

\$1,858,961,986

Government National Mortgage Association GINNIE MAE®

Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2019-115

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 Ginnie Mae 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-11 which highlights some of these risks.

The Sponsor and the Co-Sponsor will offer the securities from time to time in negotiated transactions at varying prices. We expect the closing date to be September 30, 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 CA CB CCD CZ CZ FA PA SA SA SA SA SA SA S	\$ 10,431,000 4,613,000 500,000 5,000 38,750,000 100,701,000 38,750,000	2.5% 2.5 2.5 2.5 (5) 2.5 (5)	SUP/AD SCH SUP SUP PT PAC NTL (PT)	FIX FIX FIX FIX/Z FIX/Z FIX FIX INV/IO	38381 YTR5 38381 YTS3 38381 YTT1 38381 YTU8 38381 YTV6 38381 YTW4 38381 YTX2	September 2045 September 2045 September 2045 September 2045 September 2045 September 2045 September 2045
Security Group 2 DB FD SD ZD	205,899,375 123,539,625 123,539,625 35,561,000	2.5 (5) (5) 4.0	PAC/AD PAC/AD NTL (PAC/AD) SUP	$FIX \ FLT \ INV/IO \ FIX/Z$	38381YTY0 38381YTZ7 38381YUA0 38381YUB8	September 2049 September 2049 September 2049 September 2049
Security Group 3	72,088,125 43,252,875 43,252,875 33,600,000 33,600,000 19,059,000	2.5 (5) (5) (5) (5) 4.0	PAC/AD PAC/AD NTL (PAC/AD) PT NTL (PT) SUP	FLX FLT INV/IO FLT INV/IO FIX/Z	38381 YUC6 38381 YUD4 38381 YUE2 38381 YUF9 38381 YUG7 38381 YUH5	September 2049 September 2049 September 2049 September 2049 September 2049 September 2049
Security Group 4 F	100,000,000 74,254,164 25,745,836	(5) (5) (5)	PT NTL (PT) NTL (PT)	FLT INV/IO INV/IO	38381 Y U J 1 38381 Y U K 8 38381 Y U L 6	September 2049 September 2049 September 2049
Security Group 5 FG	37,929,250 113,787,750 37,929,250 17,283,000	(5) 2.5 (5) 3.5	PAC/AD PAC/AD NTL (PAC/AD) SUP	FLT FIX INV/IO FIX/Z	38381 Y UM4 38381 Y UN2 38381 Y UP7 38381 Y UQ5	September 2045 September 2045 September 2045 September 2045
Security Group 6 FH	77,892,000 129,820,000 77,892,000 22,288,000	(5) 2.5 (5) 4.0	PAC/AD PAC/AD NTL (PAC/AD) SUP	$FLT \ FIX \ INV/IO \ FIX/Z$	38381 YUR3 38381 YUS1 38381 YUT9 38381 YUU6	September 2049 September 2049 September 2049 September 2049
Security Group 7 FJ JA SJ(1) ZJ	57,221,000 171,663,000 57,221,000 25,967,422	(5) 2.5 (5) 3.5	PAC/AD PAC/AD NTL (PAC/AD) SUP	$FLT \ FIX \ INV/IO \ FIX/Z$	38381YUV4 38381YUW2 38381YUX0 38381YUY8	September 2049 September 2049 September 2049 September 2049
Security Group 8 FK(1)	96,188,000 120,235,000 96,188,000 23,332,579	(5) 2.0 (5) 4.0	PAC/AD PAC/AD NTL (PAC/AD) SUP	$FLT \ FIX \ INV/IO \ FIX/Z$	38381YUZ5 38381YVA9 38381YVB7 38381YVC5	September 2049 September 2049 September 2049 September 2049
Security Group 9 UE(1) UF(1) US(1) ZU	89,810,667 44,905,333 44,905,333 15,284,000	2.0 (5) (5) 3.5	PAC/AD PAC/AD NTL (PAC/AD) SUP	FIX FLT INV/IO FIX/Z	38381 YVD3 38381 YVE1 38381 YVF8 38381 YVG6	September 2049 September 2049 September 2049 September 2049
Security Group 10 NF NI	27,354,985 27,354,985	(5) (5)	PT NTL(PT)	FLT/WAC/DLY WAC/IO/DLY	38381YVH4 38381YVJ0	April 2048 April 2048
Residual RR	0	0.0	$\mathcal{N}PR$	$\mathcal{N}PR$	38381 YVK7	September 2049

- $(1) \quad \textit{These Securities may be exchanged for MX Securities described in Schedule I to this Supplement.}$
- (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.

Morgan Stanley

Great Pacific Securities

AVAILABLE INFORMATION

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

- this Offering Circular Supplement (this "Supplement") and
- the Base Offering Circular.

The Base Offering Circular is 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.

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

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TERMS SHEET

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

Sponsor: Morgan Stanley & Co. LLCCo-Sponsor: Great Pacific SecuritiesTrustee: U.S. Bank National Association

Tax Administrator: The Trustee **Closing Date:** September 30, 2019

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

Business Day thereafter, commencing in October 2019.

Trust Assets:

Trust Asset Group or Subgroup ⁽¹⁾	Trust Asset Type	Certificate Rate	Original Term To Maturity (in years)		
1	Ginnie Mae II	3.500%	30		
2	Ginnie Mae II	4.000%	30		
3	Ginnie Mae II	4.500%	30		
4A	Ginnie Mae II	4.000%	30		
4B	Ginnie Mae II	4.000%	30		
5	Ginnie Mae II	3.500%	30		
6	Ginnie Mae II	4.000%	30		
7	Ginnie Mae II	3.500%	30		
8	Ginnie Mae II	4.000%	30		
9	Ginnie Mae II	3.500%	30		
10	Ginnie Mae II ⁽²⁾	(3)	30		

⁽¹⁾ The Group 4 Trust Assets consist of subgroups, Subgroup 4A and Subgroup 4B (each, a "Subgroup").

⁽²⁾ The Group 10 Trust Assets consist of adjustable rate Ginnie Mae II MBS Certificates.

⁽³⁾ Each Ginnie Mae Certificate included in Trust Asset Group 10 has an initial fixed rate period, after which it bears interest at a Certificate Rate, adjusted annually, equal to One Year Treasury Index ("CMT") or one-year LIBOR ("One-Year LIBOR"), as applicable (the "Index") plus a margin indicated on Exhibit A (each, a "Certificate Margin"), subject to annual and lifetime adjustment caps and floors, which may limit whether the Certificate Rate for each Trust Asset remains at the Index plus the applicable Certificate Margin. The annual and lifetime adjustment caps and floors for the Group 10 Trust Assets are set forth in Exhibit A to this Supplement. The Group 10 Trust Assets have Certificate Rates ranging from 1.500% to 5.125% as of September 1, 2019, as identified in Exhibit A. For the Group 10 Trust Assets, most of the initial fixed rate periods have expired. See "The Trust Assets — The Trust MBS" in this Supplement.

Security Groups: This series of Securities consists of multiple Security Groups (each, a "Group"), as shown on the front cover of this Supplement and on Schedule I to this Supplement. Except in the case of certain MX Classes in Groups 5, 6, 7 and 8, payments on each Group will be based solely on payments on the Trust Asset Group with the same numerical designation.

Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 5, 6, 7, 8 and 9 Trust Assets⁽¹⁾:

Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate ⁽²⁾
Group 1 Trust Assets		_	(- (
\$155,000,000	355	3	4.040%
Group 2 Trust Assets			
\$365,000,000	357	2	4.530%
Group 3 Trust Assets			
\$168,000,000	358	1	4.990%
Subgroup 4A Trust Assets			
\$25,745,836	359	1	4.580%
Subgroup 4B Trust Assets			
\$74,254,164	359	1	4.510%
Group 5 Trust Assets			
\$169,000,000	356	1	4.020%
Group 6 Trust Assets			
\$230,000,000	358	1	4.480%
Group 7 Trust Assets			
\$254,851,422	358	0	4.010%
Group 8 Trust Assets			
\$239,755,579	356	2	4.510%
Group 9 Trust Assets			
\$150,000,000	358	0	4.010%

⁽¹⁾ As of September 1, 2019.

The actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans underlying the Group 1, 2, 3, 4, 5, 6, 7, 8 and 9 Trust Assets will differ from the weighted averages shown above, perhaps significantly. See "The Trust Assets — The Mortgage Loans" in this Supplement.

Assumed Characteristics of the Mortgage Loans Underlying the Group 10 Trust Assets: The assumed characteristics of the Mortgage Loans underlying the Group 10 Trust Assets are identified in Exhibit A to this Supplement. There can be no assurance that the actual characteristics of the Mortgage Loans underlying the Group 10 Trust Assets will be the same as the assumed characteristics identified in

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

Exhibit A to this Supplement. More than 10% of the Mortgage Loans underlying the Group 10 Trust Assets may be higher balance Mortgage Loans. See "Risk Factors" in this Supplement.

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

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

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

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

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

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate		One-Month LIBOR for Minimum Interest Rate
Security Group 1						
FA	One-Month LIBOR + 0.45%	2.48588%	0.45%	6.50%	0	0.0000%
SA	6.05% - One-Month LIBOR	4.01412%	0.00%	6.05%	0	6.0500%
Security Group 2						
FD	One-Month LIBOR + 0.40%	2.43588%	0.40%	6.50%	0	0.0000%
SD	6.10% - One-Month LIBOR	4.06412%	0.00%	6.10%	0	6.1000%
Security Group 3						
EF	One-Month LIBOR + 0.40%	2.43588%	0.40%	6.50%	0	0.0000%
ES	6.10% - One-Month LIBOR	4.06412%	0.00%	6.10%	0	6.1000%
FE	One-Month LIBOR + 0.40%	2.43588%	0.40%	6.50%	0	0.0000%
SE	6.10% - One-Month LIBOR	4.06412%	0.00%	6.10%	0	6.1000%
Security Group 4						
F	One-Month LIBOR + 0.65%	2.68588%	0.65%	4.00%	0	0.0000%
S	3.35% - One-Month LIBOR	1.31412%	0.00%	3.35%	0	3.3500%
WS	3.35% - One-Month LIBOR	1.31412%	0.00%	3.35%	0	3.3500%
YS	3.35% - One-Month LIBOR	1.31412%	0.00%	3.35%	0	3.3500%
Security Group 5						
FG	One-Month LIBOR + 0.45%	2.48588%	0.45%	6.50%	0	0.0000%
SG	6.05% - One-Month LIBOR	4.01412%	0.00%	6.05%	0	6.0500%
Security Group 6						
	One-Month LIBOR + 0.40%		0.40%	6.50%	0	0.0000%
SH	6.10% - One-Month LIBOR	4.06412%	0.00%	6.10%	0	6.1000%
Security Group 7						
3	One-Month LIBOR + 0.45%			6.50%	0	0.0000%
SJ	6.05% — One-Month LIBOR	4.01412%	0.00%	6.05%	0	6.0500%

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate		One-Month LIBOR for Minimum Interest Rate
Security Groups 5 and 7						
SY	6.05% - One-Month LIBOR	4.01412%	0.00%	6.05%	0	6.0500%
Security Group 8						
FK	One-Month LIBOR + 0.40%	2.43588%	0.40%	6.50%	0	0.0000%
SK	6.10% - One-Month LIBOR	4.06412%	0.00%	6.10%	0	6.1000%
Security Groups 6 and 8						
SW	6.10% - One-Month LIBOR	4.06412%	0.00%	6.10%	0	6.1000%
Security Group 9						
UF	One-Month LIBOR + 0.45%	2.48588%	0.45%	6.50%	0	0.0000%
US	6.05% - One-Month LIBOR	4.01412%	0.00%	6.05%	0	6.0500%
Security Group 10						
NF	One-Month LIBOR + 0.40%	2.43588%	0.40%	(3)	19	0.0000%

- (1) One-Month LIBOR will be established on the basis of the ICE LIBOR method, as described under "Description of the Securities Interest Distributions Floating Rate and Inverse Floating Rate Classes" in this Supplement.
- (2) The initial Interest Rate will be in effect during the first Accrual Period; the Interest Rate will adjust monthly thereafter.
- (3) The maximum rate for Class NF for any Accrual Period is the Weighted Average Certificate Rate ("WACR") of the Group 10 Trust Assets.

Class NI is a Weighted Average Coupon Class that will accrue interest during each Accrual Period at a per annum Interest Rate equal to the WACR of the Group 10 Assets less the Interest Rate for Class NF for that Accrual Period. The approximate initial Interest Rate for Class NI, which will be in effect for the first Accrual Period, is 0.94104%.

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 and the CZ Accrual Amount will be allocated as follows:

- The CZ Accrual Amount, sequentially, to CA and CZ, in that order, until retired
- The Group 1 Principal Distribution Amount, concurrently, as follows:
 - 1. 25% to FA, until retired
 - 2. 75% in the following order of priority:
 - a. To PA, until reduced to its Scheduled Principal Balance for that Distribution Date
 - b. To CB, until reduced to its Scheduled Principal Balance for that Distribution Date
 - c. Sequentially, to CA, CZ and CD, in that order, until retired
 - d. To CB, without regard to its Scheduled Principal Balance, until retired
 - e. To PA, without regard to its Scheduled Principal Balance, until retired

SECURITY GROUP 2

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

- 1. Concurrently, to DB and FD, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZD, until retired
- 3. Concurrently, to DB and FD, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 3

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

- The ZE Accrual Amount in the following order of priority:
- 1. Concurrently, to EA and EF, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZE, until retired
- The Group 3 Principal Distribution Amount, concurrently, as follows:
 - 1. 20% to FE, until retired
 - 2. 80% in the following order of priority:
 - a. Concurrently, to EA and EF, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - b. To ZE, until retired
 - c. Concurrently, to EA and EF, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 4

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

SECURITY GROUP 5

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

- 1. Concurrently, to FG and GA, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZG, until retired
- 3. Concurrently, to FG and GA, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 6

The Group 6 Principal Distribution Amount and the ZH Accrual Amount will be allocated in the following order of priority:

- 1. Concurrently, to FH and HA, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZH, until retired
- 3. Concurrently, to FH and HA, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 7

The Group 7 Principal Distribution Amount and the ZJ Accrual Amount will be allocated in the following order of priority:

- 1. Concurrently, to FJ and JA, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZJ, until retired
- 3. Concurrently, to FJ and JA, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 8

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

- 1. Concurrently, to FK and KE, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZK, until retired
- 3. Concurrently, to FK and KE, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 9

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

- 1. Concurrently, to UE and UF, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZU, until retired
- 3. Concurrently, to UE and UF, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 10

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

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

	Structuring Ranges
PAC Classes	
DB and FD (in the aggregate)	150% PSA through 225% PSA
EA and EF (in the aggregate)	175% PSA through 300% PSA
FG and GA (in the aggregate)	140% PSA through 215% PSA
FH and HA (in the aggregate)	150% PSA through 225% PSA
FJ and JA (in the aggregate)	140% PSA through 215% PSA
FK and KE (in the aggregate)	150% PSA through 225% PSA
PA	140% PSA through 215% PSA
UE and UF (in the aggregate)	140% PSA through 215% PSA
Scheduled Class	
CB	160% PSA through 215% PSA

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

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

Class	Original Class Notional Balance	Represents Approximately
Security Group 1		
SA	\$ 38,750,000	100% of FA (PT Class)
Security Group 2		
SD	\$123,539,625	100% of FD (PAC/AD Class)
Security Group 3		
ES	\$ 43,252,875	100% of EF (PAC/AD Class)
SE	33,600,000	100% of FE (PT Class)
Security Group 4		
S	\$100,000,000	100% of F (PT Class)
WS	74,254,164	100% of the Subgroup 4B Trust Assets
YS	25,745,836	100% of the Subgroup 4A Trust Assets
Security Group 5		
SG	\$ 37,929,250	100% of FG (PAC/AD Class)
Security Group 6		
SH	\$ 77,892,000	100% of FH (PAC/AD Class)
Security Group 7		
SJ	\$ 57,221,000	100% of FJ (PAC/AD Class)
Security Groups 5 and 7		
SY	\$ 95,150,250	100% of FG and FJ (in the aggregate) (PAC/AD Classes)

Class	Original Class Notional Balance	Represents Approximately
Security Group 8		
SK	\$ 96,188,000	100% of FK (PAC/AD Class)
Security Groups 6 and 8		
SW	\$ 77,892,000	100% of FH (PAC/AD Class)
	81,158,625	84.375% of FK (PAC/AD Class)
	\$159,050,625	
Security Group 9		
US	\$ 44,905,333	100% of UF (PAC/AD Class)
Security Group 10		
NI	\$ 27,354,985	100% of NF (PT Class)

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

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

RISK FACTORS

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

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

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

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

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

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

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

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

 you bought your securities at a discount and principal payments are slower than you expected.

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

The adjustable rate mortgage loans bave features of fixed rate mortgage loans and adjustable rate mortgage loans. The adjustable rate mortgage loans underlying the group 10 trust assets have initial fixed rate periods, most of which have expired. During this period, these mortgage loans may exhibit general payment characteristics associated with fixed rate mortgages. After the initial fixed rate period expires, these mortgage loans will adjust annually, subject to annual and lifetime adjustment caps and floors. During this period, these mortgage loans may exhibit general payment characteristics associated with adjustable rate mortgage loans.

Adjustable rate mortgage loans may exhibit general prepayment characteristics that are different than those of fixed rate mortgage loans. In general, as prevailing mortgage interest rates decline, borrowers with fixed rate mortgage loans are more likely to refinance their current, higher rate mortgages, which may result in faster prepayment rates. Additionally, as prevailing mortgage interest rates rise, borrowers with fixed rate mortgage loans are less likely to refinance their current, lower rate mortgages, which may result in slower prepayment rates. In contrast, as prevailing mortgage interest rates decline, borrowers with adjustable rate mortgage loans are less likely to refinance their current mortgages, which may result in slower prepayment rates. Additionally, as prevailing mortgage interest rates rise, borrowers with adjustable rate mortgage loans are more likely to refinance their current mortgages, which may result in faster prepayment rates. Finally, increases in prevailing mortgage interest rates may result in increases in the required monthly payments on adjustable rate mortgage loans. This may result in higher default rates on adjustable rate mortgage loans which could lead to faster prepayment rates and reduce the yield on the related securities.

Adjustable rate mortgages with initial fixed rate periods may be more likely to be refinanced or become delinquent than other mortgage loans. The adjustable rate mortgage loans underlying the group 10 trust assets have initial fixed rate periods, most of which have expired. After the fixed rate period, the mortgage rates may increase at the first interest rate change date and on each annual reset date thereafter, subject to annual and lifetime adjustment caps and floors. Borrowers may be more likely to refinance these mortgage loans before a rate increase becomes effective. If a borrower is unable to refinance such a mortgage loan and interest rates rise, particularly after the initial fixed rate period, the borrower may find it increasingly difficult to remain current in its scheduled monthly payments following the increase in the monthly payment amount. This may result in higher default rates on adjustable rate mortgage loans which could lead to faster prepayment rates and reduce the yield on the related securities.

After the initial fixed rate period of the mortgage loans underlying the group 10 trust assets, the mortgage rates on such mortgage loans adjust annually based on CMT or one-year LIBOR, as applicable, the level of which will affect the yield on the related securities. After any applicable initial fixed rate period of the mortgage loans underlying the group 10 trust assets, the yield on the related securities depends, in part, on the levels of CMT and one-year LIBOR, as applicable. The index applicable to each mortgage loan underlying a group 10 trust asset will be determined annually and the rate of such index used with respect to the mortgage loans underlying the group 10 trust assets will not necessarily reflect current levels of such index. If the indices perform differently from what you expect, the yield on your securities may be lower than you expect. Lower levels of the indices will generally reduce the weighted average certificate rate on the group 10 trust assets, which will reduce or cap the interest rate on the related securities. You should bear in mind that the timing of changes in the level of the indices may affect your yield: generally, the earlier a change, the greater the

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

Adjustable rate mortgage loans are subject to certain caps, which may limit the amount of interest payable on such mortgage loans and may limit the WACR on the group 10 trust assets and the interest rates on the related securities after any applicable initial fixed rate period of the related mortgage loans. After any applicable initial fixed rate period of the mortgage loans underlying the group 10 trust assets, if the applicable index increases to a sufficiently high level, the mortgage rates on such mortgage loans may be limited by annual and lifetime adjustment caps. As a result, the WACR on the group 10 trust assets, as well as the interest rates on the related securities, may be limited. The application of any caps on the mortgage loans may significantly impact the interest rate on class NI because the interest entitlement of such class of securities is entirely dependent on the excess of the WACR of the group 10 trust assets, as applicable, over the interest rate applicable to class NF.

The mortgage rate index for the mortgage loans underlying the group 10 trust assets is different than the interest rate index for the related securities, which may impact, perbaps significantly, the amount of interest distributable to the related securities after any applicable initial fixed rate period of the related mortgage loans. CMT or one-year LIBOR is the mortgage rate index for the mortgage loans underlying the group 10 trust assets and one-month LIBOR is the interest rate index for the related securities. Because these indices are determined in a different manner and at different times, and because the certificate rates on the group 10 trust assets adjust annually after any applicable initial fixed rate period of the related mortgage loans and the interest rates on the related securities adjust monthly, there may be a mismatch between the certificate rates on the group 10 trust assets and the interest rates on the related securities. If the indices for the group 10 trust assets are lower than one-month LIBOR for the related securities for any accrual period, interest accruals with respect to the related

notional class will be reduced because such class is entitled to receive the excess of interest accrued in respect of the group 10 trust assets over the interest distributable to the related floating rate class. In addition, if the indices for the group 10 trust assets are significantly lower than one-month LIBOR for the related securities for any accrual period, interest accruing on the related floating rate class will be reduced because the interest rate on such class is capped at a rate equal to the WACR of the group 10 trust assets. In the event that the indices for the group 10 trust assets are higher than one-month LIBOR for the related securities, interest accruing on the related floating rate class will not be affected but interest accruals with respect to the related notional class will be increased. Because the indices on the group 10 trust assets adjust annually after the initial fixed rate period of the related mortgage loans but the index on the related securities will adjust monthly, this effect could be magnified during periods of significant volatility of short-term interest rates.

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 one-month LIBOR will affect the yields on the floating rate and inverse floating rate securities and the class NI securities. If one-month LIBOR performs differently from what you expect, the yield on your securities may be lower than you expect. Lower levels of one-month LIBOR will generally reduce the yield on floating rate securities; higher levels of one-month LIBOR will generally reduce the yield on the inverse floating rate securities and the class NI securities. You should bear in mind that the timing of changes in the level of onemonth LIBOR may affect your yield: generally, the earlier a change, the greater the effect on your yield. It is doubtful that one-month 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 and scheduled classes, the related support classes will not receive any principal distribution on that date (other than from any applicable accrual amount). If prepayments result in principal distributions on any distribution date greater than the amount needed to produce scheduled payments on the related PAC and scheduled classes for that

distribution date, this excess will be distributed to the related support classes.

