89	
June 2047		772.09		13,747.91		418.92	
July 2047		772.09		12,992.01		390.17	
August 2047		772.09		12,256.54		362.58	
September 2047		772.09		11,541.03		336.13	
October 2047		772.09		10,845.02		310.77	
November 2047		772.09		10,168.09		286.47	
December 2047		772.09		9,509.79		263.18	
January 2048		772.09		8,869.70		240.87	
February 2048		772.09		8,247.41		219.50	
March 2048		772.09		7,642.51		199.05	
April 2048		772.09		7,054.60		179.47	
May 2048		772.09		6,483.29		160.74	
June 2048		772.09		5,928.20		142.83	
July 2048		772.09		5,388.96		125.71	
August 2048		772.09		4,865.20		109.34	
September 2048		772.09		4,356.57		93.71	
October 2048		772.09		3,862.70		78.78	
November 2048		772.09		3,383.27		64.53	
December 2048		772.09		2,917.94		50.93	
January 2049		772.09		2,466.37		37.96	
February 2049		772.09		2,028.24		25.60	
March 2049		678.94		1,603.24		13.83	
April 2049		433.53		1,191.07		2.61	
May 2049		196.46		791.41		0.00	
June 2049		0.00		403.98		0.00	
July 2049		0.00		28.48		0.00	
August 2049 and thereafter		0.00		0.00		0.00	

## **Underlying Certificates**

Ginnie Mae I or II	==	==	П	П	П	П	П	П	П	П	П	П	П	П	ш
Weigned Average Loan Age of Mortgage Loans in months)(3)	( <del>4</del> )	^	5	2	9	5	6	2	5	5	32	4	3	(10)	7
Nendining Term to Maturity of Mortgage Loans (in months)(3) (i	(4)	351	353	358	9	355	6	355	353	355	328	354	356	(10)	352
Average Coupon of Mortgage Loans(3)	3 991%	4.025	3.991	3.991	9	4.540	6	4.058	4.517	4.503	4.436	4.071	4.057	(10)	5.905
Approximate Weighted Average Percentage Coupon of of Class Mortgage in Trust Loans(3)	100.00000000000000000000000000000000000	100.0000000000	100,0000000000	100,0000000000	100,00000000000	100,0000000000	16.9438661997	100,00000000000	100,0000000000	45.2000000000	100,00000000000	100.00000000000	100,00000000000	17.6641216733	53.1880057587
Principal or Notional Balance in Trust	\$44,661,406	590,636	4,335,871	6,765,789	20,602,874	6,101,007	3,951,044	1,035,979	691,500	33,724,768	3,245,000	921,614	614,287	3,381,942	7,832,114
Underlying Certificate Factor(2)	0.89322813	0.23941506	0.96847145	1.00291666	0.80106200	0.98195257	0.98776110	1.00000000	1.000000000	0.99483093	1.000000000	1.000000000	1.00000000	1.00000000	0.94362825
Original Principal or Notional Balance of Class	\$50,000,000	2,466,995	4,477,025	6,746,113	25,719,450	6,213,139	23,607,363	1,035,979	691,500	75,000,000	3,245,000	921,614	614,287	19,145,826	15,605,022
Principal Type(1)	SC/SEQ/AD	SUP	SUP	SUP	NTL(SC/PT)	NTL(PT)	NTL(PT)	PAC/AD	PAC/AD	NTL(PT)	PAC/AD	PACI	SEQ	SEQ	NTL(SUP)
Final Distribution Date	March 2041 July 2049	July 2049	August 2049	October 2049	February 2048	August 2049	July 2049	October 2049	October 2049	September 2049	January 2048	September 2049	September 2049	September 2049	July 2049
Interest Type(1)					$\geq$										
Interest Rate	3.00%	3.50	3.50	3.50	6	4.00	6	3.00	2.50	6	3.00	2.50	2.50	0.00	6
CUSIP Number	38381VTB6	38381XEK8	38381YDN1	38382AJX4	38380WBB4	38381XZ33	38381XSK3	38382ADK8	38382AGN9	38381YN91	38380UWR0	38381YSR6	38381YP40	38381YM92	38381XLQ7
Issue Date	May 30, 2019 July 30, 2019	July 30, 2019	August 30, 2019	October 30, 2019	April 30, 2018	August 30, 2019	July 30, 2019	October 30, 2019	October 30, 2019	September 30, 2019	January 30, 2018	September 30, 2019	September 30, 2019	September 30, 2019	July 30, 2019
Class	BA(4)	IZ(5)	ZP(5)	DZ(5)	WA(5)(6)	MI(5)	SQ(8)(9)	PB	ΡΓ	SB(5)	PB	DB	LY	(01)(8)(2)	YS
Series	2019-057	2019-090	2019-098	2019-123	2018-055	2019-103	2019-085	2019-133	2019-126	2019-112	2018-011	2019-120	2019-112	2019-119	2019-085
Issuer	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae	Ginnie Mae
Trust Asset Group or Subgroup		1 21													

