



INVESTOR PRESENTATION

# Single-Family Credit Risk Transfer

March 2025



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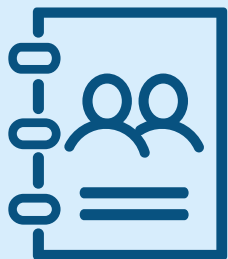


# Single-Family Business and Credit Risk Management



# Our Size and Scale

Fannie Mae is one of the largest Single-Family credit risk managers in the mortgage industry.



**\$3.6T**

Single-Family guaranty  
book of business<sup>1</sup>



**1 in 4**

Single-Family mortgage  
loans owned or guaranteed<sup>2</sup>



**\$326.0B**

Single-Family mortgage  
liquidity provided<sup>3</sup>



**27%**

Single-Family Mortgage-Related  
Securities issuance share<sup>3</sup>

<sup>1</sup> As of December 31, 2024

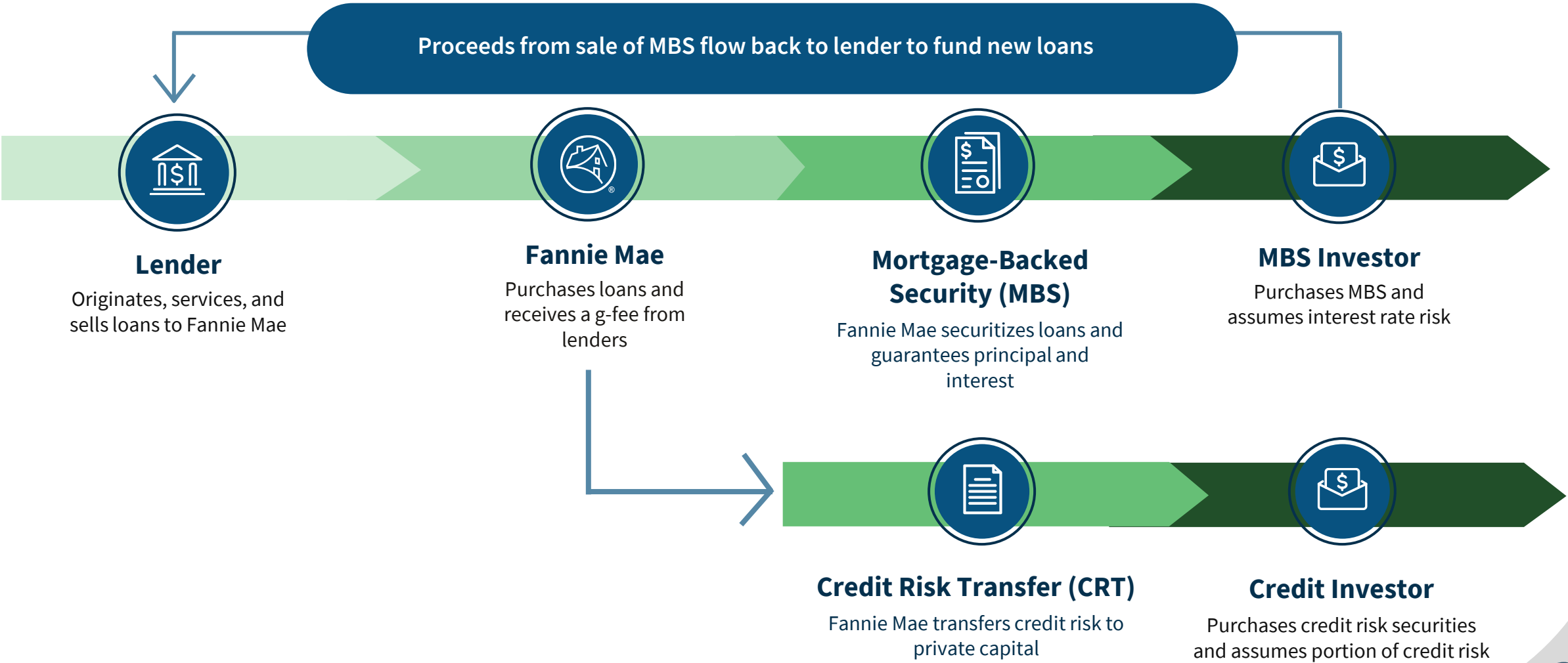
<sup>2</sup> As of December 31, 2024

<sup>3</sup> In 2024



# The Securitization Process

We provide liquidity to the housing market and investment options to fixed-income investors.