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

Changes to, or elimination of, LIBOR could adversely affect your investment in the securities. On July 27, 2017, the U.K.-based Financial Conduct Authority (the announced its intention to cease sustaining LIBOR after 2021. The FCA indicated that it does not intend to sustain LIBOR through using its influence or legal powers beyond that date. It is possible that the ICE Benchmark Administration ("IBA") and the reference banks could continue to produce LIBOR on the current basis after 2021, if they are willing and able to do so, but it cannot be assured that LIBOR will survive in its current form, or at all. In the event IBA ceases to set or publish a rate for LIBOR, the Trustee shall propose a new index for approval by Ginnie Mae based upon comparable information and methodology. The Trustee shall propose an alternative index only if it receives an opinion of counsel that the selection of such alternative index will not cause the related Trust REMIC or REMICs to lose their classification as REMICs for United States federal income tax purposes. The effect of the FCA's decision not to sustain LIBOR, or, if changes are ultimately made to LIBOR, the effect of those changes, cannot be predicted. In addition, it cannot be predicted what alternative index would be chosen should this occur. If LIBOR in its current form does not survive or if an alternative index is chosen, the market value and/or liquidity of securities with distributions or interest rates based on LIBOR could be adversely affected.

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

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

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

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

prepayment or interest rate risk or that have been structured to meet the investment 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

ment 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 will evidence, directly or indirectly, Ginnie Mae Certificates.

The Trust MBS

The Group 1, 2, 3, 4, 5, 6, 7, 8 and 9 Trust Assets are either:

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

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

The Group 10 Trust Assets consist of adjustable rate Ginnie Mae II MBS Certificates guaranteed by Ginnie Mae. Each adjustable rate Ginnie Mae Certificate has an initial fixed rate period. After the initial fixed rate period, the Certificate Rate for each such adjustable rate Ginnie Mae Certificate will adjust annually to a rate equal to the sum, rounded to the nearest 1/8 of one percent, of (i) the Index and (ii) the Certificate Margin, subject to annual and lifetime adjustment caps and floors. The Index, the Certificate Margin and the annual and lifetime adjustment caps and floors for each such Ginnie Mae Certificate are set forth in Exhibit A to this Supplement. Adjustments to the Mortgage Rates will be made in the same manner as adjustments to the Certificate Rate. See "The Trust Assets — The Mortgage Loans" in this Supplement.

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 Mortgage Loans

The Mortgage Loans underlying the Group 1, 2, 3, 4, 5, 6, 7, 8 and 9 Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 5, 6, 7, 8 and 9 Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans underlying the Group 10 Trust Assets 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 or adjustable 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.

The Mortgage Loans underlying the Group 10 Trust Assets are adjustable rate mortgage loans with initial fixed rate periods. After the initial fixed rate period, the Mortgage Rate on each of these Mortgage Loans adjusts annually, rounded to the nearest 1/8 of one percent, based on the Index plus a specified margin (the "Mortgage Margin"), subject to annual and lifetime adjustment caps and floors. Ginnie Mae pooling specifications require that all adjustable rate Mortgage Loans backing a particular Ginnie Mae Certificate have the same index, first Mortgage Rate adjustment date, annual Mortgage Rate adjustment date, mortgage payment adjustment date and index reference date. One month after each Mortgage Rate adjustment date, the payment amount of the related Mortgage Loan will be reset so that the remaining principal balance of that Mortgage Loan will fully amortize in equal monthly payments over its remaining term to maturity, assuming its Mortgage Rate remains constant at the new rate. See "Risk Factors — Adjustable rate mortgage loans are subject to certain caps, which may limit the amount of interest payable on such mortgage loans and may limit the WACR on the group 10 trust assets and the interest rates on the related securities after the initial fixed rate period of the related mortgage loans" in this Supplement.

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 and, in the case of the Group 10 Trust Assets, Mortgage Margins and next Mortgage Rate adjustment dates of the Mortgage Loans underlying the Trust MBS. However, the actual remaining terms to maturity, loan ages and Mortgage Rates and, in the case of the Group 10 Trust Assets, Mortgage Margins and next Mortgage Rate adjustment dates of many of the Mortgage Loans will differ from the characteristics assumed, perhaps significantly. This will be the case even if the weighted average characteristics of the Mortgage Loans are the same as the assumed characteristics. Small differences in the characteristics of the Mortgage Loans can have a significant effect on the Weighted Average Lives and yields of the Securities. See "Risk Factors" and "Yield, Maturity and Prepayment Considerations" in this Supplement.

The Trustee Fee

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

GINNIE MAE GUARANTY

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

DESCRIPTION OF THE SECURITIES

General

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

Form of Securities

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

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

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

\$1 in excess of \$1,000. The Increased Minimum Denomination Classes will be issued in minimum denominations that equal \$100,000 in initial notional balance.

Distributions

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

Interest Distributions

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

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

Categories of Classes

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

Accrual Periods

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

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

Fixed Rate Classes

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

Floating Rate and Inverse Floating Rate Classes

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

We can provide no assurance that One-Month 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 One-Month LIBOR on the basis of the ICE LIBOR method for one-month U.S. dollar deposits will not change. Any change in One-Month LIBOR values resulting from any change in reporting or in the determination of One-Month LIBOR may cause One-Month 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 One-Month LIBOR and its calculation of the Interest Rates will be final except in the case of clear error. Investors can obtain One-Month 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, ZD, ZE, ZG, ZH, ZJ, ZK and ZU is an Accrual Class. Interest will accrue on the Accrual Classes and be distributed as described under "Terms Sheet — Accrual Classes" in this Supplement.

Principal Distributions

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

Categories of Classes

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

Notional Classes

The Notional Classes will not receive principal distributions. For convenience in describing interest distributions, the Notional Classes will have the original Class Notional Balances shown on the front

cover of this Supplement and on Schedule I to this Supplement. The Class Notional Balances will be reduced as shown under "Terms Sheet — Notional Classes" in this Supplement.

Residual Securities

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

Class Factors

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

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

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

Termination

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

Upon any termination of the Trust, the Holder of any outstanding Security (other than a Residual or Notional Class Security) will be entitled to receive that Holder's allocable share of the Class Principal

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

Modification and Exchange

All or a portion of the Classes of REMIC Securities specified on the front cover may be exchanged for a proportionate interest in the related MX Class shown on Schedule I to this Supplement. Similarly, all or a portion of the related MX Class may be exchanged for proportionate interests in the related Classes of REMIC Securities. 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.

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 2019-115. The Trustee may be contacted by telephone at (617) 603-6451 and by fax at (617) 603-6644.

A fee will be payable to the Trustee in connection with each exchange equal to $\frac{1}{32}$ of 1% of the outstanding principal balance (or notional balance) of the Securities surrendered for exchange (but not less than \$2,000 or more than \$25,000); provided, however, that no fee will be payable in respect of 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 or adjustable rate mortgage loans, generally:

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

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.

Accretion Directed Classes

Classes CA, DB, EA, EF, FD, FG, FH, FJ, FK, GA, HA, JA, KE, UE and UF are Accretion Directed Classes. The related Accrual Amounts will be applied to making principal distributions on those Classes Class as described in this Supplement. Each of Classes ES, SD, SG, SH, SJ, SK and US is a Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of the related Accretion Directed Class 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 Range.

Securities that Receive Principal on the Basis of Schedules

As described in this Supplement, each PAC and Scheduled 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 and Scheduled 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 and Scheduled Classes are as follows:

	Initial Effective Ranges
PAC Classes	
DB and FD (in the aggregate)	150% PSA through 225% PSA
EA and EF (in the aggregate)	175% PSA through 300% PSA
FG and GA (in the aggregate)	140% PSA through 215% PSA
FH and HA (in the aggregate)	150% PSA through 225% PSA
FJ and JA (in the aggregate)	140% PSA through 215% PSA
FK and KE (in the aggregate)	150% PSA through 225% PSA
PA	140% PSA through 215% PSA
UE and UF (in the aggregate)	140% PSA through 215% PSA
Scheduled Class	
CB	160% PSA through 215% PSA

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

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

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

Moreover, the related Mortgage Loans will not prepay at any *constant* rate. Non-constant prepayment rates can cause any PAC or Scheduled 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 or Scheduled 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 or Scheduled Class, the amount available to pay principal on the Securities may be insufficient to produce Scheduled Payments on such related PAC or Scheduled Class, and its Weighted Average Life may be extended, perhaps significantly.

If the related Mortgage Loans prepay at rates that are generally above the Effective Range for any PAC or Scheduled Class, its supporting Class or Classes may be retired earlier than that PAC or Scheduled 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 following assumptions (the "Modeling Assumptions"), among others:

- 1. The Mortgage Loans underlying the Group 1, 2, 3, 4, 5, 6, 7, 8 and 9 Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 5, 6, 7, 8 and 9 Trust Assets" in the Terms Sheet, except in the case of information set forth under the 0% PSA Prepayment Assumption Rate, for which each Mortgage Loan underlying a Group 1, 2, 3, 4, 5, 6, 7, 8 or 9 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. The Group 10 Trust Assets and the Mortgage Loans underlying the Group 10 Trust Assets have the assumed characteristics shown in Exhibit A.
- 2. The Mortgage Loans prepay at the constant percentages of PSA or CPR, as applicable, (described below) shown in the related table.
- 3. Distributions on the Securities are always received on the 20th day of the month, whether or not a Business Day, commencing in October 2019.
 - 4. A termination of the Trust does not occur.
 - 5. The Closing Date for the Securities is September 30, 2019.
- 6. No expenses or fees are paid by the Trust other than the Trustee Fee, which is paid as described under "The Trust Assets The Trustee Fee" in this Supplement.
 - 7. Each Class is held from the Closing Date and is not exchanged in whole or in part.
- 8. The Certificate Rate on each Group 10 Trust Asset for the first Distribution Date is based on the information set forth in Exhibit A. The Mortgage Margin, lifetime Mortgage Loan interest rate cap and lifetime Mortgage Loan interest rate floor will equal the related Certificate Margin, Lifetime Certificate Interest Rate Cap and Lifetime Certificate Interest Rate Floor, as applicable, plus the Servicing and Guaranty Fee Rate, each as shown in Exhibit A.
- 9. For purposes of the decrement tables for Security Group 10, on all Distribution Dates occurring after the next Mortgage Rate adjustment date for the related Mortgage Loans, the constant value of CMT and One-Year LIBOR shown with respect to any decrement table is used to calculate the Mortgage Rate with respect to the Mortgage Loans, subject to any applicable caps and floors.
- 10. With respect to the Group 10 Trust Assets, one month after each Mortgage Rate adjustment date the payment amount of the related Mortgage Loan will be reset so that the remaining principal balance

of that Mortgage Loan will fully amortize in equal monthly payments over its remaining term to maturity, assuming its Mortgage Rate remains constant.

11. When calculating the Mortgage Rate or Certificate Rate with respect to the Group 10 Trust Assets, the rate is not rounded to the nearest 1/8 of one percent.

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") and Constant Prepayment Rate ("CPR"), are the standard prepayment assumption models 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. CPR represents a constant rate of prepayment on the Mortgage Loans each month relative to the then outstanding aggregate principal balance of the Mortgage Loans for the life of those Mortgage Loans. 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") or CPR (the "CPR Prepayment Assumption Rates"), as applicable. As used in the tables, each of the PSA Prepayment Assumption Rates or CPR Prepayment Assumption Rates reflects a percentage of the 100% PSA or CPR assumed prepayment rate. The Mortgage Loans will not prepay at any of the PSA Prepayment Assumption Rates or CPR 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 or CPR 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 or CPR Prepayment Assumption Rates, as applicable, and, in the case of the Group 10 Securities, that CMT and One-Year LIBOR is at the specified level. 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 or CPR Prepayment Assumption Rate, as applicable. 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. In addition, the Weighted Average Lives of the Group 10 Securities are likely to vary due to differences between actual CMT and One-Year LIBOR, as applicable, and the assumed constant levels of CMT and One-Year LIBOR, as applicable.

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

Security Group 1 PSA Prepayment Assumption Rates

			Class CA					Class CB					Class CI)	
Distribution Date	0%	140%	170%	215%	400%	0%	140%	170%	215%	400%	0%	140%	170%	215%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	100	100	98	89	50	100	100	91	91	91	100	100	100	100	100
September 2021	100	100	94	65	0	100	100	71	71	0	100	100	100	100	0
September 2022	100	100	89	39	0	100	100	48	48	0	100	100	100	100	0
September 2023	100	100	85	20	0	100	100	31	31	0	100	100	100	100	0
September 2024	100	100	82	8	0	100	100	18	18	0	100	100	100	100	0
September 2025	100	100	81	0	0	100	100	9	9	0	100	100	100	99	0
September 2026	100	100	80	0	0	100	100	3	3	0	100	100	100	18	0
September 2027	100	100	79	0	0	100	100	0	0	0	100	100	100	0	0
September 2028	100	100	78	0	0	100	97	0	0	0	100	100	100	0	0
September 2029	100	100	75	0	0	100	89	0	0	0	100	100	100	0	0
September 2030	100	100	71	0	0	100	76	0	0	0	100	100	100	0	0
September 2031	100	100	66	0	0	100	60	0	0	0	100	100	100	0	0
September 2032	100	100	61	0	0	100	42	0	0	0	100	100	100	0	0
September 2033	100	100	55	0	0	100	22	0	0	0	100	100	100	0	0
September 2034	100	100	50	0	0	100	1	0	0	0	100	100	100	0	0
September 2035	100	91	44	0	0	100	0	0	0	0	100	100	100	0	0
September 2036	100	82	39	0	0	100	0	0	0	0	100	100	100	0	0
September 2037	100	72	34	0	0	100	0	0	0	0	100	100	100	0	0
September 2038	100	63	29	0	0	100	0	0	0	0	100	100	100	0	0
September 2039	100	55	24	0	0	100	0	0	0	0	100	100	100	0	0
September 2040	100	46	20	0	0	100	0	0	0	0	100	100	100	0	0
September 2041	100	39	16	0	0	100	0	0	0	0	100	100	100	0	0
September 2042	100	31	12	0	0	100	0	0	0	0	100	100	100	0	0
September 2043	100	25	9	0	0	100	0	0	0	0	100	100	100	0	0
September 2044	100	18	6	0	0	100	0	0	0	0	100	100	100	0	0
September 2045	100	12	3	0	0	100	0	0	0	0	100	100	100	0	0
September 2046	100	7	0	0	0	100	0	0	0	0	100	100	100	0	0
September 2047	100	2	0	0	0	66	0	0	0	0	100	100	64	0	0
September 2048	64	0	0	0	0	0	0	0	0	0	100	50	22	0	0
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	29.2	20.9	14.3	2.7	1.0	28.1	12.4	3.2	3.2	1.6	30.0	29.0	28.4	6.6	1.6

PSA	Prepayment	Assumption	Rates

			Class CZ				Classes FA and SA			Class PA					
Distribution Date	0%	140%	170%	215%	400%	0%	140%	170%	215%	400%	0%	140%	170%	215%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	103	103	103	103	103	99	96	95	94	91	98	95	95	95	95
September 2021	105	105	105	105	0	97	88	86	84	74	97	86	86	86	85
September 2022	108	108	108	108	0	95	79	76	72	55	95	76	76	76	63
September 2023	111	111	111	111	0	94	71	67	61	41	93	66	66	66	47
September 2024	113	113	113	113	0	92	64	59	52	30	91	58	58	58	35
September 2025	116	116	116	0	0	90	57	51	44	23	88	50	50	50	26
September 2026	119	119	119	0	0	88	51	45	37	17	86	43	43	43	19
September 2027	122	122	122	0	0	86	45	39	32	12	84	37	37	37	14
September 2028	125	125	125	0	0	84	40	34	27	9	81	31	31	31	10
September 2029	128	128	128	0	0	81	36	30	23	7	78	26	26	26	8
September 2030	132	132	132	0	0	79	31	26	19	5	76	22	22	22	6
September 2031	135	135	135	0	0	76	28	22	16	4	73	18	18	18	4
September 2032	138	138	138	0	0	74	24	19	13	3	70	15	15	15	3
September 2033	142	142	142	0	0	71	21	17	11	2	66	13	13	13	2
September 2034	145	145	145	0	0	68	19	14	9	1	63	11	11	11	2
September 2035	149	149	149	0	0	65	16	12	8	1	59	9	9	9	1
September 2036	153	153	153	0	0	61	14	10	6	1	56	7	7	7	1
September 2037	157	157	157	0	0	58	12	9	5	1	52	6	6	6	1
September 2038	161	161	161	0	0	54	10	7	4	0	47	5	5	5	0
September 2039	165	165	165	0	0	51	9	6	3	0	43	4	4	4	0
September 2040	169	169	169	0	0	47	7	5	3	0	38	3	3	3	0
September 2041	173	173	173	0	0	42	6	4	2	0	34	2	2	2	0
September 2042	178	178	178	0	0	38	5	3	2	0	28	2	2	2	0
September 2043	182	182	182	0	0	33	4	2	1	0	23	1	1	1	0
September 2044	187	187	187	0	0	28	3	2	1	0	17	1	1	1	0
September 2045	191	191	191	0	0	23	2	1	1	0	11	1	1	1	0
September 2046	196	196	196	0	0	18	1	1	0	0	5	0	0	0	0
September 2047	201	201	0	0	0	12	1	0	0	0	0	0	0	0	0
September 2048	206	0	0	0	0	6	0	0	0	0	0	0	0	0	0
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	30.0	28.5	27.2	6.0	1.6	18.6	8.9	7.9	6.8	4.3	17.0	7.4	7.4	7.4	4.7

Security Group 2 PSA Prepayment Assumption Rates

		Classe	s DB, FD a	and SD		Class ZD							
Distribution Date	0%	150%	180%	225%	400%	0%	150%	180%	225%	400%			
Initial Percent	100	100	100	100	100	100	100	100	100	100			
September 2020	98	95	95	95	95	104	104	99	91	61			
September 2021	96	86	86	86	83	108	108	92	67	0			
September 2022	94	75	75	75	63	113	113	82	38	0			
September 2023	92	66	66	66	47	117	117	76	18	0			
September 2024	89	56	56	56	35	122	122	74	6	0			
September 2025	87	48	48	48	26	127	127	73	1	0			
September 2026	84	41	41	41	19	132	132	75	0	0			
September 2027	81	34	34	34	14	138	133	75	0	0			
September 2028	78	29	29	29	10	143	132	74	0	0			
September 2029	75	24	24	24	8	149	128	71	0	0			
September 2030	72	20	20	20	6	155	123	67	0	0			
September 2031	69	17	17	17	4	161	116	63	0	0			
September 2032	65	14	14	14	3	168	108	58	0	0			
September 2033	61	12	12	12	2	175	100	53	0	0			
September 2034	57	10	10	10	2	182	92	48	0	0			
September 2035	53	8	8	8	1	189	83	43	0	0			
September 2036	49	7	7	7	1	197	75	38	0	0			
September 2037	44	5	5	5	1	205	67	33	0	0			
September 2038	39	4	4	4	0	214	59	29	0	0			
September 2039	34	3	3	3	0	222	51	25	0	0			
September 2040	29	3	3	3	0	231	44	21	0	0			
September 2041	23	2	2	2	0	241	37	18	0	0			
September 2042	17	2	2	2	0	251	31	15	0	0			
September 2043	10	1	1	1	0	261	25	12	0	0			
September 2044	4	1	1	1	0	271	20	9	0	0			
September 2045	1	1	1	1	0	245	15	Ź	0	0			
September 2046	0	0	0	0	0	189	10	5	0	0			
September 2047	0	0	0	0	0	130	6	3	0	0			
September 2048	0	0	0	0	0	67	3	1	0	0			
September 2049	0	0	0	0	0	0	0	0	0	0			
Weighted Average													
Life (years)	15.5	7.2	7.2	7.2	4.7	27.8	18.4	13.7	2.7	1.1			

Security Group 3
PSA Prepayment Assumption Rates

	Classes EA, EF and ES					Classes FE and SE					Class ZE				
Distribution Date	0%	175%	205%	300%	500%	0%	175%	205%	300%	500%	0%	175%	205%	300%	500%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	98	95	95	95	95	99	96	95	94	91	104	104	101	91	70
September 2021	96	85	85	85	84	97	88	86	82	72	108	108	98	64	0
September 2022	93	72	72	72	58	96	78	75	66	50	113	113	93	33	0
September 2023	91	60	60	60	40	95	68	64	53	34	117	117	91	13	0
September 2024	88	50	50	50	28	93	60	55	43	24	122	122	91	2	0
September 2025	86	40	40	40	19	91	52	48	34	16	127	127	93	0	0
September 2026	83	32	32	32	13	90	46	41	28	11	132	129	93	0	0
September 2027	80	26	26	26	9	88	40	35	22	8	138	127	90	0	0
September 2028	76	21	21	21	6	86	35	30	18	5	143	122	86	0	0
September 2029	73	16	16	16	4	84	30	25	14	4	149	115	80	0	0
September 2030	69	13	13	13	3	81	26	22	11	2	155	107	74	0	0
September 2031	65	10	10	10	2	79	23	18	9	2	161	98	67	0	0
September 2032	61	8	8	8	1	77	20	15	7	1	168	90	60	0	0
September 2033	57	6	6	6	1	74	17	13	6	1	175	81	53	0	0
September 2034	53	5	5	5	1	71	15	11	4	0	182	72	47	0	0
September 2035	48	4	4	4	0	68	12	9	3	0	189	63	41	0	0
September 2036	43	3	3	3	0	65	11	8	3	0	197	56	35	0	0
September 2037	38	2	2	2	0	61	9	6	2	0	205	48	30	0	0
September 2038	32	2	2	2	0	58	7	5	2	0	214	41	25	0	0
September 2039	26	1	1	1	Ŏ	54	6	$\stackrel{\checkmark}{4}$	1	Ŏ	222	35	21	Õ	Ö
September 2040	20	1	1	1	0	50	5	3	1	0	231	30	18	0	0
September 2041	13	1	1	1	0	46	4	3	1	0	241	24	14	0	0
September 2042	6	1	1	1	0	41	3	2	0	0	251	20	11	0	0
September 2043	0	0	0	0	0	36	3	2	0	0	253	16	9	0	0
September 2044	0	0	0	0	0	31	2	1	0	0	217	12	7	0	0
September 2045	0	0	0	0	0	26	1	1	0	0	179	9	5	0	0
September 2046	0	0	0	0	0	20	1	1	0	0	138	6	3	0	0
September 2047	0	0	Õ	0	Õ	14	1	0	Õ	Õ	95	4	2	Õ	Õ
September 2048	Ŏ	Ö	Õ	Ŏ	Õ	7	0	Õ	Õ	Ŏ	49	2	1	Õ	Õ
September 2049	0	0	Õ	0	Õ	Ó	Õ	0	Õ	Õ	0	0	0	Õ	Õ
Weighted Average	-	~	~	~	~	0	~	~	~	~	~	~	~	~	~
Life (years)	14.5	6.1	6.1	6.1	4.1	19.3	8.1	7.3	5.6	3.7	27.1	16.6	14.5	2.5	1.3