- As defined under "Class Types" in Appendix I to the Base Offering Circular.
  - Underlying Certificate Factors are as of November 2019. 283
    - Based on information as of November 2019.
- Ginnie Mae 2019-057 Class BA is backed by a previously issued REMIC certificate, Class AB from Ginnie Mae 2018-128. Ginnie Mae 2018-128 Class AB is in turn backed by previously issued REMIC certificates, Class B from Ginnie Mae 2010-077 and Class DB from Ginnie Mae 2010-087, and a previously issued MX certificate, Class B from Ginnie Mae 2011-037. These previously issued certificates are backed by certain mortgage loans whose approximate weighted average characteristics are as follows:

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	114	112	113
Weighted Average Remaining Term to Mahurity of Mortgage Loans (in months)(3)	237	238	238
Approximate Weighted Average Coupon of Mortgage Loans(3)	4.927%	4.907	4.861
Class	В	DB	В
Series	2010-077	2010-087	2011-037

- More than 10% of the Mortgage Loans underlying this Underlying Certificate may be higher balance Mortgage Loans. See "Risk Factors" in this Supplement. (2)
- Ginnie Mae 2018-055 Class WA is backed by previously issued REMIC certificates, Class IB from Ginnie Mae 2016-129 and Class SH from Ginnie Mae 2018-018, and a previously issued MX certificate, Class IW from Ginnie Mae 2016-163. Ginnie Mae 2016-129 Class IB is in turn backed by a previously issued MX certificate, Class QI from Ginnie Mae 2012-143. These previously issued certificates are backed by cer-9

tain mortgage loans whose approximate weighted average characteristics are as follows:

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	84	36	22
Approximate Weighted Average Remaining Term to Maturity of Mortgage Loans (in months)(3)	266	320	335
Approximate Weighted Average Coupon of Mortgage Loans(3)	3.385%	3.362	4.459
Class	ΙÒ	IW	SH
Series	2012-143	2016-163	2018-018

The Interest Rate will be calculated as described under "Terms Sheet — Interest Rates" in the related Underlying Certificate Disclosure Document. 0

MX Class.

Ginnie Mae 2019-085 Class SQ is an MX Class that is derived from REMIC Classes of seperate Security Groups, Class SP from Security Group 10 and Class HS from Security Group 11, which are backed by certain mortgage loans whose approximate weighted average characteristics are as follows: ® ®

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	ν	9
Approximate Approximate Average Remaining Term to Maturity of Mortgage Loans (in	354	354
Approximate Weighted Average Coupon of Mortgage Loans(3)	5.525%	5.582
Class	HS	SP
Series	2019-085	2019-085

(10) Ginnie Mae 2019-119 Class KO is an MX Class that is related to separate Trust Asset Subgroups, which are backed by certain mortgage loans whose approximated weighted average characteristics are as follows:

Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3)	9	4	4	8	10	6
Average Remaining Term to Maturity of Mortgage Loans (in months)(3)	347	352	352	349	344	347
Approximate Weighted Average Coupon of Mortgage Loans(3)	3.500%	4.000	4.500	5.000	5.500	00009
Trust Asset Subgroup	6A	6B	9C	Q9	6E	6F
Series	2019-119	2019-119	2019-119	2019-119	2019-119	2019-119



\$634,023,445

**Government National Mortgage Association** 

## **GINNIE MAE**®

Guaranteed REMIC
Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2019-140

OFFERING CIRCULAR SUPPLEMENT
November 22, 2019

Citigroup Academy Securities