# Credit Risk Transfer Overview



## Program benefits:

- Benchmark issuer
- Large, geographically diversified loan pools
- Innovative credit risk management tools
- Program transparency
- Unique online investor tools and resources



We have **transferred over \$100 billion** in single-family credit risk to private market participants since 2013, **transferring a portion of the credit risk on over**

**\$3.3 Trillion**  
of UPB at Issuance\*

## Connecticut Avenue Securities® (CAS)

- **The benchmark for U.S. mortgage credit**
- Over **\$70 billion** issued since program inception\*
- Covering nearly **\$2.3 Trillion in UPB** at issuance\*

## Credit Insurance Risk Transfer™ (CIRT™)

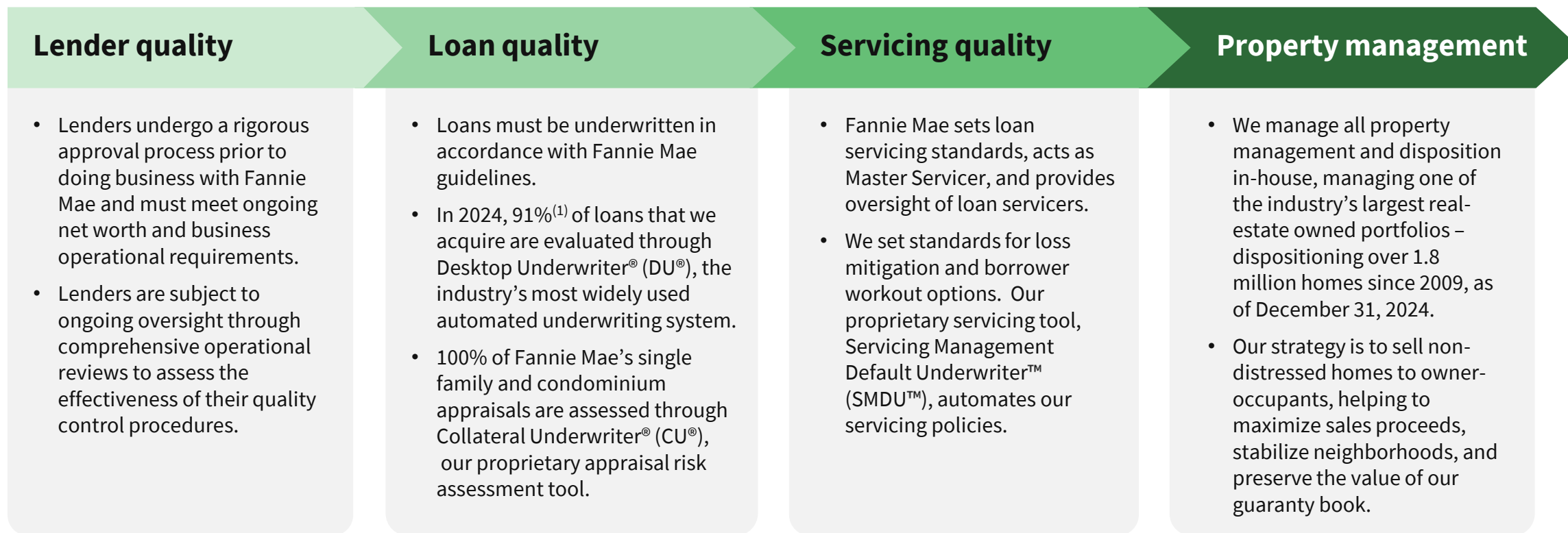
- **Attracts diversified insurers/ reinsurers**
- Over **\$28.1 billion** of coverage committed since program inception\*
- Covering roughly **\$936 billion in UPB** at issuance\*

\* Issuance amount as of December 31, 2024.