Security Group 4
PSA Prepayment Assumption Rates

	Classes F and S					Class WS					Class YS				
Distribution Date	0%	300%	556%	900%	1,200%	0%	300%	556%	900%	1,200%	0%	300%	556%	900%	1,200%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	99	94	90	85	80	99	94	90	85	80	99	94	90	85	80
September 2021	97	82	69	54	41	97	81	69	54	41	97	82	69	54	41
September 2022	96	66	46	25	12	96	66	46	25	12	96	66	46	25	12
September 2023	94	53	30	11	3	94	53	30	11	3	94	53	30	11	3
September 2024	92	43	20	5	1	92	43	20	5	1	92	43	20	5	1
September 2025	91	34	13	2	0	91	34	13	2	0	91	34	13	2	0
September 2026	89	27	8	1	0	89	27	8	1	0	89	27	8	1	0
September 2027	87	22	5	0	0	87	22	5	0	0	87	22	5	0	0
September 2028	85	17	3	0	0	85	17	3	0	0	85	17	4	0	0
September 2029	83	14	2	0	0	83	14	2	0	0	83	14	2	0	0
September 2030	80	11	1	0	0	80	11	1	0	0	80	11	1	0	0
September 2031	78	9	1	0	0	78	9	1	0	0	78	9	1	0	0
September 2032	75	7	1	0	0	75	7	1	0	0	75	7	1	0	0
September 2033	72	5	0	0	0	72	5	0	0	0	72	5	0	0	0
September 2034	69	4	0	0	0	69	4	0	0	0	69	4	0	0	0
September 2035	66	3	0	0	0	66	3	0	0	0	66	3	0	0	0
September 2036	63	3	0	0	0	63	3	0	0	0	63	3	0	0	0
September 2037	60	2	0	0	0	60	2	0	0	0	60	2	0	0	0
September 2038	56	2	0	0	0	56	2	0	0	0	56	2	0	0	0
September 2039	52	1	0	0	0	52	1	0	0	0	52	1	0	0	0
September 2040	48	1	0	0	0	48	1	0	0	0	48	1	0	0	0
September 2041	44	1	0	0	0	44	1	0	0	0	44	1	0	0	0
September 2042	40	0	0	0	0	40	0	0	0	0	40	0	0	0	0
September 2043	35	0	0	0	0	35	0	0	0	0	35	0	0	0	0
September 2044	30	0	0	0	0	30	0	0	0	0	30	0	0	0	0
September 2045	24	0	0	0	0	24	0	0	0	0	24	0	0	0	0
September 2046	19	0	0	0	0	19	0	0	0	0	19	0	0	0	0
September 2047	13	0	0	0	0	13	0	0	0	0	13	0	0	0	0
September 2048	7	0	0	0	0	7	0	0	0	0	7	0	0	0	0
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	19.0	5.5	3.4	2.4	1.9	19.0	5.5	3.4	2.4	1.9	19.0	5.5	3.4	2.4	1.9

Security Group 5 PSA Prepayment Assumption Rates

		Classe	s FG, GA a	ınd SG				Class ZG		
Distribution Date	0%	140%	170%	215%	400%	0%	140%	170%	215%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2020	98	95	95	95	95	104	104	99	93	66
September 2021	96	87	87	87	85	107	107	92	70	0
September 2022	94	77	77	77	64	111	111	83	42	0
September 2023	91	67	67	67	48	115	115	77	22	0
September 2024	89	58	58	58	35	119	119	73	9	0
September 2025	86	50	50	50	26	123	123	72	2	0
September 2026	83	43	43	43	19	128	128	73	0	0
September 2027	81	36	36	36	14	132	130	73	0	0
September 2028	78	31	31	31	11	137	130	72	0	0
September 2029	74	26	26	26	8	142	127	70	0	0
September 2030	71	22	22	22	6	147	122	67	0	0
September 2031	68	18	18	18	4	152	116	62	0	0
September 2032	64	15	15	15	3	158	109	58	0	0
September 2033	60	13	13	13	2	163	101	53	0	0
September 2034	56	11	11	11	2	169	93	48	0	0
September 2035	52	9	9	9	1	175	85	44	0	0
September 2036	48	7	7	7	1	181	77	39	0	0
September 2037	43	6	6	6	1	188	68	34	0	0
September 2038	38	5	5	5	0	194	61	30	0	0
September 2039	33	4	4	4	0	201	53	26	0	0
September 2040	28	3	3	3	0	208	46	22	0	0
September 2041	23	2	2	2	0	216	39	19	0	0
September 2042	17	2	2	2	0	223	32	15	0	0
September 2043	11	1	1	1	0	231	26	12	0	0
September 2044	4	1	1	1	0	240	21	10	0	0
September 2045	1	1	1	1	0	222	16	7	0	0
September 2046	0	0	0	0	0	171	11	5	0	0
September 2047	0	0	0	0	0	117	6	3	0	0
September 2048	0	0	0	0	0	61	2	1	0	0
September 2049	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	15.4	7.4	7.4	7.4	4.8	27.9	18.8	13.7	2.9	1.2

Security Group 6 PSA Prepayment Assumption Rates

		Classe	s FH, HA a	and SH	1 ,			Class ZH		
Distribution Date	0%	150%	180%	225%	400%	0%	150%	180%	225%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2020	98	95	95	95	95	104	104	99	93	66
September 2021	96	87	87	87	85	108	108	93	69	0
September 2022	94	76	76	76	64	113	113	83	40	0
September 2023	92	66	66	66	48	117	117	77	20	0
September 2024	89	57	57	57	35	122	122	74	7	0
September 2025	87	49	49	49	26	127	127	74	1	0
September 2026	84	41	41	41	19	132	132	75	0	0
September 2027	81	35	35	35	14	138	134	75	0	0
September 2028	78	29	29	29	11	143	133	74	0	0
September 2029	75	25	25	25	8	149	129	71	0	0
September 2030	72	21	21	21	6	155	124	67	0	0
September 2031	69	17	17	17	4	161	117	63	0	0
September 2032	65	14	14	14	3	168	109	58	0	0
September 2033	61	12	12	12	2	175	101	53	0	0
September 2034	57	10	10	10	2	182	93	48	0	0
September 2035	53	8	8	8	1	189	84	43	0	0
September 2036	49	7	7	7	1	197	76	39	0	0
September 2037	44	5	5	5	1	205	67	34	0	0
September 2038	39	4	4	4	0	214	59	30	0	0
September 2039	34	3	3	3	0	222	52	25	0	0
September 2040	29	3	3	3	0	231	45	22	0	0
September 2041	23	2	2	2	0	241	38	18	0	0
September 2042	17	2	2	2	0	251	31	15	0	0
September 2043	11	1	1	1	0	261	26	12	0	0
September 2044	4	1	1	1	0	271	20	9	0	0
September 2045	1	1	1	1	0	246	15	7	0	0
September 2046	0	0	0	0	0	190	11	5	0	0
September 2047	0	0	0	0	0	131	7	3	0	0
September 2048	0	0	0	0	0	67	3	1	0	0
September 2049	0	0	0	0	0	0	0	0	0	0
Weighted Average										
Life (years)	15.5	7.2	7.2	7.2	4.8	27.8	18.5	13.8	2.8	1.2

Security Group 7 PSA Prepayment Assumption Rates

		Class	es FJ, JA a	nd SJ				Class ZJ		
Distribution Date	0%	140%	170%	215%	400%	0%	140%	170%	215%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2020	98	96	96	96	96	104	104	100	94	71
September 2021	96	88	88	88	87	107	107	93	73	0
September 2022	94	77	77	77	65	111	111	84	44	0
September 2023	91	68	68	68	49	115	115	77	23	0
September 2024	89	59	59	59	36	119	119	73	10	0
September 2025	86	51	51	51	27	123	123	72	2	0
September 2026	83	43	43	43	20	128	128	73	0	0
September 2027	81	37	37	37	15	132	130	74	0	0
September 2028	78	31	31	31	11	137	130	73	0	0
September 2029	74	26	26	26	8	142	127	70	0	0
September 2030	71	22	22	22	6	147	123	67	0	0
September 2031	68	18	18	18	4	152	117	63	0	0
September 2032	64	15	15	15	3	158	110	59	0	0
September 2033	60	13	13	13	2	163	102	54	0	0
September 2034	56	11	11	11	2	169	94	49	0	0
September 2035	52	9	9	9	1	175	86	44	0	0
September 2036	48	7	7	Ź	1	181	78	40	0	0
September 2037	43	6	6	6	1	188	69	35	0	0
September 2038	39	5	5	5	0	194	62	31	0	Õ
September 2039	34	4	4	4	ő	201	54	26	Ő	Ŏ
September 2040	28	3	3	3	Õ	208	47	23	0	0
September 2041	23	2	2	2	ő	216	40	19	Ő	Ő
September 2042	17	2	2	2	ő	223	33	16	ő	ő
September 2043	11	1	- 1	1	0	231	27	13	Ő	0
September 2044	4	1	1	1	0	240	21	10	Ő	0
September 2045	1	1	1	1	ő	222	16	7	0	0
September 2046	0	0	0	0	0	171	11	5	0	0
September 2047	0	0	0	0	0	118	7	3	0	0
September 2048	0	0	0	0	0	61	3	1	0	0
September 2049	0	0	0	0	0	01	0	0	0	0
Weighted Average	U	U	U	U	U	U	U	U	U	U
Life (years)	15.4	7.5	7.5	7.5	4.8	27.9	18.9	13.8	3.0	1.3

Security Groups 5 and 7 PSA Prepayment Assumption Rates

			Class SY		
Distribution Date	0%	140%	170%	215%	400%
Initial Percent	100	100	100	100	100
September 2020	98	95	95	95	95
September 2021	96	87	87	87	86
September 2022	94	77	77	77	65
September 2023	91	67	67	67	48
September 2024	89	59	59	59	36
September 2025	86	50	50	50	27
September 2026	83	43	43	43	20
September 2027	81	36	36	36	15
September 2028	78	31	31	31	11
September 2029	74	26	26	26	8
September 2030	71	22	22	22	6
September 2031	68	18	18	18	4
September 2032	64	15	15	15	3
September 2033	60	13	13	13	3 2
September 2034	56	11	11	11	2
September 2035	52	9	9	9	1
September 2036	48	9 7	9 7	9 7	1
September 2037	43	6	6	6	1
September 2038	39	5	5	5	0
September 2039	34	4	4	5 4	0
September 2040	28	3	3		0
September 2041	23	3 2 2	3 2 2	3 2 2	0
September 2042	17	2	2	2	0
September 2043	11	1	1	1	0
September 2044	4	1	1	1	0
September 2045	1	1	1	1	0
September 2046	0	0	0	0	0
September 2047	0	0	0	0	0
September 2048	Ö	Ö	Ŏ	Ŏ	Ö
September 2049	0	0	0	0	0
Weighted Average					
Life (years)	15.4	7.4	7.4	7.4	4.8

Security Group 8
PSA Prepayment Assumption Rates

	Class	ses FK, KA	, KB, KC,	KD, KE an	d SK			Class ZK		
Distribution Date	0%	150%	180%	225%	400%	0%	150%	180%	225%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2020	98	95	95	95	95	104	104	99	91	61
September 2021	96	86	86	86	83	108	108	92	67	0
September 2022	94	75	75	75	62	113	113	82	38	0
September 2023	92	65	65	65	47	117	117	76	18	0
September 2024	89	56	56	56	35	122	122	74	6	0
September 2025	87	48	48	48	26	127	127	73	1	0
September 2026	84	41	41	41	19	132	132	75	0	0
September 2027	81	34	34	34	14	138	133	75	0	0
September 2028	78	29	29	29	10	143	132	74	0	0
September 2029	75	24	24	24	8	149	128	71	0	0
September 2030	72	20	20	20	6	155	123	67	0	0
September 2031	69	17	17	17	4	161	116	62	0	0
September 2032	65	14	14	14	3	168	108	58	0	0
September 2033	61	12	12	12	2	175	100	53	0	0
September 2034	57	10	10	10	2	182	92	48	0	0
September 2035	53	8	8	8	1	189	83	43	0	0
September 2036	49	6	6	6	1	197	75	38	Ŏ	Õ
September 2037	44	5	5	5	1	205	66	33	0	0
September 2038	39	4	4	4	0	214	58	29	0	0
September 2039	34	3	3	3	Ö	222	51	25	Ŏ	Õ
September 2040	29	3	3	3	Õ	231	44	21	0	0
September 2041	23	2	2	2	Õ	241	37	18	0	0
September 2042	17	2	2	2	Ö	251	31	14	Ŏ	Õ
September 2043	10	1	1	1	0	261	25	12	0	0
September 2044	4	1	1	1	Õ	271	19	9	0	0
September 2045	1	1	1	1	Õ	245	14	Ź	Õ	Õ
September 2046	0	0	0	0	Ŏ	190	10	4	0	Õ
September 2047	Õ	0	0	0	Ŏ	130	6	3	0	Õ
September 2048	ŏ	Ő	ŏ	ŏ	ŏ	67	2	ĭ	Ŏ	ŏ
September 2049	Ŏ	Õ	Õ	Õ	ŏ	0	0	0	Õ	Ŏ
Weighted Average	0	V	0	V	0	O .	0	0	· ·	
Life (years)	15.5	7.2	7.2	7.2	4.7	27.8	18.4	13.7	2.7	1.1

Security Groups 6 and 8 PSA Prepayment Assumption Rates

			Class SW		
Distribution Date	0%	150%	180%	225%	400%
Initial Percent	100	100	100	100	100
September 2020	98	95	95	95	95
September 2021	96	87	87	87	84
September 2022	94	76	76	76	63
September 2023	92	66	66	66	47
September 2024	89	57	57	57	35
September 2025	87	48	48	48	26
September 2026	84	41	41	41	19
September 2027	81	35	35	35	14
September 2028	78	29	29	29	11
September 2029	75	24	24	24	8
September 2030	72	20	20	20	6
September 2031	69	17	17	17	4
September 2032	65	14	14	14	3 2
September 2033	61	12	12	12	2
September 2034	57	10	10	10	2
September 2035	53	8	8	8	1
September 2036	49	7	7	7	1
September 2037	44	5	5	5	1
September 2038	39	4	4	4	0
September 2039	34	3	3	3	0
September 2040	29	3	3	3	0
September 2041	23	3 3 2 2	3 3 2 2	3 3 2 2	0
September 2042	17	2	2	2	0
September 2043	10	1	1	1	0
September 2044	4	1	1	1	0
September 2045	1	1	1	1	0
September 2046	0	0	0	0	0
September 2047	0	0	0	0	0
September 2048	0	0	0	0	0
September 2049	0	0	0	0	0
Weighted Average					
Life (years)	15.5	7.2	7.2	7.2	4.7

Security Group 9 PSA Prepayment Assumption Rates

	Clas	ses UA, UI	3, UC, UD,	UE, UF an	d US			Class ZU		
Distribution Date	0%	140%	170%	215%	400%	0%	140%	170%	215%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2020	98	96	96	96	96	104	104	100	94	71
September 2021	96	88	88	88	87	107	107	93	73	0
September 2022	94	77	77	77	65	111	111	84	44	0
September 2023	91	68	68	68	49	115	115	77	23	0
September 2024	89	59	59	59	36	119	119	73	10	0
September 2025	86	51	51	51	27	123	123	72	2	0
September 2026	83	43	43	43	20	128	128	73	0	0
September 2027	81	37	37	37	15	132	130	74	0	0
September 2028	78	31	31	31	11	137	130	73	0	0
September 2029	74	26	26	26	8	142	127	70	0	0
September 2030	71	22	22	22	6	147	123	67	0	0
September 2031	68	18	18	18	4	152	117	63	0	0
September 2032	64	15	15	15	3	158	110	59	0	0
September 2033	60	13	13	13	2	163	102	54	0	0
September 2034	56	11	11	11	2	169	94	49	0	0
September 2035	52	9	9	9	1	175	86	44	0	0
September 2036	48	Ź	7	Ź	1	181	78	40	0	0
September 2037	43	6	6	6	1	188	69	35	0	0
September 2038	39	5	5	5	0	194	62	31	0	0
September 2039	34	4	4	4	0	201	54	26	0	0
September 2040	28	3	3	3	0	208	47	23	0	0
September 2041	23	2	2	2	0	216	40	19	0	0
September 2042	17	2	2	2	0	223	33	16	0	0
September 2043	11	1	1	1	0	231	27	13	0	0
September 2044	4	1	1	1	0	240	21	10	0	0
September 2045	1	1	1	1	0	222	16	7	0	0
September 2046	0	0	0	0	0	171	11	5	0	0
September 2047	0	0	0	0	0	118	7	3	0	0
September 2048	Ŏ	Õ	Õ	Õ	Ŏ	61	3	ĭ	Ŏ	Ŏ
September 2049	0	0	0	0	Õ	0	Ő	0	Õ	0
Weighted Average										
Life (years)	15.4	7.5	7.5	7.5	4.8	27.9	18.9	13.8	3.0	1.3

Security Group 10 CPR Prepayment Assumption Rates

	Classes NF and NI 1.88000% CMT 2.00863% One-Year LIBOR			Classes NF and NI 5.00000% CMT 4.00000% One-Year LIBOR			Classes NF and NI 7.00000% CMT 6.00000% One-Year LIBOR				Classes NF and NI 11.50000% CMT 8.00000% One-Year LIBOR									
Distribution Date	0%	15%	25%	40%	50%	0%	15%	25%	40%	50%	0%	15%	25%	40%	50%	0%	15%	25%	40%	50%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	97	82	73	58	48	97	82	73	58	49	97	82	73	58	49	97	82	73	58	49
September 2021	94	68	53	34	23	94	68	53	34	24	94	68	53	34	24	94	68	53	34	24
September 2022	90	55	38	19	11	91	56	39	20	11	91	56	39	20	11	92	56	39	20	11
September 2023	87	45	27	11	5	89	46	28	12	6	89	46	28	12	6	89	46	28	12	6
September 2024	83	37	20	6	3	86	38	20	7	3	86	38	21	7	3	86	38	21	7	3
September 2025	80	30	14	4	1	83	31	15	4	1	84	32	15	4	1	84	32	15	4	1
September 2026	76	24	10	2	1	80	26	11	2	1	81	26	11	2	1	81	26	11	2	1
September 2027	72	20	7	1	0	77	21	8	1	0	78	21	8	1	0	78	21	8	1	0
September 2028	68	16	5	1	0	73	17	5	1	0	74	17	6	1	0	75	17	6	1	0
September 2029	63	12	4	0	0	69	14	4	0	0	71	14	4	0	0	71	14	4	0	0
September 2030	59	10	2	0	0	65	11	3	0	0	67	11	3	0	0	67	11	3	0	0
September 2031	55	8	2	0	0	61	9	2	0	0	63	9	2	0	0	63	9	2	0	0
September 2032	50	6	1	0	0	57	7	1	0	0	58	7	1	0	0	58	7	1	0	0
September 2033	45	5	1	0	0	52	5	1	0	0	53	5	1	0	0	54	6	1	0	0
September 2034	41	4	1	0	0	48	4	1	0	0	49	4	1	0	0	49	4	1	0	0
September 2035	37	3	0	0	0	44	3	0	0	0	45	3	0	0	0	45	3	0	0	0
September 2036	33	2	0	0	0	39	2	0	0	0	41	3	0	0	0	41	3	0	0	0
September 2037	29	2	0	0	0	35	2	0	0	0	37	2	0	0	0	37	2	0	0	0
September 2038	25	1	0	0	0	30	1	0	0	0	32	1	0	0	0	32	1	0	0	0
September 2039	21	1	0	0	0	25	1	0	0	0	27	1	0	0	0	27	1	0	0	0
September 2040	17	1	0	0	0	21	1	0	0	0	22	1	0	0	0	22	1	0	0	0
September 2041	13	0	0	0	0	16	0	0	0	0	17	0	0	0	0	17	0	0	0	0
September 2042	10	0	0	0	0	12	0	0	0	0	13	0	0	0	0	13	0	0	0	0
September 2043	7	0	0	0	0	9	0	0	0	0	9	0	0	0	0	9	0	0	0	0
September 2044	4	0	0	0	0	5	0	0	0	0	6	0	0	0	0	6	0	0	0	0
September 2045	2	0	0	0	0	3	0	0	0	0	3	0	0	0	0	3	0	0	0	0
September 2046	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0
September 2047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
September 2048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average																				
Life (years)	13.1	4.8	3.1	1.8	1.4	14.1	5.0	3.1	1.9	1.4	14.4	5.0	3.1	1.9	1.4	14.4	5.0	3.1	1.9	1.4

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 a Floating Rate or an Inverse Floating Rate Class or the Class NI Securities, the investor's own projection of levels of One-Month LIBOR under a variety of scenarios and, in the case of the Group 10 Securities, the investor's own projection of levels of CMT and One-Year LIBOR under a variety of scenarios. No representation is made regarding Mortgage Loan prepayment rates, CMT levels, One-Year LIBOR levels, One-Month LIBOR levels or the yield of any Class.

Prepayments: Effect on Yields

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

- In the case of Regular Securities or MX Securities purchased at a premium (especially the Interest Only Classes), faster than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- Investors in the Interest Only Classes should also consider the risk that rapid rates of principal payments could result in the failure of investors to recover fully their investments.
- In the case of Regular Securities or MX Securities purchased at a discount, slower than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- The rates of principal amortization on the Mortgage Loans underlying the Group 10 Trust Assets will depend upon the level of and annual adjustments in the applicable Mortgage Rates, with

higher Mortgage Rates and earlier increases in Mortgage Rates affecting the rates of prepayments, which could result in actual yields to investors that are lower than the anticipated yields.

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

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

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

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

One-Month LIBOR: Effect on Yields of the Floating Rate and Inverse Floating Rate Classes and the Class NI Securities

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

CMT and One-Year LIBOR: Effect on Yields of the Group 10 Securities

Low levels of CMT or One-Year LIBOR can reduce the yield of the Group 10 Securities. See "Risk Factors — After the initial fixed rate period of the mortgage loans underlying the group 10 trust assets, the mortgage rates on such mortgage loans adjust annually based on CMT or one-year LIBOR, as applicable, the level of which will affect the yield on the related securities" in this Supplement.

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 or CPR, as applicable, and, in the case of the

Inverse Floating Rate Classes, at various constant levels of One-Month LIBOR and, in the case of the Class NI Securities, at various constant levels of One-Month LIBOR, CMT and One-Year LIBOR, as applicable.

The Mortgage Loans will not prepay at any constant rate until maturity, and it is unlikely that One-Month LIBOR, CMT or One-Year 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, and
- 2. converting the monthly rates to corporate bond equivalent rates.

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

The information set forth in the following tables was prepared on the basis of the Modeling Assumptions and the assumptions that (1) the Interest Rate applicable to each Inverse Floating Rate Class and the Class NI Securities for each Accrual Period following the first Accrual Period will be based on the indicated level of One-Month LIBOR, (2) the Mortgage Rates applicable to the Mortgage Loans underlying the Group 10 Trust Assets for each Accrual Period after the next Mortgage Rate adjustment date will be based on the indicated level of CMT and One-Year LIBOR, as applicable and (3) the purchase price of each Class (expressed as a percentage of its original Class Notional Balance) plus accrued interest is as indicated in the related table. **The assumed purchase price is not necessarily that at which actual sales will occur.**

SECURITY GROUP 1 Sensitivity of Class SA to Prepayments Assumed Price 19.53125%*

	PSA Prepayment Assumption Rates					
One-Month LIBOR	140%	170%	215%	400%		
1.00000%	17.2%	15.6%	13.1%	2.9%		
2.03588%	11.1%	9.5%	7.0%	(3.5)%		
4.04294%	(1.1)%	(2.8)%	(5.4)%	(16.4)%		
6.05000% and above	**	**	**	**		

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

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

SECURITY GROUP 2

Sensitivity of Class SD to Prepayments Assumed Price 16.21875%*

	PSA Prepayment Assumption Rates							
One-Month LIBOR	150%	180%	225%	400%				
1.00000%	21.1%	21.1%	21.1%	13.2%				
2.03588%	13.5%	13.5%	13.5%	5.0%				
4.06794%	(1.7)%	(1.7)%	(1.7)%	(11.5)%				
6.10000% and above	**	3636	***	**				

SECURITY GROUP 3

Sensitivity of Class ES to Prepayments Assumed Price 16.9375%*

	PSA Prepayment Assumption Rates						
One-Month LIBOR	175%	205%	300%	500%			
1.00000%	16.9%	16.9%	16.9%	8.0%			
2.03588%	9.4%	9.4%	9.4%	(0.2)%			
4.06794%	(5.8)%	(5.8)%	(5.8)%	(17.0)%			
6 10000% and above	**	**	**	**			

Sensitivity of Class SE to Prepayments Assumed Price 14.875%*

	PSA Prepayment Assumption Rates						
One-Month LIBOR	175%	205%	300%	500%			
1.00000%	26.0%	24.5%	19.7%	9.5%			
2.03588%	17.9%	16.3%	11.4%	0.7%			
4.06794%	1.8%	0.1%	(5.2)%	(16.9)%			
6.10000% and above	**	**	**	**			

SECURITY GROUP 4

Sensitivity of Class S to Prepayments Assumed Price 8.5%*

	PSA Prepayment Assumption Rates						
One-Month LIBOR	300%	556%	900%	1,200%			
1.00000%	11.4%	(2.3)%	(21.6)%	(39.2)%			
2.03588%	(3.2)%	(18.1)%	(39.7)%	(59.8)%			
2.69294%	(13.4)%	(29.0)%	(52.3)%	(75.2)%			
3.35000% and above	**	**	**	**			

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

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

Sensitivity of Class WS to Prepayments Assumed Price 8.5%*

	PSA Prepayment Assumption Rates				
One-Month LIBOR	300%	556%	900%	1,200%	
1.00000%	11.4%	(2.3)%	(21.6)%	(39.2)%	
2.03588%	(3.2)%	(18.1)%	(39.7)%	(59.8)%	
2.69294%	(13.4)%	(29.0)%	(52.3)%	(75.2)%	
3.35000% and above	र्श्वदर्शद	sperspe	排車	**	

Sensitivity of Class YS to Prepayments Assumed Price 8.5%*

	PSA Prepayment Assumption Rates					
One-Month LIBOR	300%	556%	900%	1,200%		
1.00000%	11.4%	(2.3)%	(21.6)%	(39.2)%		
2.03588%	(3.2)%	(18.1)%	(39.6)%	(59.8)%		
2.69294%	(13.3)%	(29.0)%	(52.3)%	(75.2)%		
3.35000% and above	ajcaje	**	3/43/4	**		

SECURITY GROUP 5

Sensitivity of Class SG to Prepayments Assumed Price 19.84375%*

One-Month LIBOR	PSA Prepayment Assumption Rates			
	140%	170%	215%	400%
1.00000%	14.5%	14.5%	14.5%	5.8%
2.03588%	8.3%	8.3%	8.3%	(1.0)%
4.04294%	(4.4)%	(4.4)%	(4.4)%	(14.8)%
6.05000% and above	**	1/4 1/4	水水	**

SECURITY GROUP 6

Sensitivity of Class SH to Prepayments Assumed Price 19.21875%*

	PSA Prepayment Assumption Rates			
One-Month LIBOR	150%	180%	225%	400%
1.00000%	15.4%	15.4%	15.4%	7.3%
2.03588%	9.0%	9.0%	9.0%	0.3%
4.06794%	(4.2)%	(4.2)%	(4.2)%	(14.0)%
6.10000% and above	**	**	**	**

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

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

SECURITY GROUP 7

Sensitivity of Class SJ to Prepayments Assumed Price 21.375%*

One-Month LIBOR	PSA Prepayment Assumption Rates			
	140%	170%	215%	400%
1.00000%	12.5%	12.5%	12.5%	3.9%
2.03588%	6.7%	6.7%	6.7%	(2.5)%
4.04294%	(5.2)%	(5.2)%	(5.2)%	(15.5)%
6.05000% and above	**	**	**	**

SECURITY GROUPS 5 AND 7

Sensitivity of Class SY to Prepayments Assumed Price 20.76461%*

One-Month LIBOR	PSA Prepayment Assumption Rates			
	140%	170%	215%	400%
1.00000%	13.3%	13.3%	13.3%	4.6%
2.03588%	7.3%	7.3%	7.3%	(1.9)%
4.04294%	(4.9)%	(4.9)%	(4.9)%	(15.2)%
6.05000% and above	**	**	**	**

SECURITY GROUP 8

Sensitivity of Class SK to Prepayments Assumed Price 18.625%*

One-Month LIBOR	PSA	PSA Prepayment Assumption Rates			
	150%	180%	225%	400%	
1.00000%	16.2%	16.2%	16.2%	7.9%	
2.03588%	9.6%	9.6%	9.6%	0.8%	
4.06794%	(3.9)%	(3.9)%	(3.9)%	(13.8)%	
6.10000% and above	**	**	**	**	

SECURITY GROUPS 6 AND 8

Sensitivity of Class SW to Prepayments Assumed Price 18.91578%*

One-Month LIBOR	PSA Prepayment Assumption Rates			
	150%	180%	225%	400%
1.00000%	15.8%	15.8%	15.8%	7.6%
2.03588%	9.3%	9.3%	9.3%	0.5%
4.06794%	(4.0)%	(4.0)%	(4.0)%	(13.9)%
6.10000% and above	**	**	**	**

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

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

SECURITY GROUP 9

Sensitivity of Class US to Prepayments Assumed Price 21.375%*

One-Month LIBOR	PSA Prepayment Assumption Rates				
	140%	170%	215%	400%	
1.00000%	12.5%	12.5%	12.5%	3.9%	
2.03588%	6.7%	6.7%	6.7%	(2.5)%	
4.04294%	(5.2)%	(5.2)%	(5.2)%	(15.5)%	
6.05000% and above	**	**	**	**	

SECURITY GROUP 10

Sensitivity of Class NI to Prepayments Assumed Price 2.1797%* 1.88000% CMT 2.00863% One-Year LIBOR

One-Month LIBOR	CPR Prepayment Assumption Rates					
	15%	25%	40%	50%		
1.00000%	73.3%	57.4%	31.4%	12.1%		
2.03588%	21.0%	7.9%	(13.6)%	(29.5)%		
7.31794%	**	**	***	**		
12.60000% and above	**	**	**	**		

Sensitivity of Class NI to Prepayments Assumed Price 2.1797%* 5.00000% CMT 4.00000% One-Year LIBOR

One-Month LIBOR	CPR Prepayment Assumption Rates			
	15%	25%	40%	50%
1.00000%	123.4%	104.7%	74.1%	51.3%
2.03588%	77.2%	60.9%	34.2%	14.5%
7.31794%	**	**	**	***
12.60000% and above	**	**	**	**

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

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

Sensitivity of Class NI to Prepayments Assumed Price 2.1797%* 7.00000% CMT 6.00000% One-Year LIBOR

One-Month LIBOR	CPR Prepayment Assumption Rates			
	15%	25%	40%	50%
1.00000%	125.4%	106.6%	75.7%	52.8%
2.03588%	80.4%	63.9%	36.9%	16.9%
7.31794%	**	**	**	非非
12.60000% and above	**	**	**	**

Sensitivity of Class NI to Prepayments Assumed Price 2.1797%* 11.50000% CMT 8.00000% One-Year LIBOR

	CP	R Prepayment	Assumption Ra	ates
One-Month LIBOR	15%	25%	40%	50%
1.00000%	125.6%	106.8%	75.9%	53.0%
2.03588%	80.7%	64.2%	37.1%	17.1%
7.31794%	(62.3)%	(70.6)%	(84.1)%	(94.2)%
12.60000% and above	**	**	**	**

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

CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

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

REMIC Elections

In the opinion of Cleary Gottlieb Steen & Hamilton LLP, the Trust will constitute a Double REMIC Series for United States federal income tax purposes. Separate REMIC elections will be made for the Pooling REMIC and the Issuing REMIC.

Regular Securities

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

The 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.

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

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)	PSA or CPR
1, 5, 7 and 9	170% PSA
2, 6 and 8	180% PSA
3	205% PSA
4	556% PSA
10	25% CPR

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 One-Month LIBOR, CMT or One-Year 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 market 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 Pooling REMIC and the beneficial ownership of the Residual Interest in the Issuing REMIC. The Residual Securities, *i.e.*, the Class RR Securities, generally will be treated as "residual interests" in a REMIC for

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

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

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

MX Securities

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

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

Foreign Account Tax Compliance Act

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

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

ERISA MATTERS

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

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

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

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

See "ERISA Considerations" in the Base Offering Circular.

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

LEGAL INVESTMENT CONSIDERATIONS

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

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

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

PLAN OF DISTRIBUTION

Subject to the terms and conditions of the Sponsor Agreement, the Sponsor has agreed to purchase all of the Securities if any are sold and purchased. The Sponsor proposes to offer the Regular and MX Classes to the public from time to time for sale in negotiated transactions at varying prices to be determined at the time of sale, plus accrued interest from (1) September 1, 2019 on the Fixed Rate and Delay Classes and (2) September 20, 2019 on the Floating Rate and Inverse Floating Rate Classes other than the Delay Classes. The Sponsor may effect these transactions by sales to or through certain securities dealers. These dealers may receive compensation in the form of discounts, concessions or commissions from the Sponsor and/or commissions from any purchasers for which they act as agents. Some of the Securities may be sold through dealers in relatively small sales. In the usual case, the commission charged on a relatively small sale of securities will be a higher percentage of the sales price than that charged on a large sale of securities.

INCREASE IN SIZE

Before the Closing Date, Ginnie Mae, the Trustee and the Sponsor may agree to increase the size of this offering. In that event, the Securities will have the same characteristics as described in this Supplement, except that (1) the Original Class Principal Balance (or original Class Notional Balance) and (2) the Scheduled Principal Balances or Aggregate Scheduled Principal Balances of each Class receiving principal distributions or interest distributions based upon a notional balance from the same Trust Asset Group will increase by the same proportion. The Trust Agreement, the Final Data Statement, the Final Schedules and the Supplemental Statement, if any, will reflect any increase in the size of the transaction.

LEGAL MATTERS

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

Available Combinations(1)

nad Type(3) Frincipal Type(3) Interest Rate Type(3) Interest Type(3) CUSIP Number Interest Type(3) 00 NTL (PT) (5) INV/IO 38381YVL5 50 NTL (PAC/AD) (5) INV/IO 38381YVM3 46 PAC/AD 2.25% FIX 38381YVM1 57 PAC/AD 2.75% FIX 38381YVP6 57 PAC/AD 2.75% FIX 38381YVP6 57 PAC/AD 3.00% FIX 38381YVR2 57 PAC/AD 3.00% FIX 38381YVR2	REMIC Securities				W	MX Securities			
\$ 74,254,164 S \$100,000,000 NTL (PT) (5) INV/IO 38381YVL5 25,745,836 \$ \$ \$100,000,000 NTL (PAC/AD) (5) INV/IO 38381YVM3 57,221,000 \$ \$ 7,072,646 KD \$ \$127,307,646 PAC/AD 2.25% FIX 38381YVM1 120,235,000 15,029,375 KC \$135,264,375 PAC/AD 2.75% FIX 38381YVP6 120,235,000 15,029,375 \$ \$ 24,047,000 24,047,000 \$ \$ 34,352,857 KA \$154,587,857 PAC/AD 3.00% FIX 38381YVR2 120,235,000 24,047,000 34,352,857		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)
5 and 7 5 and 7 5 and 7 (5) INV/IO 38381YVL5 5 and 7 \$ 5,745,836 ST,222,000 ST,221,000 ST,221,000 NTL (PAC/AD) (5) INV/IO 38381YVM3 \$ 7,221,000 KD \$127,307,646 PAC/AD \$2.25% FIX 38381YVM3 \$ 120,255,000 T,072,646 KC \$135,264,375 PAC/AD \$2.50% FIX 38381YVP6 \$ 120,235,000 KB \$144,282,000 PAC/AD \$2.75% FIX 38381YVP6 \$ 24,047,000 KB \$144,282,000 PAC/AD \$2.75% FIX 38381YVP6 \$ 34,332,857 KA \$154,587,857 PAC/AD \$3.00% FIX 38381YVP2 \$ 34,352,857 KA \$154,587,857 PAC/AD \$3.00% FIX 38381YVP2	ou p 4 on 1								
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120,235,000 34,352,857		\$ 34,352,857	KA	\$154,587,857	PAC/AD	3.00%	FIX	38381YVR2	September 2049
34,352,857		120,235,000							
		34,352,857							

REMIC Securities				MC	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 Groups 6 and 8 Combination 7(6)								
HS	\$ 77,892,000	SW	\$159,050,625	NTL (PAC/AD)	(5)	OI/ANI	38381YVS0	September 2049
SK	81,158,625							
Security Group 9 Combination 8								
UE	\$ 89.810.667	QD	\$ 95,093,648	PAC/AD	2.25%	FIX	38381YVT8	September 2049
UF	5,282,981))	1
ns	5,282,981							
Combination 9								
UE	\$ 89,810,667	CC	\$101,037,001	PAC/AD	2.50%	FIX	38381YVU5	September 2049
UF	11,226,334							
ns	11,226,334							
Combination 10								
UE	\$ 89,810,667	UB	\$107,772,801	PAC/AD	2.75%	FIX	38381YVV3	September 2049
UF	17,962,134							
ns	17,962,134							
Combination 11								
UE	\$ 89,810,667	$\mathbf{U}\mathbf{A}$	\$115,470,858	PAC/AD	3.00%	FIX	38381YVW1	September 2049
UF	25,660,191							
ns	25,660,191							

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

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

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

See "Yield, Maturity and Prepayment Considerations — Final Distribution Date" in this Supplement. (4) The Interest Rate will be calculated as described under "Terms Sheet — Interest Rates" in this Supplement. (5)

(6) Derived from REMIC Classes relating to separate Groups.

Schedule II

SCHEDULED PRINCIPAL BALANCES

Distribution Date	Class CB	Class PA	Classes DB and FD (in the aggregate)
Initial Balance	\$4,613,000.00	\$100,701,000.00	\$329,439,000.00
October 2019	4,597,350.48	100,421,749.33	328,560,557.80
November 2019	4,577,825.27	100,115,011.96	327,589,005.93
December 2019	4,554,447.61	99,780,927.02	326,524,707.54
January 2020	4,527,246.72	99,419,653.46	325,368,097.25
February 2020	4,496,257.82	99,031,369.93	324,119,680.93
March 2020	4,461,522.01	98,616,274.71	322,780,035.49
April 2020	4,423,086.29	98,174,585.53	321,349,808.42
May 2020	4,381,003.49	97,706,539.43	319,829,717.39
June 2020	4,335,332.19	97,212,392.57	318,220,549.70
July 2020	4,286,136.67	96,692,419.98	316,523,161.58
August 2020	4,233,486.78	96,146,915.38	314,738,477.52
September 2020	4,177,457.90	95,576,190.89	312,867,489.41
October 2020	4,118,130.74	94,980,576.76	310,911,255.61
November 2020	4,055,591.30	94,360,421.05	308,870,900.01
December 2020	3,989,930.72	93,716,089.32	306,747,610.86
January 2021	3,921,245.07	93,047,964.28	304,542,639.66
February 2021	3,849,635.30	92,356,445.42	302,257,299.86
March 2021	3,775,206.98	91,641,948.63	299,892,965.53
April 2021	3,698,070.17	90,904,905.77	297,451,069.95
May 2021	3,618,339.29	90,145,764.23	294,933,104.09
June 2021	3,536,132.79	89,364,986.55	292,340,615.02
July 2021	3,451,573.09	88,563,049.86	289,675,204.30
August 2021	3,364,786.30	87,740,445.45	286,938,526.20
September 2021	3,275,902.00	86,897,678.28	284,132,285.94
October 2021	3,185,053.06	86,035,266.40	281,258,237.82
November 2021	3,092,375.34	85,153,740.47	278,318,183.28
December 2021	2,998,007.54	84,253,643.20	275,313,968.93
January 2022	2,905,580.04	83,360,759.47	272,247,484.48
February 2022	2,815,067.17	82,475,034.15	269,205,505.79
March 2022	2,726,443.51	81,596,412.52	266,187,828.25
April 2022	2,639,683.97	80,724,840.25	263,194,248.85
May 2022	2,554,763.70	79,860,263.44	260,224,566.21
June 2022	2,471,658.15	79,002,628.57	257,278,580.51
July 2022	2,390,343.04	78,151,882.54	254,356,093.55
August 2022	2,310,794.35	77,307,972.64	251,456,908.66
September 2022	2,232,988.36	76,470,846.54	248,580,830.75
October 2022	2,156,901.58	75,640,452.32	245,727,666.26
November 2022	2,082,510.80	74,816,738.44	242,897,223.16
December 2022	2,009,793.07	73,999,653.75	240,089,310.95
January 2023	1,938,725.70	73,189,147.47	237,303,740.62
February 2023	1,869,286.25	72,385,169.22	234,540,324.66
March 2023	1,801,452.53	71,587,668.98	231,798,877.05
April 2023	1,735,202.61	70,796,597.11	229,079,213.24
May 2023	1,670,514.81	70,011,904.34	226,381,150.13

Distribution Date	Class CB	Class PA	Classes DB and FD (in the aggregate)
June 2023	\$1,607,367.68	\$ 69,233,541.77	\$223,704,506.06
July 2023	1,545,740.02	68,461,460.86	221,049,100.83
August 2023	1,485,610.88	67,695,613.45	218,414,755.64
September 2023	1,426,959.53	66,935,951.72	215,801,293.12
October 2023	1,369,765.50	66,182,428.21	213,208,537.30
November 2023	1,314,008.53	65,434,995.83	210,636,313.59
December 2023	1,259,668.58	64,693,607.84	208,084,448.78
January 2024	1,206,725.87	63,958,217.83	205,552,771.04
February 2024	1,155,160.83	63,228,779.77	203,041,109.89
March 2024	1,104,954.12	62,505,247.93	200,549,296.19
April 2024	1,056,086.61	61,787,576.97	198,077,162.16
May 2024	1,008,539.39	61,075,721.86	195,624,541.32
June 2024	962,293.78	60,369,637.91	193,191,268.52
July 2024	917,331.29	59,669,280.78	190,777,179.90
August 2024	873,633.68	58,974,606.44	188,382,112.90
September 2024	831,182.87	58,285,571.22	186,005,906.26
October 2024	789,961.05	57,602,131.73	183,648,399.97
November 2024	749,950.55	56,924,244.96	181,309,435.30
December 2024	711,133.94	56,251,868.19	178,988,854.76
January 2025	673,493.99	55,584,959.02	176,686,502.11
February 2025	637,013.66	54,923,475.37	174,402,222.35
March 2025	601,676.11	54,267,375.50	172,135,861.68
April 2025	567,464.71	53,616,617.94	169,887,267.55
May 2025	534,363.00	52,971,161.56	167,656,288.59
June 2025	502,354.72	52,330,965.54	165,442,774.62
July 2025	471,423.81	51,695,989.34	163,246,576.65
August 2025	441,554.36	51,066,192.76	161,067,546.89
September 2025	412,730.69	50,441,535.88	158,905,538.68
October 2025	384,937.30	49,821,979.07	156,760,406.53
November 2025	358,158.82	49,207,483.03	154,632,006.11
December 2025	332,380.14	48,598,008.71	152,520,194.22
January 2026	307,586.25	47,993,517.40	150,424,828.77
February 2026	283,762.36	47,393,970.64	148,345,768.83
March 2026	260,893.84	46,799,330.30	146,282,874.54
April 2026	238,966.24	46,209,558.49	144,236,007.18
May 2026	217,965.28	45,624,617.63	142,212,615.88
June 2026	197,876.83	45,044,470.43	140,215,939.08
July 2026	178,686.95	44,469,079.87	138,245,635.93
August 2026	160,381.86	43,898,409.19	136,301,369.82
September 2026	142,947.92	43,332,421.95	134,382,808.36
October 2026	126,371.70	42,771,081.93	132,489,623.32
November 2026	110,639.87	42,214,353.23	130,621,490.56
December 2026	95,739.30	41,662,200.19	128,778,089.99
January 2027	81,657.00	41,114,587.43	126,959,105.55
February 2027	68,380.15	40,571,479.82	125,164,225.11
March 2027	55,896.07	40,032,842.52	123,393,140.46
April 2027	44,192.22	39,498,640.94	121,645,547.23
May 2027	33,256.24	38,968,840.74	119,921,144.87

Distribution Date	 Class CB	Class PA	Classes DB and FD (in the aggregate)
June 2027	\$ 23,075.89	\$ 38,443,407.85	\$118,219,636.60
July 2027	13,639.10	37,922,308.45	116,540,729.34
August 2027	6,384.29	37,405,508.98	114,884,133.70
September 2027	1,589.55	36,892,976.13	113,249,563.88
October 2027	0.00	36,384,676.84	111,636,737.71
November 2027	0.00	35,880,578.29	110,045,376.51
December 2027	0.00	35,382,937.37	108,475,205.12
January 2028	0.00	34,891,697.48	106,925,951.82
February 2028	0.00	34,406,779.64	105,397,348.29
March 2028	0.00	33,928,105.82	103,889,129.58
April 2028	0.00	33,455,598.92	102,401,034.07
May 2028	0.00	32,989,182.79	100,932,803.41
June 2028	0.00	32,528,782.18	99,484,182.50
July 2028	0.00	32,074,322.74	98,054,919.43
August 2028	0.00	31,625,731.03	96,644,765.47
September 2028	0.00	31,182,934.49	95,253,474.98
October 2028	0.00	30,745,861.43	93,880,805.44
November 2028	0.00	30,314,441.03	92,526,517.36
December 2028	0.00	29,888,603.31	91,190,374.25
January 2029	0.00	29,468,279.16	89,872,142.60
February 2029	0.00	29,053,400.28	88,571,591.83
March 2029	0.00	28,643,899.20	87,288,494.26
April 2029	0.00	28,239,709.26	86,022,625.08
May 2029	0.00	27,840,764.63	84,773,762.28
June 2029	0.00	27,447,000.23	83,541,686.68
July 2029	0.00	27,058,351.81	82,326,181.81
August 2029	0.00	26,674,755.86	81,127,033.97
September 2029	0.00	26,296,149.67	79,944,032.12
October 2029	0.00	25,922,471.25	78,776,967.87
November 2029	0.00	25,553,659.39	77,625,635.48
December 2029	0.00	25,189,653.61	76,489,831.78
January 2030	0.00	24,830,394.16	75,369,356.16
February 2030	0.00	24,475,822.00	74,264,010.54
March 2030	0.00	24,125,878.83	73,173,599.34
April 2030	0.00	23,780,507.03	72,097,929.43
May 2030	0.00	23,439,649.70	71,036,810.12
June 2030	0.00	23,103,250.60	69,990,053.14
July 2030	0.00	22,771,254.20	68,957,472.57
August 2030	0.00	22,443,605.63	67,938,884.84
September 2030	0.00	22,120,250.67	66,934,108.70
October 2030	0.00	21,801,135.78	65,942,965.19
November 2030	0.00	21,486,208.06	64,965,277.59
December 2030	0.00	21,175,415.24	64,000,871.44
January 2031	0.00	20,868,705.71	63,049,574.45
February 2031	0.00	20,566,028.45	62,111,216.52
March 2031	0.00	20,267,333.09	61,185,629.71
April 2031	0.00	19,972,569.85	60,272,648.18
May 2031	0.00	19,681,689.56	59,372,108.19
171ay 2001	0.00	17,001,007.70	JJ,J/2,100.17