# Our Credit Risk Management Approach

Our credit risk management philosophy considers all stages of the loan life cycle and is focused on leveraging data and analytics to support sustainable homeownership.



1. Approximate loan deliveries in 2024 through DU

[Click](#) to learn more about our approach to Credit Risk Management



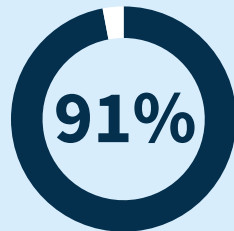
# Credit Risk Management Highlights

Fannie Mae's industry-leading technology drives improved loan quality and better outcomes.

## Desktop Underwriter® (DU®)



**1,750**  
Lenders/Agents<sup>1</sup>



Loan deliveries  
in Q4 2024  
through DU<sup>1</sup>

In Q4 2024, approximately 83% (\$70.5B) of the single-family loans (by UPB) acquired by Fannie Mae had one or more **Day 1 Certainty®** components

## Collateral Underwriter® (CU®)<sup>2</sup>



**68.2 Million+**

Appraisals collected from  
August 2011 to date

**11.3 Million+**

Appraisals viewed by lenders  
since launch in January 2015

**100%** of single-family and condominium appraisals go through CU as part of our QC process

## Servicing Management Default Underwriter™ (SMDU™)



**~99%**

of delinquencies  
covered through  
SMDU as of end  
of Q3 2024

- Approximately **97% of Fannie Mae servicers** currently benefit from SMDU through B2B integration or through the SMDU User Interface
- Provides **consistent decisioning** for loss mitigation solutions

## Real Estate Owned (REO)



**1.8 million+**

Homes disposed of since 2009

- Best execution approach to sell real estate based on NPV comparison to move-in ready home sold to owner occupant
- Evolution within our REO repair strategy has increased repair rates and investment over time, resulting in increased access for owner occupants to purchase move-in-ready homes.

<sup>1</sup> As of December 31, 2024, approximately 1,200 lenders actively deliver loans to Fannie Mae through DU on an annual basis and approximately 650 additional lenders are approved for DU access.

<sup>2</sup> Numbers are through December 31, 2024



# Connecticut Avenue Securities (CAS) Overview



# 2025 CAS Issuance Calendar

- We currently expect total CAS volume of around \$4 billion across 5 - 7 transactions.
- Calendar highlights periods in 2025 during which Fannie Mae may issue Connecticut Avenue Securities.
- Fannie Mae may choose not to issue in some or all periods.
- Issuance volumes and utilization of available issuance windows continue to be dependent on business factors and market conditions.

Month(s)	Potential CAS REMIC® Transactions
January/February	☑
March/April	☑    ○
May/June	○    ○
July/August	○
September/October	○
November/December	

# Fannie Mae's Connecticut Avenue Securities (CAS program)

Since 2013, we've built an award-winning mortgage credit risk transfer program, with:

- The creation of the innovative CAS REMIC
- Industry-leading, data-driven credit risk management methodologies
- Transparent and unique investor resources
- Maturing and liquid market



Large, geographically diverse mortgage credit book, with innovative tools to improve the loan manufacturing process with over

**\$70 billion**

issued under the CAS program since 2013



Transferred a portion of risk on over

**\$2.3 trillion**

in unpaid principal balance of mortgage loans at time of CAS issuance



Transparent credit risk management process with historical research dataset of over