Distribution Date	 Class CB	_	Class PA	Classes DB and FD (in the aggregate)
June 2031	\$ 0.00	\$	19,394,643.65	\$ 58,483,848.08
July 2031	0.00		19,111,384.15	57,607,708.22
August 2031	0.00		18,831,863.64	56,743,531.00
September 2031	0.00		18,556,035.31	55,891,160.82
October 2031	0.00		18,283,852.90	55,050,444.03
November 2031	0.00		18,015,270.71	54,221,228.91
December 2031	0.00		17,750,243.60	53,403,365.71
January 2032	0.00		17,488,726.99	52,596,706.51
February 2032	0.00		17,230,676.83	51,801,105.32
March 2032	0.00		16,976,049.60	51,016,417.95
April 2032	0.00		16,724,802.31	50,242,502.08
May 2032	0.00		16,476,892.52	49,479,217.17
June 2032	0.00		16,232,278.26	48,726,424.45
July 2032	0.00		15,990,918.12	47,983,986.92
August 2032	0.00		15,752,771.16	47,251,769.34
September 2032	0.00		15,517,796.94	46,529,638.14
October 2032	0.00		15,285,955.53	45,817,461.47
November 2032	0.00		15,057,207.48	45,115,109.15
December 2032	0.00		14,831,513.82	44,422,452.66
January 2033	0.00		14,608,836.04	43,739,365.09
February 2033	0.00		14,389,136.12	43,065,721.15
March 2033	0.00		14,172,376.50	42,401,397.15
April 2033	0.00		13,958,520.06	41,746,270.96
May 2033	0.00		13,747,530.17	41,100,222.01
June 2033	0.00		13,539,370.61	40,463,131.24
July 2033	0.00		13,334,005.62	39,834,881.14
August 2033	0.00		13,131,399.86	39,215,355.67
September 2033	0.00		12,931,518.46	38,604,440.26
October 2033	0.00		12,734,326.93	38,002,021.81
November 2033	0.00		12,539,791.22	37,407,988.65
December 2033	0.00		12,347,877.72	36,822,230.55
January 2034	0.00		12,158,553.18	36,244,638.65
February 2034	0.00		11,971,784.81	35,675,105.51
•	0.00		11,787,540.18	35,113,525.04
March 2034	0.00		11,605,787.29	34,559,792.49
April 2034	0.00		11,426,494.50	34,013,804.48
May 2034			11,420,494.50	33,475,458.91
June 2034	0.00		11,075,164.66	32,944,655.01
July 2034	0.00			32,421,293.26
August 2034	0.00		10,903,066.29	31,905,275.46
September 2034	0.00		10,733,305.34	, , , , , , , , , , , , , , , , , , ,
October 2034	0.00		10,565,852.09	31,396,504.62
November 2034	0.00		10,400,677.17	30,894,885.00
December 2034	0.00		10,237,751.56	30,400,322.09
January 2035	0.00		10,077,046.61	29,912,722.57
February 2035	0.00		9,918,534.02	29,431,994.34
March 2035	0.00		9,762,185.84	28,958,046.44
April 2035	0.00		9,607,974.44	28,490,789.11
May 2035	0.00		9,455,872.56	28,030,133.70

Distribution Date	Class Cl	В	Class PA	Classes DB and FD (in the aggregate)
June 2035	\$	0.00 \$	9,305,853.25	\$ 27,575,992.73
July 2035		0.00	9,157,889.92	27,128,279.80
August 2035		0.00	9,011,956.27	26,686,909.66
September 2035		0.00	8,868,026.36	26,251,798.11
October 2035		0.00	8,726,074.55	25,822,862.04
November 2035		0.00	8,586,075.50	25,400,019.42
December 2035		0.00	8,448,004.22	24,983,189.26
January 2036		0.00	8,311,836.00	24,572,291.59
February 2036		0.00	8,177,546.43	24,167,247.50
March 2036		0.00	8,045,111.42	23,767,979.06
April 2036		0.00	7,914,507.17	23,374,409.35
May 2036		0.00	7,785,710.17	22,986,462.45
June 2036		0.00	7,658,697.20	22,604,063.39
July 2036		0.00	7,533,445.33	22,227,138.18
August 2036		0.00	7,409,931.91	21,855,613.77
September 2036		0.00	7,288,134.56	21,489,418.06
October 2036		0.00	7,168,031.21	21,128,479.85
November 2036		0.00	7,049,600.01	20,772,728.89
December 2036		0.00	6,932,819.42	20,422,095.80
January 2037		0.00	6,817,668.17	20,076,512.11
February 2037		0.00	6,704,125.21	19,735,910.24
March 2037		0.00	6,592,169.79	19,400,223.45
April 2037		0.00	6,481,781.41	19,069,385.88
May 2037		0.00	6,372,939.82	18,743,332.52
June 2037		0.00	6,265,625.00	18,421,999.19
July 2037		0.00	6,159,817.21	18,105,322.52
August 2037		0.00	6,055,496.94	17,793,239.99
September 2037		0.00	5,952,644.91	17,485,689.85
October 2037		0.00	5,851,242.11	17,182,611.19
November 2037		0.00	5,751,269.73	16,883,943.84
December 2037		0.00	5,652,709.22	16,589,628.43
January 2038		0.00	5,555,542.24	16,299,606.35
February 2038		0.00	5,459,750.70	16,013,819.76
March 2038		0.00	5,365,316.71	15,732,211.54
April 2038		0.00	5,272,222.62	15,454,725.34
May 2038		0.00	5,180,451.00	15,181,305.50
June 2038		0.00	5,089,984.61	14,911,897.12
July 2038		0.00	5,000,806.46	14,646,445.97
August 2038		0.00	4,912,899.75	14,384,898.56
September 2038		0.00	4,826,247.89	14,127,202.07
October 2038		0.00	4,740,834.51	13,873,304.36
November 2038		0.00	4,656,643.43	13,623,153.97
December 2038		0.00	4,573,658.67	13,376,700.12
January 2039		0.00	4,491,864.45	13,133,892.67
February 2039		0.00	4,411,245.21	12,894,682.14
March 2039		0.00	4,331,785.55	12,659,019.68
April 2039		0.00	4,253,470.29	12,426,857.08
May 2039		0.00	4,176,284.41	12,198,146.77

Distribution Date	 Class CB	_	Class PA	Classes DB and FD (in the aggregate)
June 2039	\$ 0.00	\$	4,100,213.10	\$ 11,972,841.77
July 2039	0.00		4,025,241.73	11,750,895.73
August 2039	0.00		3,951,355.85	11,532,262.89
September 2039	0.00		3,878,541.19	11,316,898.10
October 2039	0.00		3,806,783.66	11,104,756.78
November 2039	0.00		3,736,069.36	10,895,794.93
December 2039	0.00		3,666,384.52	10,689,969.14
January 2040	0.00		3,597,715.60	10,487,236.56
February 2040	0.00		3,530,049.19	10,287,554.87
March 2040	0.00		3,463,372.06	10,090,882.33
April 2040	0.00		3,397,671.14	9,897,177.74
May 2040	0.00		3,332,933.54	9,706,400.43
June 2040	0.00		3,269,146.51	9,518,510.27
July 2040	0.00		3,206,297.47	9,333,467.63
August 2040	0.00		3,144,374.01	9,151,233.43
September 2040	0.00		3,083,363.84	8,971,769.07
October 2040	0.00		3,023,254.88	8,795,036.46
November 2040	0.00		2,964,035.14	8,620,998.04
December 2040	0.00		2,905,692.82	8,449,616.69
January 2041	0.00		2,848,216.27	8,280,855.81
February 2041	0.00		2,791,593.96	8,114,679.27
March 2041	0.00		2,735,814.53	7,951,051.41
April 2041	0.00		2,680,866.74	7,789,937.03
May 2041	0.00		2,626,739.51	7,631,301.40
June 2041	0.00		2,573,421.90	7,475,110.26
July 2041	0.00		2,520,903.10	7,321,329.76
August 2041	0.00		2,469,172.43	7,169,926.52
September 2041	0.00		2,418,219.35	7,020,867.60
October 2041	0.00		2,368,033.47	6,874,120.49
November 2041	0.00		2,318,604.51	6,729,653.08
December 2041	0.00		2,269,922.32	6,587,433.73
January 2042	0.00		2,221,976.90	6,447,431.17
February 2042	0.00		2,174,758.34	6,309,614.56
March 2042	0.00		2,128,256.88	6,173,953.48
April 2042	0.00		2,082,462.90	6,040,417.88
May 2042	0.00		2,037,366.86	5,908,978.12
June 2042	0.00		1,992,959.37	5,779,604.96
July 2042	0.00		1,949,231.14	5,652,269.53
August 2042	0.00		1,906,173.03	5,526,943.35
September 2042	0.00		1,863,775.97	5,403,598.30
October 2042	0.00		1,822,031.05	5,282,206.66
November 2042	0.00		1,780,929.44	5,162,741.03
December 2042	0.00		1,740,462.44	5,045,174.43
January 2043	0.00		1,700,621.45	4,929,480.18
February 2043	0.00		1,661,397.99	4,815,631.99
March 2043	0.00		1,622,783.68	4,703,603.90
April 2043	0.00		1,584,770.24	4,593,370.30
May 2043	0.00		1,547,349.52	4,484,905.91

Distribution Date	 Class CB	Class PA	asses DB and FD n the aggregate)
June 2043	\$ 0.00	\$ 1,510,513.44	\$ 4,378,185.80
July 2043	0.00	1,474,254.05	4,273,185.36
August 2043	0.00	1,438,563.49	4,169,880.30
September 2043	0.00	1,403,434.00	4,068,246.67
October 2043	0.00	1,368,857.92	3,968,260.81
November 2043	0.00	1,334,827.69	3,869,899.40
December 2043	0.00	1,301,335.85	3,773,139.42
January 2044	0.00	1,268,375.03	3,677,958.15
February 2044	0.00	1,235,937.94	3,584,333.18
March 2044	0.00	1,204,017.41	3,492,242.40
April 2044	0.00	1,172,606.35	3,401,663.98
May 2044	0.00	1,141,697.75	3,312,576.38
June 2044	0.00	1,111,284.71	3,224,958.38
July 2044	0.00	1,081,360.40	3,138,788.99
August 2044	0.00	1,051,918.08	3,054,047.55
September 2044	0.00	1,022,951.12	2,970,713.65
October 2044	0.00	994,452.95	2,888,767.14
November 2044	0.00	966,417.08	2,808,188.16
December 2044	0.00	938,837.13	2,728,957.11
January 2045	0.00	911,706.78	2,651,054.66
February 2045	0.00	885,019.79	2,574,461.72
March 2045	0.00	858,770.02	2,499,159.46
April 2045	0.00	832,951.39	2,425,129.31
May 2045	0.00	807,557.91	2,352,352.94
June 2045	0.00	782,583.65	2,280,812.28
July 2045	0.00	758,022.79	2,210,489.48
August 2045	0.00	733,869.54	2,141,366.95
September 2045	0.00	710,118.23	2,073,427.32
October 2045	0.00	686,763.22	2,006,653.47
November 2045	0.00	663,798.99	1,941,028.49
December 2045	0.00	641,220.04	1,876,535.71
January 2046	0.00	619,020.99	1,813,158.68
February 2046	0.00	597,196.49	1,750,881.17
March 2046	0.00	575,741.28	1,689,687.18
April 2046	0.00	554,650.17	1,629,560.90
May 2046	0.00	533,918.02	1,570,486.76
June 2046	0.00	513,539.78	1,512,449.39
July 2046	0.00	493,510.44	1,455,433.63
August 2046	0.00	473,825.08	1,399,424.50
September 2046	0.00	454,478.83	1,344,407.26
October 2046	0.00	435,466.88	1,290,367.35
November 2046	0.00	416,784.50	1,237,290.41
December 2046	0.00	398,427.00	1,185,162.26
January 2047	0.00	380,389.75	1,133,968.94
February 2047	0.00	362,668.22	1,083,696.66
March 2047	0.00	345,257.88	1,034,331.81
April 2047	0.00	328,154.31	985,860.99
May 2047	0.00	311,353.12	938,270.96

Distribution Date	_	Class CB	 Class PA	sses DB and FD the aggregate)
June 2047	\$	0.00	\$ 294,849.98	\$ 891,548.66
July 2047		0.00	278,640.62	845,681.23
August 2047		0.00	262,720.84	800,655.95
September 2047		0.00	247,086.47	756,460.31
October 2047		0.00	231,733.40	713,081.94
November 2047		0.00	216,657.60	670,508.66
December 2047		0.00	201,855.06	628,728.43
January 2048		0.00	187,321.83	587,729.41
February 2048		0.00	173,054.03	547,499.88
March 2048		0.00	159,047.81	508,028.33
April 2048		0.00	145,299.38	469,303.35
May 2048		0.00	131,805.00	431,313.74
June 2048		0.00	118,560.98	394,048.41
July 2048		0.00	105,563.67	357,496.45
August 2048		0.00	92,809.48	321,647.08
September 2048		0.00	80,294.87	286,489.70
October 2048		0.00	68,016.32	252,013.80
November 2048		0.00	55,970.38	218,209.08
December 2048		0.00	44,153.65	185,065.32
January 2049		0.00	32,562.76	152,572.48
February 2049		0.00	21,194.40	120,720.66
March 2049		0.00	10,045.27	89,500.06
April 2049		0.00	0.00	58,901.06
May 2049		0.00	0.00	28,914.13
June 2049 and thereafter		0.00	0.00	0.00

Distribution Date	Classes EA and EF (in the aggregate)	Classes FG and GA (in the aggregate)	Classes FH and HA (in the aggregate)
Initial Balance	\$115,341,000.00	\$151,717,000.00	\$207,712,000.00
October 2019	115,035,384.08	151,340,310.53	207,215,480.30
November 2019	114,689,716.82	150,923,361.37	206,660,218.93
December 2019	114,304,105.59	150,466,297.32	206,046,401.44
January 2020	113,878,693.40	149,969,292.06	205,374,258.37
February 2020	113,413,658.90	149,432,548.04	204,644,065.22
March 2020	112,909,216.31	148,856,296.44	203,856,142.30
April 2020	112,365,615.33	148,240,796.95	203,010,854.56
May 2020	111,783,140.97	147,586,337.67	202,108,611.35
June 2020	111,162,113.35	146,893,234.86	201,149,866.17
July 2020	110,502,887.43	146,161,832.72	200,135,116.24
August 2020	109,805,852.69	145,392,503.13	199,064,902.16
September 2020	109,071,432.74	144,585,645.30	197,939,807.43
October 2020	108,300,084.94	143,741,685.45	196,760,457.89
November 2020	107,492,299.89	142,861,076.45	195,527,521.21
December 2020	106,648,600.88	141,944,297.40	194,241,706.18
January 2021	105,769,543.38	140,991,853.15	192,903,762.09
February 2021	104,855,714.35	140,004,273.90	191,514,477.95
March 2021	103,907,731.59	138,982,114.63	190,074,681.69
April 2021	102,926,243.00	137,925,954.62	188,585,239.35
May 2021	101,911,925.82	136,836,396.83	187,047,054.14
June 2021	100,865,485.78	135,714,067.34	185,461,065.52
July 2021	99,787,656.29	134,559,614.71	183,828,248.20
August 2021	98,679,197.48	133,373,709.35	182,149,611.09
September 2021	97,540,895.28	132,157,042.82	180,426,196.22
October 2021	96,373,560.40	130,910,327.11	178,659,077.58
November 2021	95,178,027.36	129,634,293.98	176,849,360.02
December 2021	93,955,153.34	128,329,694.11	174,998,177.93
January 2022	92,705,817.18	126,997,296.41	173,106,694.08
February 2022	91,430,918.14	125,637,887.17	171,176,098.29
March 2022	90,167,687.34	124,288,785.08	169,260,952.92
April 2022	88,916,010.36	122,949,909.63	167,361,128.85
May 2022	87,675,773.86	121,621,180.88	165,476,497.96
June 2022	86,446,865.57	120,302,519.51	163,606,933.16
July 2022	85,229,174.24	118,993,846.77	161,752,308.36
August 2022	84,022,589.65	117,695,084.50	159,912,498.48
September 2022	82,827,002.64	116,406,155.11	158,087,379.40
October 2022	81,642,305.04	115,126,981.61	156,276,828.02
November 2022	80,468,389.68	113,857,487.55	154,480,722.19
December 2022	79,305,150.39	112,597,597.06	152,698,940.73
January 2023	78,152,482.02	111,347,234.84	150,931,363.42
February 2023	77,010,280.34	110,106,326.14	149,177,870.99
March 2023	75,878,442.14	108,874,796.77	147,438,345.13
April 2023	74,756,865.14	107,652,573.08	145,712,668.43
May 2023	73,645,448.01	106,439,581.97	144,000,724.45
June 2023	72,544,090.40	105,235,750.89	142,302,397.64
July 2023	71,452,692.83	104,041,007.82	140,617,573.38
August 2023	70,371,156.80	102,855,281.27	138,946,137.95

Distribution Date	Classes EA and EF (in the aggregate)	Classes FG and GA (in the aggregate)	Classes FH and HA (in the aggregate)
September 2023	\$ 69,299,384.70	\$101,678,500.29	\$137,287,978.53
October 2023	68,237,279.83	100,510,594.45	135,642,983.20
November 2023	67,184,746.39	99,351,493.84	134,011,040.91
December 2023	66,141,689.47	98,201,129.08	132,392,041.50
January 2024	65,108,015.04	97,059,431.29	130,785,875.69
February 2024	64,083,629.95	95,926,332.11	129,192,435.03
March 2024	63,068,441.90	94,801,763.68	127,611,611.97
April 2024	62,062,359.47	93,685,658.65	126,043,299.78
May 2024	61,065,292.08	92,577,950.16	124,487,392.59
June 2024	60,077,149.97	91,478,571.86	122,943,785.36
July 2024	59,097,844.25	90,387,457.88	121,412,373.87
August 2024	58,127,286.84	89,304,542.83	119,893,054.75
September 2024	57,165,390.47	88,229,761.83	118,385,725.42
October 2024	56,212,068.68	87,163,050.47	116,890,284.13
November 2024	55,267,235.82	86,104,344.80	115,406,629.92
December 2024	54,330,807.05	85,053,581.37	113,934,662.64
January 2025	53,402,698.29	84,010,697.18	112,474,282.93
February 2025	52,482,826.26	82,975,629.71	111,025,392.21
March 2025	51,571,108.43	81,948,316.90	109,587,892.67
April 2025	50,667,463.07	80,928,697.15	108,161,687.29
May 2025	49,771,809.19	79,916,709.32	106,746,679.80
June 2025	48,884,066.54	78,912,292.70	105,342,774.71
July 2025	48,004,155.63	77,915,387.07	103,949,877.28
August 2025	47,131,997.71	76,925,932.63	102,567,893.49
September 2025	46,274,780.92	75,943,870.02	101,196,730.10
October 2025	45,432,660.14	74,969,140.34	99,836,294.59
November 2025	44,605,374.99	74,001,685.10	98,486,495.16
December 2025	43,792,669.56	73,041,446.27	97,147,240.76
January 2026	42,994,292.26	72,088,366.23	95,818,441.03
February 2026	42,209,995.80	71,142,387.80	94,500,006.35
March 2026	41,439,537.10	70,203,454.21	93,191,847.79
April 2026	40,682,677.19	69,271,509.14	91,893,877.13
May 2026	39,939,181.20	68,346,496.65	90,606,006.83
June 2026	39,208,818.22	67,428,361.23	89,333,716.41
July 2026	38,491,361.32	66,517,047.79	88,078,240.14
August 2026	37,786,587.39	65,612,501.63	86,839,363.31
September 2026	37,094,277.14	64,716,016.56	85,616,873.89
October 2026	36,414,215.02	63,830,974.77	84,410,562.48
November 2026	35,746,189.14	62,957,235.69	83,220,222.31
December 2026	35,089,991.22	62,094,660.43	82,045,649.21
January 2027	34,445,416.55	61,243,111.75	80,886,641.56
February 2027	33,812,263.89	60,402,454.07	79,743,000.24
March 2027	33,190,335.43	59,572,553.45	78,614,528.67
April 2027	32,579,436.74	58,753,277.54	77,501,032.68
May 2027	31,979,376.72	57,944,495.58	76,402,320.56
June 2027	31,389,967.50	57,146,078.39	75,318,203.01
July 2027	30,811,024.45	56,357,898.33	74,248,493.07
August 2027	30,242,366.05	55,579,829.33	73,193,006.16

Distribution Date	Classes EA and EF (in the aggregate)	Classes FG and GA (in the aggregate)	Classes FH and HA (in the aggregate)
September 2027	\$ 29,683,813.92	\$ 54,811,746.78	\$ 72,151,559.98
October 2027	29,135,192.69	54,053,527.60	71,123,974.54
November 2027	28,596,330.01	53,305,050.21	70,110,072.08
December 2027	28,067,056.47	52,566,194.44	69,109,677.10
January 2028	27,547,205.53	51,836,841.61	68,122,616.28
February 2028	27,036,613.53	51,116,874.45	67,148,718.48
March 2028	26,535,119.58	50,406,177.10	66,187,814.70
April 2028	26,042,565.56	49,704,635.11	65,239,738.09
May 2028	25,558,796.03	49,012,135.38	64,304,323.84
June 2028	25,083,658.23	48,328,566.20	63,381,409.27
July 2028	24,617,002.00	47,653,817.18	62,470,833.69
August 2028	24,158,679.75	46,987,779.29	61,572,438.47
September 2028	23,708,546.42	46,330,344.78	60,686,066.93
October 2028	23,266,459.42	45,681,407.23	59,811,564.40
November 2028	22,832,278.63	45,040,861.48	58,948,778.14
December 2028	22,405,866.29	44,408,603.65	58,097,557.30
January 2029	21,987,087.02	43,784,531.11	57,257,752.97
February 2029	21,575,807.76	43,168,542.46	56,429,218.08
March 2029	21,171,897.72	42,560,537.53	55,611,807.43
April 2029	20,775,228.36	41,960,417.35	54,805,377.64
May 2029	20,385,673.34	41,368,084.18	54,009,787.12
June 2029	20,003,108.48	40,783,441.40	53,224,896.07
July 2029	19,627,411.74	40,206,393.61	52,450,566.47
August 2029	19,258,463.15	39,636,846.53	51,686,662.01
September 2029	18,896,144.83	39,074,707.03	50,933,048.09
October 2029	18,540,340.90	38,519,883.12	50,189,591.85
November 2029	18,190,937.47	37,972,283.88	49,456,162.04
December 2029	17,847,822.62	37,431,819.53	48,732,629.12
January 2030	17,510,886.33	36,898,401.36	48,018,865.14
February 2030	17,180,020.47	36,371,941.73	47,314,743.80
March 2030	16,855,118.80	35,852,354.07	46,620,140.35
April 2030	16,536,076.86	35,339,552.84	45,934,931.65
May 2030	16,222,792.02	34,833,453.54	45,258,996.10
June 2030	15,915,163.39	34,333,972.71	44,592,213.61
July 2030	15,613,091.83	33,841,027.88	43,934,465.65
August 2030	15,316,479.90	33,354,537.59	43,285,635.15
September 2030	15,025,231.82	32,874,421.35	42,645,606.53
October 2030	14,739,253.49	32,400,599.68	42,014,265.66
November 2030	14,458,452.40	31,932,994.02	41,391,499.87
December 2030	14,182,737.64	31,471,526.78	40,777,197.90
January 2031	13,912,019.87	31,016,121.33	40,171,249.89
February 2031	13,646,211.29	30,566,701.94	39,573,547.37
March 2031	13,385,225.61	30,123,193.82	38,983,983.26
April 2031	13,128,978.01	29,685,523.06	38,402,451.80
May 2031	12,877,385.16	29,253,616.67	37,828,848.60
June 2031	12,630,365.14	28,827,402.54	37,263,070.56
July 2031	12,387,837.47	28,406,809.43	36,705,015.91
August 2031	12,149,723.02	27,991,766.98	36,154,584.15

Distribution Date	Classes EA and EF (in the aggregate)	Classes FG and GA (in the aggregate)	Classes FH and HA (in the aggregate)
September 2031	\$ 11,915,944.06	\$ 27,582,205.66	\$ 35,611,676.06
October 2031	11,686,424.19	27,178,056.81	35,076,193.67
November 2031	11,461,088.31	26,779,252.58	34,548,040.26
December 2031	11,239,862.64	26,385,725.96	34,027,120.31
January 2032	11,022,674.66	25,997,410.76	33,513,339.55
February 2032	10,809,453.12	25,614,241.57	33,006,604.86
March 2032	10,600,127.97	25,236,153.79	32,506,824.34
April 2032	10,394,630.41	24,863,083.62	32,013,907.22
May 2032	10,192,892.78	24,494,968.02	31,527,763.90
June 2032	9,994,848.64	24,131,744.71	31,048,305.91
July 2032	9,800,432.66	23,773,352.19	30,575,445.91
August 2032	9,609,580.66	23,419,729.68	30,109,097.65
September 2032	9,422,229.57	23,070,817.17	29,649,176.00
October 2032	9,238,317.40	22,726,555.36	29,195,596.88
November 2032	9,057,783.24	22,386,885.68	28,748,277.30
December 2032	8,880,567.24	22,051,750.28	28,307,135.32
January 2033	8,706,610.57	21,721,092.00	27,872,090.04
February 2033	8,535,855.44	21,394,854.39	27,443,061.57
March 2033	8,368,245.04	21,072,981.69	27,019,971.06
April 2033	8,203,723.57	20,755,418.80	26,602,740.65
May 2033	8,042,236.17	20,442,111.32	26,191,293.46
June 2033	7,883,728.95	20,133,005.49	25,785,553.62
July 2033	7,728,148.94	19,828,048.22	25,385,446.19
August 2033	7,575,444.11	19,527,187.07	24,990,897.19
September 2033	7,425,563.31	19,230,370.23	24,601,833.60
October 2033	7,278,456.30	18,937,546.53	24,218,183.32
November 2033	7,134,073.70	18,648,665.42	23,839,875.15
December 2033	6,992,366.97	18,363,676.98	23,466,838.82
January 2034	6,853,288.46	18,082,531.89	23,099,004.94
February 2034	6,716,791.30	17,805,181.43	22,736,305.02
March 2034	6,582,829.46	17,531,577.49	22,378,671.43
April 2034	6,451,357.71	17,261,672.52	22,026,037.40
May 2034	6,322,331.60	16,995,419.60	21,678,337.02
June 2034	6,195,707.46	16,732,772.34	21,335,505.22
July 2034	6,071,442.37	16,473,684.94	20,997,477.75
August 2034	5,949,494.17	16,218,112.15	20,664,191.19
September 2034	5,829,821.41	15,966,009.28	20,335,582.93
October 2034	5,712,383.41	15,717,332.20	20,011,591.15
November 2034	5,597,140.14	15,472,037.29	19,692,154.82
December 2034	5,484,052.31	15,230,081.50	19,377,213.70
January 2035	5,373,081.30	14,991,422.29	19,066,708.32
February 2035	5,264,189.17	14,756,017.64	18,760,579.95
March 2035	5,157,338.63	14,523,826.04	18,458,770.63
April 2035	5,052,493.05	14,294,806.52	18,161,223.14
May 2035	4,949,616.44	14,068,918.58	17,867,880.99
June 2035	4,848,673.43	13,846,122.23	17,578,688.39
July 2035	4,749,629.27	13,626,377.98	17,293,590.31
August 2035	4,652,449.84	13,409,646.81	17,012,532.38

Distribution Date	asses EA and EF n the aggregate)	Classes FG and GA (in the aggregate)	Classes FH and HA (in the aggregate)
September 2035	\$ 4,557,101.59	\$ 13,195,890.18	\$ 16,735,460.95
October 2035	4,463,551.55	12,985,070.04	16,462,323.05
November 2035	4,371,767.36	12,777,148.80	16,193,066.40
December 2035	4,281,717.20	12,572,089.33	15,927,639.36
January 2036	4,193,369.81	12,369,854.96	15,665,990.99
February 2036	4,106,694.49	12,170,409.46	15,408,070.98
March 2036	4,021,661.07	11,973,717.06	15,153,829.67
April 2036	3,938,239.90	11,779,742.44	14,903,218.04
May 2036	3,856,401.86	11,588,450.69	14,656,187.69
June 2036	3,776,118.35	11,399,807.34	14,412,690.85
July 2036	3,697,361.24	11,213,778.35	14,172,680.36
August 2036	3,620,102.93	11,030,330.11	13,936,109.68
September 2036	3,544,316.28	10,849,429.39	13,702,932.84
October 2036	3,469,974.64	10,671,043.41	13,473,104.48
November 2036	3,397,051.82	10,495,139.78	13,246,579.82
December 2036	3,325,522.09	10,321,686.49	13,023,314.66
January 2037	3,255,360.18	10,150,651.95	12,803,265.35
February 2037	3,186,541.26	9,982,004.96	12,586,388.83
March 2037	3,119,040.93	9,815,714.70	12,372,642.57
April 2037	3,052,835.24	9,651,750.71	12,161,984.60
May 2037	2,987,900.63	9,490,082.95	11,954,373.48
June 2037	2,924,213.98	9,330,681.72	11,749,768.33
July 2037	2,861,752.57	9,173,517.70	11,548,128.76
August 2037	2,800,494.07	9,018,561.92	11,349,414.92
September 2037	2,740,416.57	8,865,785.78	11,153,587.49
October 2037	2,681,498.52	8,715,161.04	10,960,607.62
November 2037	2,623,718.76	8,566,659.80	10,770,436.99
December 2037	2,567,056.51	8,420,254.50	10,583,037.77
January 2038	2,511,491.34	8,275,917.94	10,398,372.61
February 2038	2,457,003.20	8,133,623.25	10,216,404.64
March 2038	2,403,572.38	7,993,343.88	10,037,097.49
April 2038	2,351,179.52	7,855,053.63	9,860,415.22
May 2038	2,299,805.62	7,718,726.61	9,686,322.40
June 2038	2,249,431.99	7,584,337.26	9,514,784.02
July 2038	2,200,040.29	7,451,860.34	9,345,765.56
August 2038	2,151,612.49	7,321,270.92	9,179,232.90
September 2038	2,104,130.89	7,192,544.38	9,015,152.40
October 2038	2,057,578.10	7,065,656.39	8,853,490.85
November 2038	2,011,937.05	6,940,582.96	8,694,215.45
December 2038	1,967,190.95	6,817,300.36	8,537,293.84
January 2039	1,923,323.32	6,695,785.18	8,382,694.09
February 2039	1,880,317.97	6,576,014.30	8,230,384.66
March 2039	1,838,159.00	6,457,964.87	8,080,334.44
April 2039	1,796,830.80	6,341,614.35	7,932,512.72
May 2039	1,756,318.03	6,226,940.47	7,786,889.16
June 2039	1,716,605.61	6,113,921.22	7,643,433.86
July 2039	1,677,678.74	6,002,534.90	7,502,117.28
August 2039	1,639,522.90	5,892,760.04	7,362,910.26

Distribution Date	asses EA and EF n the aggregate)	asses FG and GA n the aggregate)	asses FH and HA n the aggregate)
September 2039	\$ 1,602,123.80	\$ 5,784,575.49	\$ 7,225,784.04
October 2039	1,565,467.41	5,677,960.31	7,090,710.23
November 2039	1,529,539.97	5,572,893.85	6,957,660.78
December 2039	1,494,327.94	5,469,355.73	6,826,608.05
January 2040	1,459,818.04	5,367,325.79	6,697,524.72
February 2040	1,425,997.23	5,266,784.15	6,570,383.86
March 2040	1,392,852.67	5,167,711.18	6,445,158.86
April 2040	1,360,371.78	5,070,087.47	6,321,823.48
May 2040	1,328,542.21	4,973,893.88	6,200,351.80
June 2040	1,297,351.80	4,879,111.49	6,080,718.27
July 2040	1,266,788.64	4,785,721.64	5,962,897.64
August 2040	1,236,841.01	4,693,705.88	5,846,865.01
September 2040	1,207,497.41	4,603,046.01	5,732,595.79
October 2040	1,178,746.53	4,513,724.05	5,620,065.74
November 2040	1,150,577.30	4,425,722.24	5,509,250.90
December 2040	1,122,978.81	4,339,023.05	5,400,127.64
January 2041	1,095,940.37	4,253,609.18	5,292,672.65
February 2041	1,069,451.46	4,169,463.53	5,186,862.91
March 2041	1,043,501.76	4,086,569.22	5,082,675.70
April 2041	1,018,081.15	4,004,909.59	4,980,088.62
May 2041	993,179.68	3,924,468.18	4,879,079.53
June 2041	968,787.56	3,845,228.74	4,779,626.60
July 2041	944,895.20	3,767,175.24	4,681,708.28
August 2041	921,493.18	3,690,291.83	4,585,303.32
September 2041	898,572.25	3,614,562.87	4,490,390.72
October 2041	876,123.31	3,539,972.91	4,396,949.77
November 2041	854,137.44	3,466,506.70	4,304,960.05
December 2041	832,605.88	3,394,149.20	4,214,401.37
January 2042	811,520.02	3,322,885.52	4,125,253.83
February 2042	790,871.42	3,252,701.00	4,037,497.79
March 2042	770,651.77	3,183,581.14	3,951,113.87
April 2042	750,852.93	3,115,511.63	3,866,082.94
May 2042	731,466.90	3,048,478.34	3,782,386.11
June 2042	712,485.83	2,982,467.32	3,700,004.76
July 2042	693,901.99	2,917,464.80	3,618,920.51
August 2042	675,707.83	2,853,457.18	3,539,115.22
September 2042	657,895.90	2,790,431.03	3,460,570.98
October 2042	640,458.89	2,728,373.09	3,383,270.12
November 2042	623,389.66	2,667,270.29	3,307,195.22
December 2042	606,681.14	2,607,109.69	3,232,329.08
January 2043	590,326.44	2,547,878.53	3,158,654.71
February 2043	574,318.76	2,489,564.23	3,086,155.37
March 2043	558,651.46	2,432,154.35	3,014,814.52
April 2043	543,317.98	2,375,636.60	2,944,615.86
May 2043	528,311.90	2,319,998.87	2,875,543.30
June 2043	513,626.92	2,265,229.19	2,807,580.94
July 2043	499,256.85	2,211,315.75	2,740,713.12
August 2043	485,195.62	2,158,246.87	2,674,924.38

Distribution Date	sses EA and EF the aggregate)	asses FG and GA n the aggregate)	asses FH and HA n the aggregate)
September 2043	\$ 471,437.25	\$ 2,106,011.05	\$ 2,610,199.46
October 2043	457,975.89	2,054,596.92	2,546,523.29
November 2043	444,805.80	2,003,993.25	2,483,881.03
December 2043	431,921.32	1,954,188.96	2,422,258.02
January 2044	419,316.91	1,905,173.11	2,361,639.79
February 2044	406,987.14	1,856,934.91	2,302,012.06
March 2044	394,926.66	1,809,463.68	2,243,360.76
April 2044	383,130.24	1,762,748.92	2,185,672.00
May 2044	371,592.72	1,716,780.22	2,128,932.05
June 2044	360,309.05	1,671,547.32	2,073,127.40
July 2044	349,274.28	1,627,040.11	2,018,244.70
August 2044	338,483.53	1,583,248.59	1,964,270.77
September 2044	327,932.03	1,540,162.89	1,911,192.63
October 2044	317,615.09	1,497,773.26	1,858,997.45
November 2044	307,528.10	1,456,070.10	1,807,672.58
December 2044	297,666.54	1,415,043.90	1,757,205.55
January 2045	288,025.98	1,374,685.29	1,707,584.04
February 2045	278,602.06	1,334,985.04	1,658,795.90
March 2045	269,390.51	1,295,933.99	1,610,829.15
April 2045	260,387.14	1,257,523.15	1,563,671.95
May 2045	251,587.83	1,219,743.61	1,517,312.65
June 2045	242,988.53	1,182,586.59	1,471,739.73
July 2045	234,585.28	1,146,043.41	1,426,941.83
August 2045	226,374.18	1,110,105.52	1,382,907.76
September 2045	218,351.43	1,074,764.48	1,339,626.45
October 2045	210,513.26	1,040,011.94	1,297,087.00
November 2045	202,856.00	1,005,839.66	1,255,278.65
December 2045	195,376.03	972,239.54	1,214,190.78
January 2046	188,069.81	939,203.54	1,173,812.93
February 2046	180,933.87	906,723.74	1,134,134.77
March 2046	173,964.78	874,792.35	1,095,146.09
April 2046	167,159.21	843,401.64	1,056,836.85
May 2046	160,513.85	812,543.99	1,019,197.13
June 2046	154,025.49	782,211.91	982,217.15
July 2046	147,690.96	752,397.96	945,887.24
August 2046	141,507.15	723,094.84	910,197.89
September 2046	135,471.01	694,295.31	875,139.70
October 2046	129,579.55	665,992.24	840,703.41
November 2046	123,829.85	638,178.60	806,879.88
December 2046	118,219.00	610,847.44	773,660.08
January 2047	112,744.20	583,991.90	741,035.12
February 2047	107,402.67	557,605.21	708,996.22
March 2047	102,191.68	531,680.70	677,534.73
April 2047	97,108.56	506,211.78	646,642.11
May 2047	92,150.71	481,191.93	616,309.94
June 2047	87,315.54	456,614.74	586,529.91
July 2047	82,600.53	432,473.87	557,293.82
August 2047	78,003.22	408,763.07	528,593.58

Distribution Date	Classes EA and EF (in the aggregate)		Classes FG and GA (in the aggregate)		Classes FH and HA (in the aggregate)	
September 2047	\$	73,521.17	\$	385,476.16	\$	500,421.23
October 2047		69,152.00		362,607.06		472,768.90
November 2047		64,893.38		340,149.75		445,628.83
December 2047		60,743.02		318,098.30		418,993.36
January 2048		56,698.66		296,446.85		392,854.95
February 2048		52,758.10		275,189.62		367,206.16
March 2048		48,919.17		254,320.92		342,039.63
April 2048		45,179.77		233,835.12		317,348.13
May 2048		41,537.79		213,726.66		293,124.52
June 2048		37,991.20		193,990.06		269,361.74
July 2048		34,538.00		174,619.92		246,052.85
August 2048		31,176.22		155,610.89		223,190.99
September 2048		27,903.93		136,957.71		200,769.40
October 2048		24,719.25		118,655.19		178,781.41
November 2048		21,620.31		100,698.19		157,220.46
December 2048		18,605.30		83,081.66		136,080.04
January 2049		15,672.44		65,800.60		115,353.77
February 2049		12,819.97		48,850.09		95,035.34
March 2049		10,046.18		32,225.25		75,118.53
April 2049		7,349.39		15,921.30		55,597.19
May 2049		4,727.94		0.00		36,465.28
June 2049		2,180.22		0.00		17,716.84
July 2049 and thereafter		0.00		0.00		0.00

Distribution Date	Classes FJ and JA (in the aggregate)	Classes FK and KE (in the aggregate)	Classes UE and UF (in the aggregate)
Initial Balance	\$228,884,000.00	\$216,423,000.00	\$134,716,000.00
October 2019	228,378,746.67	215,843,290.06	134,418,618.89
November 2019	227,812,715.50	215,202,420.43	134,085,465.26
December 2019	227,186,080.25	214,500,631.76	133,716,641.39
January 2020	226,499,058.14	213,738,211.66	133,312,275.13
February 2020	225,751,909.82	212,915,494.57	132,872,519.89
March 2020	224,944,939.31	212,032,861.54	132,397,554.62
April 2020	224,078,493.80	211,090,740.04	131,887,583.64
May 2020	223,152,963.43	210,089,603.61	131,342,836.62
June 2020	222,168,781.11	209,029,971.48	130,763,568.32
July 2020	221,126,422.13	207,912,408.21	130,150,058.51
August 2020	220,026,403.85	206,737,523.15	129,502,611.69
September 2020	218,869,285.25	205,505,969.92	128,821,556.87
October 2020	217,655,666.50	204,218,445.77	128,107,247.29
November 2020	216,386,188.44	202,875,690.97	127,360,060.14
December 2020	215,061,531.99	201,478,488.07	126,580,396.18
January 2021	213,682,417.55	200,027,661.11	125,768,679.44
February 2021	212,249,604.37	198,524,074.80	124,925,356.79
March 2021	210,763,889.77	196,968,633.66	124,050,897.51
April 2021	209,226,108.44	195,362,281.05	123,145,792.89
May 2021	207,637,131.62	193,705,998.16	122,210,555.72
June 2021	205,997,866.22	192,000,803.06	121,245,719.79
July 2021	204,309,253.97	190,247,749.50	120,251,839.37
August 2021	202,572,270.46	188,447,925.85	119,229,488.68
September 2021	200,787,924.13	186,602,453.89	118,179,261.27
October 2021	198,957,255.33	184,712,487.59	117,101,769.46
November 2021	197,081,335.18	182,779,211.83	115,997,643.69
December 2021	195,161,264.49	180,803,841.12	114,867,531.88
January 2022	193,198,172.68	178,787,618.21	113,712,098.76
February 2022	191,193,216.55	176,787,524.46	112,532,025.22
March 2022	189,147,579.09	174,803,425.14	111,328,007.54
April 2022	187,117,449.60	172,835,186.57	110,133,117.51
May 2022	185,102,706.93	170,882,676.13	108,947,283.83
June 2022	183,103,230.81	168,945,762.25	107,770,435.70
July 2022	181,118,901.85	167,024,314.41	106,602,502.86
August 2022	179,149,601.57	165,118,203.12	105,443,415.58
September 2022	177,195,212.36	163,227,299.90	104,293,104.63
October 2022	175,255,617.47	161,351,477.29	103,151,501.30
November 2022	173,330,701.04	159,490,608.86	102,018,537.38
December 2022	171,420,348.05	157,644,569.15	100,894,145.19
January 2023	169,524,444.33	155,813,233.72	99,778,257.53
February 2023	167,642,876.57	153,996,479.09	98,670,807.70
March 2023	165,775,532.29	152,194,182.77	97,571,729.50
April 2023	163,922,299.86	150,406,223.24	96,480,957.23
May 2023	162,083,068.45	148,632,479.93	95,398,425.65
June 2023	160,257,728.08	146,872,833.24	94,324,070.04
July 2023	158,446,169.57	145,127,164.49	93,257,826.13
August 2023	156,648,284.54	143,395,355.97	92,199,630.13

Distribution Date	Classes FJ and JA (in the aggregate)	Classes FK and KE (in the aggregate)	Classes UE and UF (in the aggregate)
September 2023	\$154,863,965.44	\$141,677,290.87	\$ 91,149,418.75
October 2023	153,093,105.50	139,972,853.33	90,107,129.13
November 2023	151,335,598.74	138,281,928.39	89,072,698.91
December 2023	149,591,339.98	136,604,402.00	88,046,066.16
January 2024	147,860,224.79	134,940,161.01	87,027,169.44
February 2024	146,142,149.56	133,289,093.18	86,015,947.75
March 2024	144,437,011.40	131,651,087.14	85,012,340.55
April 2024	142,744,708.22	130,026,032.41	84,016,287.73
May 2024	141,065,138.67	128,413,819.36	83,027,729.65
June 2024	139,398,202.15	126,814,339.27	82,046,607.09
July 2024	137,743,798.81	125,227,484.24	81,072,861.30
August 2024	136,101,829.53	123,653,147.25	80,106,433.92
September 2024	134,472,195.95	122,091,222.09	79,147,267.07
October 2024	132,854,800.42	120,541,603.43	78,195,303.26
November 2024	131,249,546.01	119,004,186.74	77,250,485.45
December 2024	129,656,336.53	117,478,868.33	76,312,757.03
January 2025	128,075,076.47	115,965,545.34	75,382,061.77
February 2025	126,505,671.06	114,464,115.70	74,458,343.91
March 2025	124,948,026.21	112,974,478.16	73,541,548.05
April 2025	123,402,048.54	111,496,532.27	72,631,619.25
May 2025	121,867,645.37	110,030,178.36	71,728,502.94
June 2025	120,344,724.68	108,575,317.55	70,832,144.97
July 2025	118,833,195.16	107,131,851.76	69,942,491.59
August 2025	117,332,966.15	105,699,683.67	69,059,489.45
September 2025	115,843,947.69	104,278,716.71	68,183,085.60
October 2025	114,366,050.48	102,868,855.12	67,313,227.46
November 2025	112,899,185.85	101,470,003.84	66,449,862.87
December 2025	111,443,265.83	100,082,068.60	65,592,940.03
January 2026	109,998,203.08	98,704,955.86	64,742,407.55
February 2026	108,563,910.92	97,338,572.82	63,898,214.40
March 2026	107,140,303.29	95,982,827.40	63,060,309.94
April 2026	105,727,294.79	94,637,628.27	62,228,643.89
May 2026	104,324,800.64	93,308,393.55	61,403,166.36
June 2026	102,932,736.70	91,996,723.22	60,583,827.82
July 2026	101,551,019.43	90,702,393.01	59,770,579.11
August 2026	100,179,565.95	89,425,181.49	58,963,371.44
September 2026	98,818,293.94	88,164,869.99	58,162,156.37
October 2026	97,469,038.56	86,921,242.55	57,368,014.02
November 2026	96,137,001.33	85,694,085.94	56,584,005.90
December 2026	94,821,970.76	84,483,189.60	55,810,007.53
January 2027	93,523,737.86	83,288,345.59	55,045,895.90
February 2027	92,242,096.17	82,109,348.57	54,291,549.50
March 2027	90,976,841.72	80,945,995.79	53,546,848.27
April 2027	89,727,772.97	79,798,087.01	52,811,673.59
May 2027	88,494,690.81	78,665,424.53	52,085,908.26
June 2027	87,277,398.50	77,547,813.10	51,369,436.51
July 2027	86,075,701.70	76,445,059.92	50,662,143.93
August 2027	84,889,408.38	75,356,974.62	49,963,917.50