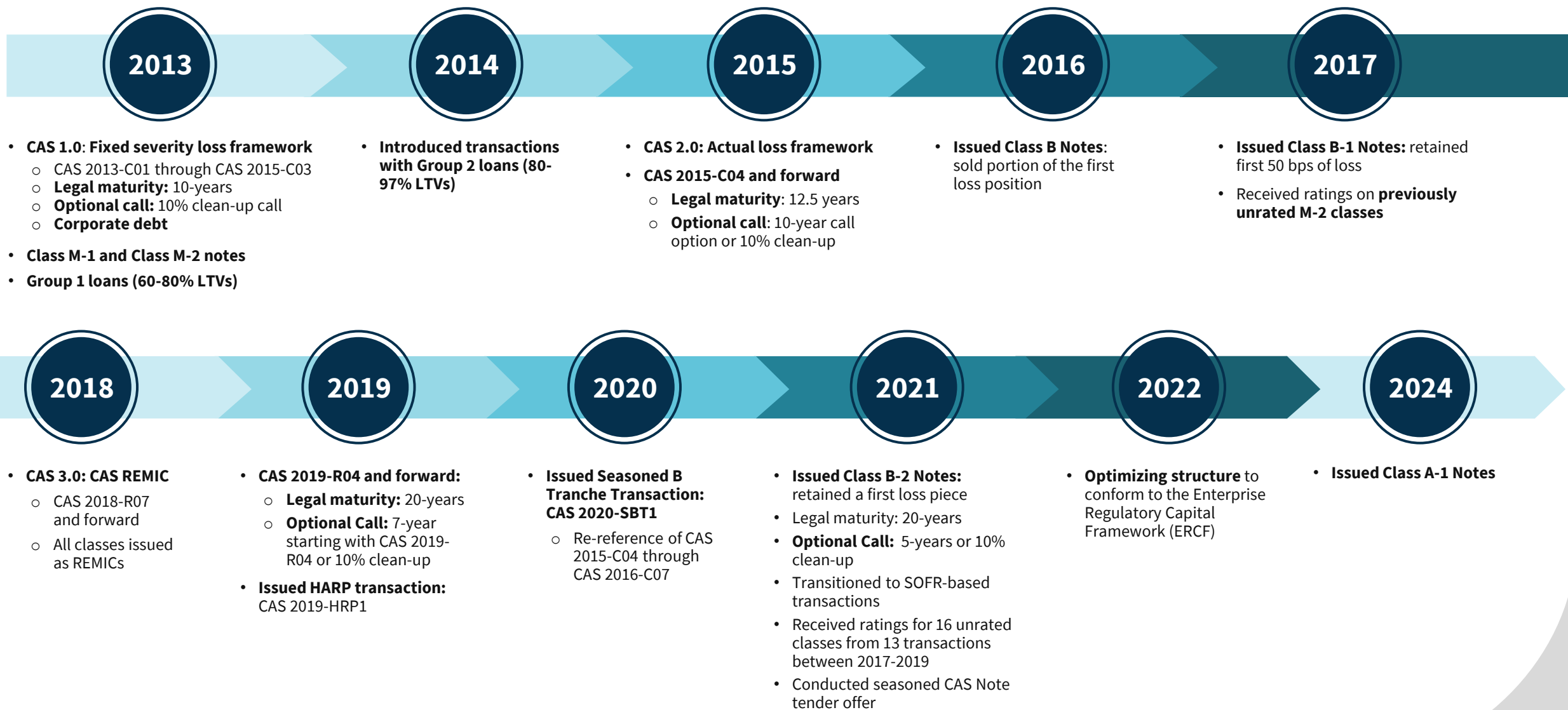
**55 million**

loans

*Issuance amount as of December 31, 2024.*



# CAS Evolution: Transforming the CRT Sector



# CAS Bond Ratings

M-1 Rating Transition Matrix

At Issuance Rating

AA	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	M1	Current Rating*
1		1		4	1	4					AAA	
	1			1	3	4					AA+	
				1	2	6		1			AA	
				4	3	1					AA-	
	1	3	2	8	3	3					A+	
		6	3	3	3	5					A	
			21	6	2	6					A-	
				17	1	5					BBB+	
					6	4					BBB	
						7					BBB-	
											BB+	
											BB	
											BB-	
											B+	
											B	