Distribution Date	Classes FJ and JA (in the aggregate)	Classes FK and KE (in the aggregate)	Classes UE and UF (in the aggregate)
September 2027	\$ 83,718,328.82	\$ 74,283,369.21	\$ 49,274,645.56
October 2027	82,562,275.60	73,224,058.05	48,594,217.79
November 2027	81,421,063.52	72,178,857.82	47,922,525.20
December 2027	80,294,509.63	71,147,587.52	47,259,460.10
January 2028	79,182,433.18	70,130,068.40	46,604,916.11
February 2028	78,084,655.59	69,126,123.97	45,958,788.11
March 2028	77,001,000.42	68,135,579.93	45,320,972.27
April 2028	75,931,293.37	67,158,264.20	44,691,365.98
May 2028	74,875,362.23	66,194,006.82	44,069,867.90
June 2028	73,833,036.86	65,242,639.99	43,456,377.87
July 2028	72,804,149.17	64,303,998.02	42,850,796.97
August 2028	71,788,533.10	63,377,917.28	42,253,027.46
September 2028	70,786,024.58	62,464,236.21	41,662,972.76
October 2028	69,796,461.54	61,562,795.27	41,080,537.49
November 2028	68,819,683.82	60,673,436.94	40,505,627.39
December 2028	67,855,533.24	59,796,005.66	39,938,149.34
January 2029	66,903,853.49	58,930,347.83	39,378,011.36
February 2029	65,964,490.16	58,076,311.79	38,825,122.55
March 2029	65,037,290.71	57,233,747.79	38,279,393.13
April 2029	64,122,104.41	56,402,507.93	37,740,734.40
May 2029	63,218,782.40	55,582,446.22	37,209,058.72
June 2029	62,327,177.55	54,773,418.47	36,684,279.51
July 2029	61,447,144.57	53,975,282.31	36,166,311.26
August 2029	60,578,539.89	53,187,897.18	35,655,069.44
September 2029	59,721,221.67	52,411,124.26	35,150,470.60
October 2029	58,875,049.79	51,644,826.51	34,652,432.25
November 2029	58,039,885.84	50,888,868.59	34,160,872.93
December 2029	57,215,593.06	50,143,116.89	33,675,712.13
January 2030	56,402,036.34	49,407,439.44	33,196,870.36
February 2030	55,599,082.23	48,681,705.98	32,724,269.05
March 2030	54,806,598.87	47,965,787.87	32,257,830.59
April 2030	54,024,456.00	47,259,558.10	31,797,478.32
May 2030	53,252,524.93	46,562,891.24	31,343,136.50
June 2030	52,490,678.55	45,875,663.46	30,894,730.30
July 2030	51,738,791.26	45,197,752.49	30,452,185.81
August 2030	50,996,739.00	44,529,037.61	30,015,430.00
September 2030	50,264,399.20	43,869,399.60	29,584,390.73
October 2030	49,541,650.78	43,218,720.77	29,158,996.74
November 2030	48,828,374.12	42,576,884.91	28,739,177.62
December 2030	48,124,451.06	41,943,777.25	28,324,863.83
January 2031	47,429,764.86	41,319,284.51	27,915,986.65
February 2031	46,744,200.21	40,703,294.81	27,512,478.22
March 2031	46,067,643.17	40,095,697.71	27,114,271.48
April 2031	45,399,981.22	39,496,384.14	26,721,300.18
May 2031	44,741,103.18	38,905,246.43	26,333,498.91
June 2031	44,090,899.21	38,322,178.25	25,950,803.01
July 2031	43,449,260.84	37,747,074.63	25,573,148.62
August 2031	42,816,080.87	37,179,831.93	25,200,472.67

Distribution Date	Classes FJ and JA (in the aggregate)	Classes FK and KE (in the aggregate)	Classes UE and UF (in the aggregate)
September 2031	\$ 42,191,253.43	\$ 36,620,347.81	\$ 24,832,712.84
October 2031	41,574,673.93	36,068,521.23	24,469,807.57
November 2031	40,966,239.05	35,524,252.42	24,111,696.04
December 2031	40,365,846.72	34,987,442.89	23,758,318.19
January 2032	39,773,396.13	34,457,995.40	23,409,614.66
February 2032	39,188,787.66	33,935,813.91	23,065,526.84
March 2032	38,611,922.93	33,420,803.62	22,725,996.82
April 2032	38,042,704.75	32,912,870.94	22,390,967.39
May 2032	37,481,037.10	32,411,923.45	22,060,382.03
June 2032	36,926,825.15	31,917,869.90	21,734,184.94
July 2032	36,379,975.19	31,430,620.21	21,412,320.96
August 2032	35,840,394.69	30,950,085.43	21,094,735.62
September 2032	35,307,992.23	30,476,177.75	20,781,375.12
October 2032	34,782,677.48	30,008,810.46	20,472,186.29
November 2032	34,264,361.25	29,547,897.96	20,167,116.64
December 2032	33,752,955.41	29,093,355.74	19,866,114.30
January 2033	33,248,372.92	28,645,100.35	19,569,128.02
February 2033	32,750,527.78	28,203,049.42	19,276,107.21
March 2033	32,259,335.05	27,767,121.60	18,987,001.86
April 2033	31,774,710.84	27,337,236.60	18,701,762.60
May 2033	31,296,572.27	26,913,315.13	18,420,340.64
June 2033	30,824,837.46	26,495,278.93	18,142,687.80
July 2033	30,359,425.54	26,083,050.71	17,868,756.48
August 2033	29,900,256.64	25,676,554.17	17,598,499.66
September 2033	29,447,251.85	25,275,714.00	17,331,870.89
October 2033	29,000,333.22	24,880,455.83	17,068,824.32
November 2033	28,559,423.76	24,490,706.24	16,809,314.61
December 2033	28,124,447.43	24,106,392.74	16,553,297.00
January 2034	27,695,329.09	23,727,443.77	16,300,727.29
February 2034	27,271,994.56	23,353,788.69	16,051,561.80
March 2034	26,854,370.53	22,985,357.73	15,805,757.39
April 2034	26,442,384.62	22,622,082.06	15,563,271.44
May 2034	26,035,965.29	22,263,893.67	15,324,061.88
June 2034	25,635,041.93	21,910,725.45	15,088,087.11
July 2034	25,239,544.75	21,562,511.15	14,855,306.08
August 2034	24,849,404.84	21,219,185.35	14,625,678.22
September 2034	24,464,554.13	20,880,683.47	14,399,163.47
October 2034	24,084,925.37	20,546,941.75	14,175,722.24
November 2034	23,710,452.15	20,217,897.26	13,955,315.46
December 2034	23,341,068.88	19,893,487.86	13,737,904.50
January 2035	22,976,710.74	19,573,652.20	13,523,451.23
February 2035	22,617,313.75	19,258,329.72	13,311,917.99
March 2035	22,262,814.68	18,947,460.64	13,103,267.55
April 2035	21,913,151.10	18,640,985.94	12,897,463.18
May 2035	21,568,261.33	18,338,847.35	12,694,468.57
June 2035	21,228,084.45	18,040,987.35	12,494,247.86
July 2035	20,892,560.30	17,747,349.16	12,296,765.65
August 2035	20,561,629.45	17,457,876.72	12,101,986.95

Distribution Date	Classes FJ and JA (in the aggregate)	Classes FK and KE (in the aggregate)	Classes UE and UF (in the aggregate)
September 2035	\$ 20,235,233.19	\$ 17,172,514.68	\$ 11,909,877.22
October 2035	19,913,313.55	16,891,208.42	11,720,402.32
November 2035	19,595,813.27	16,613,904.01	11,533,528.57
December 2035	19,282,675.78	16,340,548.20	11,349,222.66
January 2036	18,973,845.23	16,071,088.44	11,167,451.72
February 2036	18,669,266.44	15,805,472.84	10,988,183.27
March 2036	18,368,884.91	15,543,650.18	10,811,385.24
April 2036	18,072,646.81	15,285,569.91	10,637,025.94
May 2036	17,780,498.99	15,031,182.11	10,465,074.09
June 2036	17,492,388.93	14,780,437.51	10,295,498.78
July 2036	17,208,264.78	14,533,287.47	10,128,269.49
August 2036	16,928,075.31	14,289,683.97	9,963,356.07
September 2036	16,651,769.94	14,049,579.62	9,800,728.74
October 2036	16,379,298.70	13,812,927.63	9,640,358.10
November 2036	16,110,612.25	13,579,681.82	9,482,215.10
December 2036	15,845,661.84	13,349,796.58	9,326,271.06
January 2037	15,584,399.34	13,123,226.92	9,172,497.64
February 2037	15,326,777.21	12,899,928.40	9,020,866.86
March 2037	15,072,748.49	12,679,857.17	8,871,351.09
April 2037	14,822,266.81	12,462,969.94	8,723,923.02
May 2037	14,575,286.36	12,249,223.98	8,578,555.71
June 2037	14,331,761.92	12,038,577.10	8,435,222.52
July 2037	14,091,648.82	11,830,987.67	8,293,897.17
August 2037	13,854,902.91	11,626,414.58	8,154,553.69
September 2037	13,621,480.65	11,424,817.26	8,017,166.42
October 2037	13,391,338.98	11,226,155.66	7,881,710.04
November 2037	13,164,435.40	11,030,390.25	7,748,159.54
December 2037	12,940,727.94	10,837,482.01	7,616,490.20
January 2038	12,720,175.15	10,647,392.43	7,486,677.63
February 2038	12,502,736.09	10,460,083.47	7,358,697.72
March 2038	12,288,370.31	10,275,517.61	7,232,526.69
April 2038	12,077,037.89	10,093,657.81	7,108,141.03
May 2038	11,868,699.40	9,914,467.51	6,985,517.53
June 2038	11,663,315.89	9,737,910.60	6,864,633.26
July 2038	11,460,848.89	9,563,951.47	6,745,465.60
August 2038	11,261,260.42	9,392,554.95	6,627,992.17
September 2038	11,064,512.97	9,223,686.34	6,512,190.90
October 2038	10,870,569.50	9,057,311.37	6,398,040.00
November 2038	10,679,393.42	8,893,396.22	6,285,517.92
December 2038	10,490,948.60	8,731,907.53	6,174,603.40
January 2039	10,305,199.36	8,572,812.34	6,065,275.44
February 2039	10,122,110.46	8,416,078.15	5,957,513.30
March 2039	9,941,647.12	8,261,672.84	5,851,296.50
April 2039	9,763,774.96	8,109,564.76	5,746,604.82
May 2039	9,588,460.05	7,959,722.62	5,643,418.28
June 2039	9,415,668.89	7,812,115.57	5,541,717.16
July 2039	9,245,368.38	7,666,713.14	5,441,481.99
August 2039	9,077,525.83	7,523,485.28	5,342,693.52

Distribution Date	lasses FJ and JA n the aggregate)	asses FK and KE n the aggregate)	asses UE and UF n the aggregate)
September 2039	\$ 8,912,108.98	\$ 7,382,402.30	\$ 5,245,332.76
October 2039	8,749,085.96	7,243,434.93	5,149,380.96
November 2039	8,588,425.29	7,106,554.24	5,054,819.59
December 2039	8,430,095.90	6,971,731.72	4,961,630.35
January 2040	8,274,067.10	6,838,939.21	4,869,795.20
February 2040	8,120,308.59	6,708,148.91	4,779,296.28
March 2040	7,968,790.43	6,579,333.39	4,690,116.00
April 2040	7,819,483.09	6,452,465.58	4,602,236.94
May 2040	7,672,357.36	6,327,518.76	4,515,641.94
June 2040	7,527,384.45	6,204,466.55	4,430,314.04
July 2040	7,384,535.89	6,083,282.94	4,346,236.49
August 2040	7,243,783.59	5,963,942.24	4,263,392.75
September 2040	7,105,099.80	5,846,419.09	4,181,766.49
October 2040	6,968,457.13	5,730,688.47	4,101,341.59
November 2040	6,833,828.52	5,616,725.69	4,022,102.11
December 2040	6,701,187.25	5,504,506.38	3,944,032.35
January 2041	6,570,506.95	5,394,006.49	3,867,116.77
February 2041	6,441,761.57	5,285,202.28	3,791,340.04
March 2041	6,314,925.39	5,178,070.33	3,716,687.03
April 2041	6,189,973.01	5,072,587.50	3,643,142.78
May 2041	6,066,879.36	4,968,731.00	3,570,692.54
June 2041	5,945,619.68	4,866,478.30	3,499,321.73
July 2041	5,826,169.52	4,765,807.18	3,429,015.96
August 2041	5,708,504.74	4,666,695.70	3,359,761.03
September 2041	5,592,601.49	4,569,122.23	3,291,542.90
October 2041	5,478,436.25	4,473,065.40	3,224,347.73
November 2041	5,365,985.76	4,378,504.14	3,158,161.82
December 2041	5,255,227.10	4,285,417.64	3,092,971.68
January 2042	5,146,137.59	4,193,785.39	3,028,763.97
February 2042	5,038,694.88	4,103,587.11	2,965,525.53
March 2042	4,932,876.86	4,014,802.82	2,903,243.35
April 2042	4,828,661.74	3,927,412.79	2,841,904.59
May 2042	4,726,027.97	3,841,397.54	2,781,496.59
June 2042	4,624,954.30	3,756,737.88	2,722,006.83
July 2042	4,525,419.74	3,673,414.84	2,663,422.95
August 2042	4,427,403.56	3,591,409.70	2,605,732.76
September 2042	4,330,885.29	3,510,704.01	2,548,924.21
October 2042	4,235,844.73	3,431,279.55	2,492,985.41
November 2042	4,142,261.94	3,353,118.35	2,437,904.61
December 2042	4,050,117.22	3,276,202.65	2,383,670.23
January 2043	3,959,391.12	3,200,514.95	2,330,270.82
February 2043	3,870,064.44	3,126,037.98	2,277,695.09
March 2043	3,782,118.24	3,052,754.69	2,225,931.87
April 2043	3,695,533.79	2,980,648.26	2,174,970.15
May 2043	3,610,292.62	2,909,702.09	2,124,799.05
June 2043	3,526,376.50	2,839,899.81	2,075,407.85
July 2043	3,443,767.41	2,771,225.25	2,026,785.93
August 2043	3,362,447.57	2,703,662.46	1,978,922.84

Distribution Date	Classes FJ and JA (in the aggregate)	Classes FK and KE (in the aggregate)	Classes UE and UF (in the aggregate)
September 2043	\$ 3,282,399.42	\$ 2,637,195.71	\$ 1,931,808.25
October 2043	3,203,605.65	2,571,809.47	1,885,431.95
November 2043	3,126,049.14	2,507,488.43	1,839,783.88
December 2043	3,049,713.00	2,444,217.45	1,794,854.09
January 2044	2,974,580.56	2,381,981.64	1,750,632.77
February 2044	2,900,635.35	2,320,766.26	1,707,110.23
March 2044	2,827,861.13	2,260,556.80	1,664,276.90
April 2044	2,756,241.84	2,201,338.92	1,622,123.35
May 2044	2,685,761.66	2,143,098.49	1,580,640.25
June 2044	2,616,404.94	2,085,821.56	1,539,818.39
July 2044	2,548,156.24	2,029,494.36	1,499,648.69
August 2044	2,481,000.34	1,974,103.32	1,460,122.19
September 2044	2,414,922.18	1,919,635.03	1,421,230.03
October 2044	2,349,906.92	1,866,076.27	1,382,963.46
November 2044	2,285,939.90	1,813,414.00	1,345,313.86
December 2044	2,223,006.63		1,308,272.71
January 2045	2,161,092.85		1,271,831.61
February 2045	2,100,184.44	1,660,678.28	1,235,982.24
March 2045	2,040,267.49	1,611,474.98	1,200,716.43
April 2045	1,981,328.24		1,166,026.07
May 2045	1,923,353.14	1,515,557.85	1,131,903.19
June 2045	1,866,328.80		1,098,339.90
July 2045	1,810,241.99		1,065,328.42
August 2045	1,755,079.66		1,032,861.08
September 2045	1,700,828.95		1,000,930.29
October 2045	1,647,477.12		969,528.57
November 2045	1,595,011.64		938,648.53
December 2045	1,543,420.12		908,282.88
January 2046	1,492,690.32		878,424.43
February 2046	1,442,810.18		849,066.06
March 2046	1,393,767.78		820,200.77
April 2046	1,345,551.37		791,821.64
May 2046	1,298,149.33	1,004,921.25	763,921.83
June 2046	1,251,550.21	967,032.81	736,494.60
July 2046	1,205,742.70	929,813.75	709,533.30
August 2046	1,160,715.64	· · · · · · · · · · · · · · · · · · ·	683,031.36
September 2046	1,116,458.02		656,982.28
October 2046	1,072,958.95		631,379.68
November 2046	1,030,207.70		606,217.22
December 2046	988,193.69		581,488.69
January 2047	946,906.46		557,187.93
February 2047	906,335.69		533,308.85
March 2047	866,471.19		509,845.47
April 2047	827,302.90		486,791.88
May 2047	788,820.92		464,142.22
June 2047	751,015.45		441,890.74
July 2047	713,876.82		420,031.75
August 2047	677,395.50	502,588.38	398,559.64

Distribution Date	sses FJ and JA the aggregate)	sses FK and KE the aggregate)	ses UE and UF the aggregate)
September 2047	\$ 641,562.08	\$ 473,767.80	\$ 377,468.87
October 2047	606,367.26	445,482.50	356,753.96
November 2047	571,801.87	417,724.48	336,409.53
December 2047	537,856.87	390,485.85	316,430.24
January 2048	504,523.33	363,758.83	296,810.84
February 2048	471,792.44	337,535.74	277,546.15
March 2048	439,655.49	311,809.00	258,631.05
April 2048	408,103.91	286,571.16	240,060.47
May 2048	377,129.23	261,814.85	221,829.45
June 2048	346,723.09	237,532.79	203,933.05
July 2048	316,877.23	213,717.84	186,366.43
August 2048	287,583.53	190,362.91	169,124.80
September 2048	258,833.93	167,461.04	152,203.41
October 2048	230,620.53	145,005.36	135,597.62
November 2048	202,935.50	122,989.09	119,302.81
December 2048	175,771.11	101,405.53	103,314.44
January 2049	149,119.75	80,248.10	87,628.03
February 2049	122,973.91	59,510.29	72,239.16
March 2049	97,326.16	39,185.68	57,143.45
April 2049	72,169.20	19,267.96	42,336.61
May 2049	47,495.78	0.00	27,814.38
June 2049	23,298.80	0.00	13,572.56
July 2049 and thereafter	0.00	0.00	0.00

Assumed Characteristics of the Mortgage Loans Underlying the Group 10 Trust Assets(1)

Initial Certificate Rate at MBS Issuance(14)	2.000%	2.500	2.500	2.000	2.500	2:000	2.000	2.500	2:000	2:000	2.500	2.000	3.500	3.500	2.500	2.500	3.000	2.000	1.500	2.000	5.000 2.500	2.000	3.500	2.000	2.000	3.000	2.000	3.500	2.500	2.500	2,000	1.500	2.000	5.000 1.500	1.500	2.000	2.500	2.500	2.500	2.000	0.500
Final Maturity Date	February 20, 2043 March 20, 2042	April 20, 2042	June 20, 2042 July 20, 2042	September 20, 2042	September 20, 2042	November 20, 2042 November 20, 2042	January 20, 2043	January 20, 2043	May 20, 2043	July 20, 2043	August 20, 2043	August 20, 2043	December 20, 2043	December 20, 2043	April 20, 2044	May 20, 2044	June 20, 2044 July 20, 2044	August 20, 2044	September 20, 2044 October 20, 2044	October 20, 2044	December 20, 2044 March 20, 2046	March 20, 2046	April 20, 2045 April 20, 2045	May 20, 2045	August 20, 2045 Sentember 20, 2045	October 20, 2045	October 20, 2045 October 20, 2045	November 20, 2045	January 20, 2046	January 20, 2047	April 20, 2046	June 20, 2046	June 20, 2046	June 20, 2046 July 20, 2046	August 20, 2046	November 20, 2046 January 20, 2047	July 20, 2047	September 20, 2047 April 20, 2048	August 20, 2047	October 20, 204/ May 20, 2047	August 20, 2026
Lifetime Certificate Interest Rate Floor(13)	1.500%	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500		1.500	1.500	1.500	1500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1,500	1.500	1.500	1.500	1.500	1.500
Lifetime Certificate Interest Rate Cap(12)	7.000%	7.500	7.000	7.000	7.500	7.000	7.000	7.500	7.000	7.000	8.500	7.000	9.500	9.500	7.500	7.500	8:000	7.000	0.500	7.000	2.500	7.000	8.500	7.000	7.000	8.000	0.500	8.500	8.500	8.500	7:000	6.500	7.000	6.500	6.500	2,000	7.500	7.500	8.500	7.000	11.500
Periodic Certificate Interest Rate Limit(11)	1.000%	1.000	000.1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	2.000	1.000	2.000	2.000	1.000	1.000	1.000	1.000	1.000	1.000	0001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	2:000	2.000	1.000	1.000	1.000	1.000	1.000	000.1	1.000	1.000	2.000	1.000	1.000
Mortgage Rate Reset Frequency(10)	Annually Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually Annually	Annually	Annually Annually	Annually	Annually Annually	Annuallý
Next Mortgage Rate Adjustment Date(9)	April 1, 2020 July 1, 2020	July 1, 2020	July 1, 2020 October 1, 2019	October 1, 2019	_	January 1, 2020 January 1, 2020	April 1, 2020	April 1, 2020 April 1, 2020	July 1, 2020	October 1, 2019		October 1, 2019	January 1, 2021	January 1, 2020	July 1, 2020	July 1, 2020	October 1, 2019	October 1, 2019		· ,	January 1, 2020 April 1, 2021	April 1, 2020	July 1, 2020 July 1, 2020	July 1, 2020 July 1, 2020	October 1, 2019	January 1, 2021	January 1, 2020	January 1, 2021	April 1, 2023	April 1, 2024	July 1, 2020	July 1, 2020 July 1, 2020	July 1, 2020	July 1, 2021 October 1, 2019	October 1, 2019	January 1, 2020 April 1, 2020	October 1, 2020	October 1, 2020 July 1, 2021	É,	January 1, 2021 July 1, 2020	October 1, 2019
Issue Date	February 1, 2013 April 1, 2012	April 1, 2012	June 1, 2012 July 1, 2012	September 1, 2012	September 1, 2012	November 1, 2012 November 1, 2012	January 1, 2013	January 1, 2013	May 1, 2013	July 1, 2013	August 1, 2013	August 1, 2013	December 1, 2013	December 1, 2013	April 1, 2014	May 1, 2014	Julie 1, 2014 July 1, 2014	August 1, 2014	September 1, 2014 October 1, 2014	October 1, 2014	December 1, 2014 March 1, 2016	March 1, 2016	April 1, 2015 April 1, 2015	May 1, 2015	August 1, 2015 September 1, 2015	October 1, 2015	October 1, 2015 October 1, 2015	November 1, 2015	January 1, 2016	January 1, 2017	April 1, 2016	June 1, 2016	June 1, 2016	June 1, 2016 July 1, 2016	August 1, 2016	November 1, 2016 January 1, 2017	July 1, 2017	September 1, 2017 April 1, 2018	August 1, 2017	October 1, 2017 May 1, 2017	August 1, 1996
Certificate Margin(8)	1.500%	1.500	1500	1.500	1.500			1.500		1.500		1.500		1.500		1.500			1.500		1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Index	1-Year CMT 1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year OMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year LIBOR	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT 1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT
Approximate Weighted Wersage Servicing and Guaranty Fee Rate(7)	0.326%	0.468	0.326	0.471	0.368	0.468	0.318	0.333	0.305	0.351	0.500	0.489	0.250	0.750	0.403	0.414	0.355	0.493	0.18	0.270	0.386	0.264	0.366	0.340	0.285	0.409	0.252	0.279	0.375	0.250	0.276	0.312	0.264	0.361	0.280	0.269	0.335	0.362	0.250	0.358	1.145
Current Certificate Rate(6)	4.000%	3.875	5.8/5 5.750	3.750	3.750	4.125	4.000	4.000	3.875	3.000	2.500	3.750	3.500	4.625	3.500	3.500	3.000	3.750	3.500	4.000	5.000 2.500	3.000	3.500	3.875	3.000	3.000	3.000	3.500	2.500	2.500	3.000	2.500	3.000	1.500	1.500	2.000	2.500	2.500 2.000	2.500	2.500	3.750
Approximate Weighted Average Current Mortgage Rate(5)	4.326% 4.625	4.343	4.32/	4.221	4.118	4.593	4.318	4.333 4.478	4.180	3.351	3.000	4.239	3.750	5.375	3.903	3.914	3.355	4.243	3,688	4.270	3.380 2.900	3.264	3.866	4.215	3.285	3.409	3.752	3.779	2.875	2.750	3.276	2.812	3.264	2.482 1.861	1.780	2.269	2.835	2.862 2.468	2.750	2.358	4.895
Approximate Weighted Average Ioan Age (in months)(4)	08 08 08	88	× ×	3.5	% S	2 S	88	<u>2</u> 2	92	2,7	73	52	7 69	0,7	99	64	63	61	2 69	20	8 4	54.	¥ \$	52	49 88	8	7 . 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	9.	4 8	32	41	39 F	88	£ %	37	2 24	56	25 17	26	8,72	278
Approximate Weighted Average Remaining Term to Maturity (in months)(3)	280 270	569	274	273	274	272	280	672 E E	284	% %	287	284	291	290 304	294	362	262	530	30.00	301	302	317	306	308	310	312	313	314	316	328	318	320	320	320 322	323	328	334	333 343	334	337/	82
Ginnie Mae Certificate Principal Balance(2)	365,611.00 239,390.84	163,418.66	214,440.39	204,303.30	178,612.60	381,284.65	523,586.18	184,945.76	353,430.46	202,627.76	139,536.71	183,234.96	223,654.07	261,016.99	74,001.21	342,899.36	87,457.74	34,542.08	313,489,38	58,656.24	346.030.94	1,412,883.75	148,530.90	843,881.90	914,260.65	131,569.48	37,381.50 69 528 92	400,685.83	135,225.72	418,989.73	144,400.77	1,249,344.16	92,007.00	227.060.19	515,924.20	581,416.41 210.702.81	67,123.35	452,443.46 558,584.12	324,139.89	956,275.01	1,029.22
Pool Number	MA0796 \$ MA0040	MA0046	MA0232	MA0414	MA0405	MA0554	MA0711	MA0712 MA0719	MA1025	MA1167	MA1239	MA1242	MA1566	MA1562	MA1851	MA1932	MA2087	MA2170	MA2323 MA2323	MA2324	MA2458 MA3531	MA3545	MA2770 MA2777	MA2849	MA3057	MA3185	MA3194 MA3195	MA3258	MA3395	MA4407	MA3623	MA3758	MA3760	MA3825	MA3896	MA4091 MA4216	MA4609	MA4741 MA5154	BB7379	BD4153 AY3122	8949

Initial Certificate Rate at MBS Issuance(14)	6.500%	0000	5.000	6.500	4.500	5.500	0009	6.500	8:000	5.500	3.500	4.000	3.500	5.000 4.500	3.000	4.500	6.000	5.500 6.000	6.000	5.500	6.000	5.500	5.500	6.000	5.500	6.500	5.500	7.000	6.000 5.500	5.500	5.500	4.500 4.000	5.500	4.000	5.500 4.500	4.000	3.500	3.000 4.000	3.000	4.000	4.500	5.000 4.000 4.750
	September 20, 2026 May 20, 2022	June 20, 2022	rebruary 20, 2025 May 20, 2023	May 20, 2023	August 20, 2023	December 20, 2023 February 20, 2024	June 20, 2024	October 20, 2024	January 20, 2021	November 20, 2025 October 20, 2021	December 20, 2033	December 20, 2033	February 20, 2034	February 20, 2054 March 20, 2034	April 20, 2034	April 20, 2034 April 20, 2034	January 20, 2027	December 20, 2026 December 20, 2026	May 20, 2027	September 20, 202/ December 20, 2027	December 20, 2027	January 20, 2029	October 20, 2028 Eabrager 20, 2020	August 20, 2029	October 20, 2029	October 20, 2029	January 20, 2030 February 20, 2030	May 20, 2030	June 20, 2030 April 20, 2030	July 20, 2030	April 20, 2031	November 20, 2051 February 20, 2032	February 20, 2032	September 20, 2032	September 20, 2052 June 20, 2032	July 20, 2032	August 20, 2033	September 20, 2033 September 20, 2033	May 20, 2034 May 20, 2034	June 20, 2034	June 20, 2034	October 20, 2034 October 20, 2034 November 20, 2034
Lifetime Certificate Interest Rate Floor(13)	1.500%			1.500		1.500		3,000	3.000	1.500	1.500	1.500	1.500	1.500 2.000	1.500	1.500	1.500	1.500			1.500	1.500	1.500		1.500	1.500	1.500		1.500	1.500	1.500	1.500	1.500	1.500		1.500			1.500			2.000 1.500
	11.500%	11.000	10.000	11.500	9.500	10.500	11.000	11.500	13.000	10.500	8.500	9.000	8.500	9.500	8.000	9.500	11.000	10.500	11.000	10.500	11.000	10.500	0.500	11.000	10.500	11.500	10.500	12.000	10.500	10.500	10.500	9.500	10.500	000.6	9.500	0000	8.500	8.000 9.000	8.000	9.000	9.500	9.000 9.750
Periodic Certificate Interest Rate Limit(11)	1.000%	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Mortgage Rate Reset Frequency(10)	Annually	Annually	Annually Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually Annually	Annually	Annually Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually Annually	Annually	Annually	Annually Annually	Annually	Annually	Annually Annually	Annually	Annually	Annually Annually	Annually	Annually	Annually	Annually Annually Annually
Next Mortgage Rate Adjustment Date(9)	October 1, 2019 July 1, 2020	July 1, 2020	April 1, 2020 July 1, 2020	July 1, 2020 Tuly 1, 2020	October 1, 2019	January 1, 2020 April 1, 2020	July 1, 2020	January 1, 2020	. — ï	January 1, 2020 January 1, 2020	January 1, 2020	January 1, 2020 April 1, 2020	April 1, 2020	April 1, 2020 April 1, 2020	July 1, 2020	July 1, 2020 July 1, 2020	April 1, 2020	January 1, 2020 January 1, 2020	July 1, 2020	January 1, 2020	January 1, 2020	April 1, 2020 April 1, 2020	January 1, 2020	October 1, 2019	January 1, 2020	January 1, 2020 January 1, 2020	April 1, 2020 April 1, 2020	July 1, 2020	July 1, 2020 July 1, 2020	October 1, 2019	July 1, 2020	January 1, 2020 April 1, 2020	April 1, 2020	October 1, 2019	October 1, 2019 July 1, 2020	October 1, 2019	October 1, 2019	October 1, 2019 October 1, 2019	July 1, 2020 Tuly 1, 2020	July 1, 2020 July 1, 2020 July 1, 2020	July 1, 2020	January 1, 2020 January 1, 2020 January 1, 2020
Issue Date	September 1, 1996 May 1, 1992	June 1, 1992	February 1, 1995 May 1, 1993	May 1, 1993 June 1 1993	August 1, 1993	December 1, 1993 February 1, 1994	June 1, 1994	October 1, 1994	January 1, 1991	November 1, 1995 October 1, 1991	December 1, 2003	December 1, 2003	February 1, 2004	February 1, 2004 March 1, 2004	April 1, 2004	April 1, 2004 April 1, 2004	January 1, 1997	December 1, 1996 December 1, 1996	May 1, 1997	September 1, 1997 December 1, 1997	December 1, 1997	January 1, 1999	October 1, 1998 Eabruary 1, 1999	August 1, 1999	October 1, 1999	October 1, 1999	January 1, 2000 February 1, 2000	May 1, 2000	June 1, 2000 April 1, 2000	July 1, 2000 December 1, 2000	April 1, 2001	November 1, 2001 February 1, 2002	February 1, 2002	September 1, 2002	September 1, 2002 June 1, 2002	July 1, 2002	August 1, 2003	September 1, 2003 September 1, 2003	May 1, 2004 May 1, 2004	June 1, 2004	June 1, 2004	October 1, 2004 October 1, 2004 November 1, 2004
Certificate Margin(8)	1.500%			1.500		1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500 2.000	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	2.000	1.500	1.500	2.000	1.500	2.000 1.500
Index	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year OMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year OMT	1-Year OMT	1-Year OMT	1-Year CMT	I-Year CMT 1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT 1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year OMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMI 1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMI 1-Year CMI	1-Year CMT	1-Year CMT	1-Year CMT 1-Year CMT	1-Year CMT	1-Year CMT	1-Year OMT	1-Year CMT 1-Year CMT 1-Year CMT
Approximate Weighted Average Servicing and Guaranty Fee Rate(7)	1.046%	0.528	0.510	0.709	0.527	0.546	0.546	0.581	0.585	1.162	0.673	0.665	0.665	0.750	9790	0.729	1.191	1.122	1.219	1.19	1.172	1.250	1.250	1.222	1.232	1.162	1.259	1.19	1.256	1.007	1.097	0.808	1.228	0.926	0.937	1.087	0.735	0.692 0.690	0.697	0.000	0.658	0.250 0.250 0.667
e Current Certificate (Rate(6)	3.750%	3.875	3.875	3.875	3.750	4.125	3.875	4.125	4.000	4.125	4.125	4.125	4.000	4.500	3.875	3.875	4.000	4.125	3.875	4.125	4.125	4.000	4.125	3.750	4.125	4.125	4.000	3.875	5.875 5.875	3.750	3.875	4.000	4.000	3.750	3.750 3.875	3.750	4.250	3.750 3.750	3.875	4.375	3.875	4.625 4.625 4.125
Approximat Weighted Average Current Mortgage Rate(5)	4.796%	4.403	4.385	4.584	4.277	4.671	4.421	4.706	4.585	5.287	4.798	4.790	4.665	4.750	4.549	4.540	5.191	5.24/	5.094	5.324	5.297	5.250	5.375	4.972	5.357	5.287	5.259	5.065	5.131	4.757	4.972	5.095	5.228	4.676	5.000 4.812	4.837	4.985	4.442 4.440	4.572	4.375	4.533	4.875 4.792
Approximate Weighted Average Loan Age (in months)(4)	277	328	320 317	318 316	314	311	304	300	345	336	190	0 8	187	1888	185	186	273	274 274	268	262 262	262	248	252	241	240	240	237	233	234 234	231	221	214 211	212	205	208 208	207	194	193 193	184 28.	183	183	179 179
Approximate Weighted Average Remaining Term to Maurity (in months)(3)	83	35	3 \$	42	1.94	9 22	1%	8%	15	2,73	170	0,170	173	172	175	2/1	82	88	92	8.2	8 5	112	108	119	120	120	123 124	127	158	129	139	140 149	148	155	154 152	153	166	167 167	176	12	253	181 180 181
Ginnie Mae Certificate Principal Balance(2)	\$ 603.26	1,050.45	2,395.46	6,803.44	659.14	960.61	2,963.78	4,438.62	284.03	55.93	60,695.70	23,584.68	22,768.12	51,441.35 11,010.94	11,936.88	43,687.12	2,747.93	5,241.22	2,624.39	1,822.37	1,695.14	11,380.70	7,739.81	11,030.18	3,774.13	41,100.31	26,305.43	28,514.30	2,739.42 6,165.12	49,273.64	17,498.91	356.54	45,576.80	23,415.50	4,483.42	17,418.20	41,624.99	8,169.40 27,697.80	60,692.51	7,093.07	31,237.59	21,142.49 89,313.15 9,246.89
Pool Number	8971 8972	9668	8140 8191	8202	8258					8744								80,021 80,022					80231				80363			80424	80507	80577	80580	80635	80638 80610	80614	80728	80734 80738	80900	80959	80953	81110 81110 81153

Initial Certificate Rate at MBS Issuance(14)	5.000%	4.250	5.500	5.000	3.250	3.500	3.500	3.000	4.000	4.750	4.000	4.500	4.000	3.750	3.000	3.500	4.000	3.500	3.000	3.500	3.500	3000	3.500	2.500	3.500	3.500	2.500	3.500	3.300	2500	3.500	2.500	3.500	2.500	2.500	3.000	3.500
Final Maturity Date E	October 20, 2034	March 20, 2034	May 20, 2035	July 20, 2035	July 20, 2040	July 20, 2040 Anonst 20, 2040	August 20, 2040	September 20, 2040	September 20, 2040	January 20, 2057	May 20, 2039	October 20, 2039	October 20, 2039	November 20, 2039	January 20, 2040	January 20, 2040	March 20, 2040	February 20, 2040	March 20, 2040	May 20, 2040	April 20, 2040	Tannary 20, 2040	January 20, 2041	February 20, 2041	April 20, 2041	March 20, 2041	May 20, 2041	May 20, 2041	August 20, 2041	August 20, 2041	September 20, 2041	October 20, 2041	October 20, 2041	November 20, 2041	December 20, 2041	December 20, 2041	February 20, 2042
Lifetime Certificate Interest Rate Floor(13)	1.500%	1500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500				1.500											1.500	1.500	1.500	1.300	1.500	1500	1.500	1.500	1.500	1.500	1.500	1.500
Lifetime Certificate Interest Rate Cap(12)	10.000%	9.230	10.500	10.000	8.250	8.500	8.500	8.000	9.000	9.750	0000	9.500	9.000	8.750	8.000	8 500	0006	8.500	8.000	8.500	8.500	8,000	8.500	7.500	8.500	9.500	7.500	8.500	0.300	7.500	8 500	7.500	8.500	7.500	7.500	8.000	8.500
Periodic Certificate Interest Rate Limit(11)	1.000%	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	2.000	1.000	1.000	2,000	2.000	1 000	1,000	1.000	1.000	1.000	1.000	1.000
Mortgage Rate Reset Frequency(10)	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Approally	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually
Next Mortgage Rate Adjustment Date(9)	January 1, 2020	January 1, 2020 April 1 2020	Tuly 1, 2020	October 1, 2019	October 1, 2019	October 1, 2019 October 1, 2019	October 1, 2019	October 1, 2019	October 1, 2019	April 1, 2020 October 1, 2010	Tuly 1, 2020	January 1, 2020	January 1, 2020	January 1, 2020	April 1, 2020	April 1, 2020	April 1, 2020	April 1, 2020	April 1, 2020	July 1, 2020	July 1, 2020 July 1, 2020	April 1 2020	April 1, 2020	April 1, 2020	July 1, 2020	April 1, 2020	July 1, 2020	July 1, 2020 October 1, 2010	October 1, 2019	October 1, 2019	October 1, 2019	January 1, 2020	January 1, 2020	January 1, 2020	January 1, 2020	January 1, 2020	April 1, 2020
Issue Date	October 1, 2004	December 1, 2004 March 1, 2005	May 1, 2005	July 1, 2005	July 1, 2010	July 1, 2010 Angust 1, 2010	August 1, 2010	September 1, 2010	September 1, 2010	January 1, 2007	May 1, 2009	October 1, 2009	October 1, 2009	November 1, 2009	January 1, 2010	January 1, 2010	March 1, 2010	February 1, 2010	March 1, 2010	May 1, 2010	April 1, 2010	Tannary 1 2011	January 1, 2011	February 1, 2011	April 1, 2011	March 1, 2011	May 1, 2011	May 1, 2011	August 1, 2011	September 1 2011	September 1, 2011	October 1, 2011	October 1, 2011	November 1, 2011	December 1, 2011	December 1, 2011	February 1, 2012
Certificate Margin(8)	1.500%	1500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Index	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMI	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Vear CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMI	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMI	1 Voor CMT	1-rear CMI	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year CMT	1-Year OMT	1-Year CMT
Approximate Weighted Average Servicing and Guaranty Fee Rate(7)	0.750%	0.500	0.750	0.642	0.294	0.420	0.514	0.486	0.593	0.500	0.386	0.549	0.060	0.301	0.461	0.250	0.666	0.552	0.492	0.529	0.002	0.487	0.519	0.476	0.393	0.750	0.446	0.477	0/2/0	0.4/8	0.631	0.482	0.429	0.461	0.468	0.453	0.501
Current Certificate Rate(6)	4.125%	5.123 4.000	3,875	3.750	3.750	3.750	3.750	3.750	3.750	4.000	3.875	4.125	4.125	4.125	4.000	4.000	4.000	4.000	4.000	3.875	5.8/2 5.02 5.03	4 000	4.000	4.000	3.875	4.000	3.875	5.875	0.700	2.750	3.750	4.125	4.125	4.125	4.125	4.125	4.000
Approximate Weighted Average Current Mortgage Rate(5)	4.875%	5.025 4 626	4.625	4.392	4.044	4.170	4.264	4.236	4.343	4.500	4.261	4.674	4.785	4.426	4.461	4.320	4.666	4.552	4.492	4.404	4.4//	4.310	4.519	4.476	4.268	4.750	4.321	4.352	4.320	4.4/8	4 381	4.607	4.554	4.586	4.593	4.578	4.501
Approximate Weighted Average Ioan Age (in months)(4)	180	175	174	171	=======================================	111	109	108	109	152	124	120	120	118	116	117	115	116	114	112	114	105	105	103	101	102	100	<u>10</u> 5	6 8	88	2.5	. 26	%	94	93	24.8	76
Approximate Weighted Average Remaining Term to Maturity (in months)(3)	180	185 784	186	189	249	249	251	251	251	208	236	240	240	242	241	243	245	244	244	248	240	255	255	256	259	258	259	259	263	202	592	264	264	264	200	500	208
Ginnie Mae Certificate Principal Balance(2)	\$ 14,163.48	27,820.2/ 86,203,40	70,040.45	67,240.20	348,241.53	55,667.97	384,367.07	119,859.27	119,091.26	179,095.12	71.803.26	30,011.38	58,380.33	132,979.62	19,504.63	70.202.02	65.779.38	258,854.13	174,855.12	257,972.47	105,042.85	141 337 55	406,959.12	57,592.42	185,090.78	71,981.36	107,514.25	25,118.14	1/4,013.04	40,811.55	184 009 10	36,990.63	269,000.98	98,371.06	215,868.71	88,813.63	284,986.52
Pool Number	81127	81282	81358	81420	82578	82579	82600	82614	82627	81851	82328	82405	82410	82422	82457	6776	82499	82478	82488	82532	82513	82712	82713	82734	82794	82773	82824	7882/	02503	82911	82931	82958	82964	82977	82997	82999	83040

(1) The information in this Exhibit A is provided by the Sponsor as of September 1, 2019. It is based on information regarding the Group 10 Trust Assets and the related Mortgage Loans. All weighted averages provided in this Exhibit A are weighted based on the outstanding principal amounts of the Mortgage Loans as of September 1, 2019.

The Ginnie Mae Certificate Principal Balance is the sum of the outstanding principal amounts of the Mortgage Loans underlying the The Approximate Weighted Average Remaining Term to Maturity (in months) is the approximate weighted average remaining term to related Trust MBS. 3 3

The Approximate Weighted Average Loan Age (in months) is the approximate weighted average loan age of the Mortgage Loans undermaturity of the Mortgage Loans underlying the related Trust MBS. lying the related Trust MBS. 4

The Approximate Weighted Average Current Mortgage Rate is the approximate weighted average of the interest rates of the Mortgage Loans underlying the related Trust MBS. (y

- (6) The Current Certificate Rate is the current certificate rate of the related Trust MBS.
- The Approximate Weighted Average Servicing and Guaranty Fee Rate is the approximate weighted average monthly fee rate for servicing and for the Ginnie Mae Certificate Guaranty Fee.
 - The Certificate Margin is the margin of the Mortgage Loans underlying the related Trust MBS net of the Servicing and Guaranty Fee Rate.
- The Next Mortgage Rate Adjustment Date is the next date on which the Mortgage Rate of each Mortgage Loan underlying the related Trust MBS resets under the Mortgage Rate formula and the related Mortgage Loan documents. 6
- (10) The Mortgage Rate Reset Frequency is the frequency that the Mortgage Rate of each Mortgage Loan resets under the Mortgage Rate formula and related Mortgage Loan documents applicable to each Mortgage Loan underlying the related Trust MBS after the first Mortgage Rate adjustment date.
- (11) The Periodic Certificate Interest Rate Limit is the maximum periodic interest rate adjustment possible based on the MBS Guide.
- (12) The Lifetime Certificate Interest Rate Cap is the maximum certificate interest rate possible based on the MBS Guide.
- (13) The Lifetime Certificate Interest Rate Floor is the minimum certificate interest rate possible based on the MBS Guide.
- (14) The Initial Certificate Rate at MBS Issuance is the initial certificate rate of the related Trust MBS.

The remaining terms to maturity, loan ages, Mortgage Rates, Mortgage Margins and next Mortgage Rate adjustment dates of many of the Mortgage Loans underlying the Group 10 Trust Assets will differ from the characteristics assumed, perhaps significantly. See "The Trust Assets — The Mortgage Loans" in this Supplement.



\$1,858,961,986

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Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2019-115

OFFERING CIRCULAR SUPPLEMENT September 23, 2019

> Morgan Stanley Great Pacific Securities