M-2 Rating Transition Matrix

At Issuance Rating

A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	M2	Current Rating*
						2	4	7	1	1	AAA+	
						2	1	5	16		AAA	
								2	2		AAA-	
					1	3		3			AA+	
				2				2	2		AA	
				1		1		1	2		AA-	
			1			2		2			A+	
						1					A	
						2		2			A-	
		9	3			1	1				BBB+	
			19	5							BBB	
				13							BBB-	
						1		1	1		BB+	
						1					BB	
											BB-	
											B+	
									1		B	
											B-	

At Issuance

All CAS M-1 and M-2 bonds have current ratings the same as or higher than their rating at issuance.

Additional Ratings

In 2023, CAS M-1, M-2, and B-1 bonds have received 118 upgrades.

In 2024\*, there were 19 upgrades on CAS M-1, M-2, and B-1 bonds.

- Upgrade
- No Change
- Downgrade

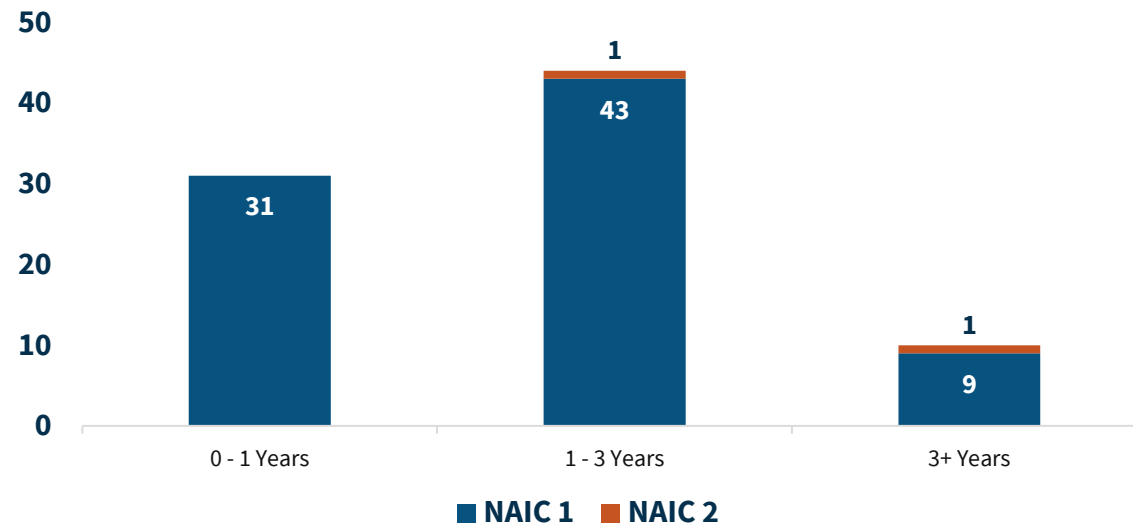
\* Current ratings as of 01/13/25



# CAS REMIC and Direct Debt NAIC Designations for 2024

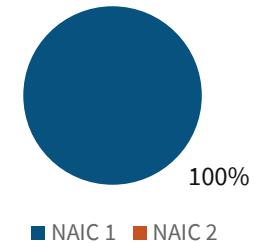
- 3 A-1 bonds, 25 M-1 bonds and 55 M-2 bonds received designations of NAIC 1 for the 2024 filing year.
- Our 2024 CAS REMIC transactions received NAIC designations for the first time for the 2024 filing year, including the new A-1 bond.
- CAS REMIC and direct debt transactions received favorable NAIC designations for the 2024 filing year. View the full list of NAIC designations [here](#).

**Total A-1, M-1, and M2 CAS NAIC Designations 2024**

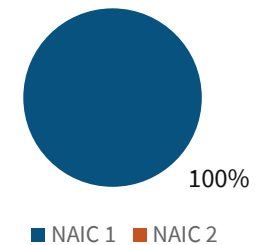


Note: The current WALs were run on January 9, 2025  
NAIC designations as of the 2024 filing year

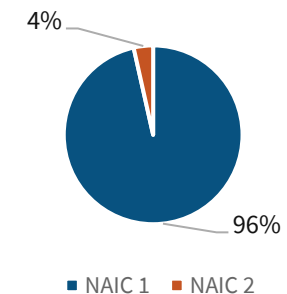
**REMIC A-1 Classes** by NAIC rating



**REMIC and Direct Debt M-1 Classes** by NAIC rating

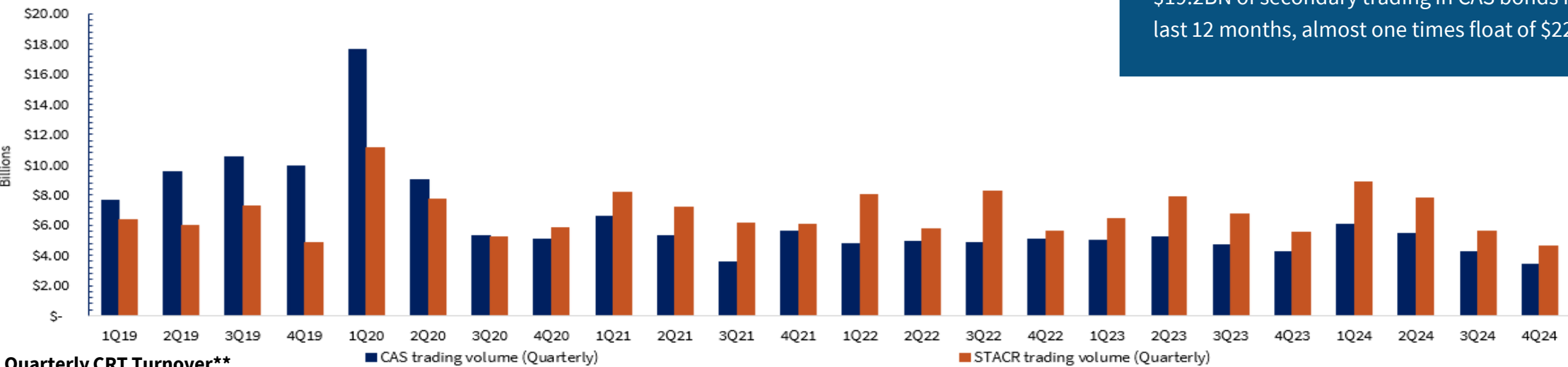


**REMIC and Direct Debt M-2 Classes** by NAIC rating



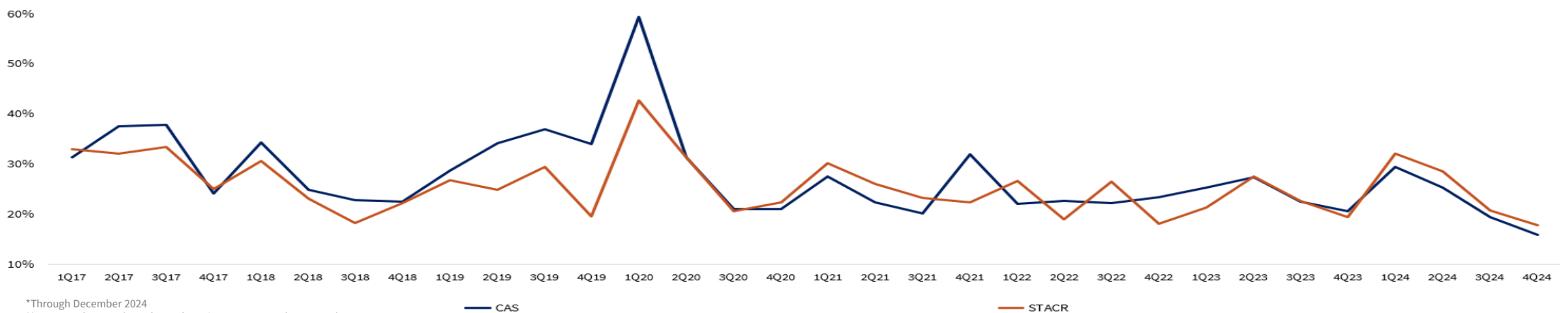
# CRT Quarterly Trading Volume and Turnover

Quarterly CRT Trading Volume\*



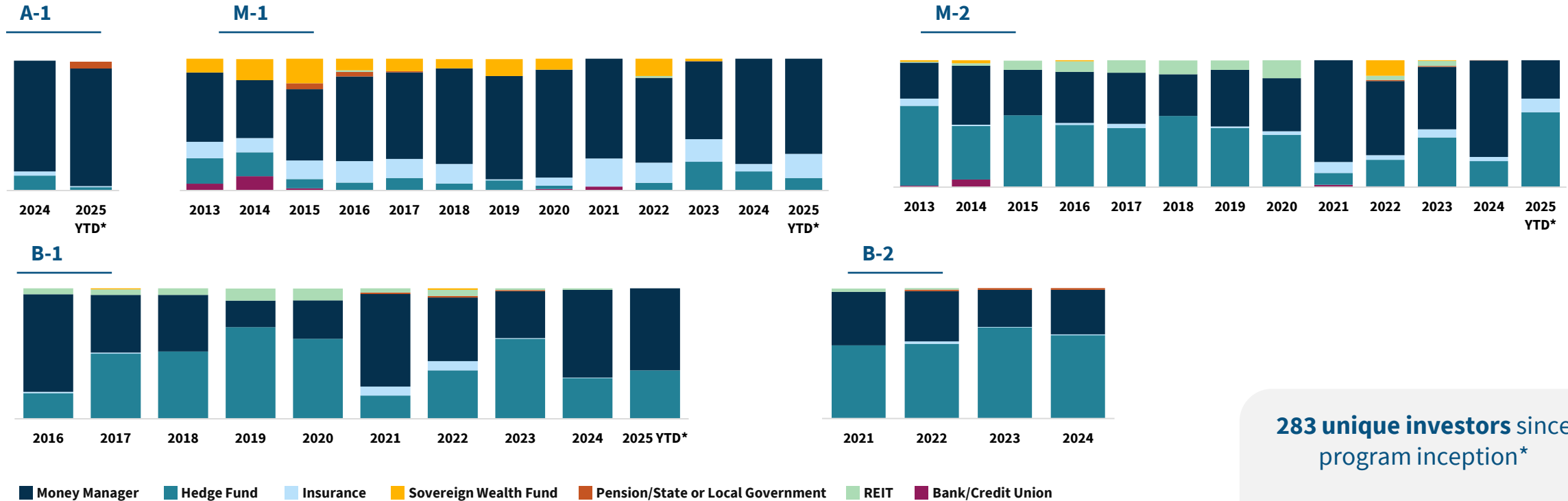
\$19.2BN of secondary trading in CAS bonds in the last 12 months, almost one times float of \$22.0BN\*

Quarterly CRT Turnover\*\*



\*Through December 2024  
\*\*Note: total quarterly trading volume/average quarterly outstanding UPB  
Source: Fannie Mae trading survey, Bloomberg

# CAS Benchmark Program Investor Distribution Through 2025-R01



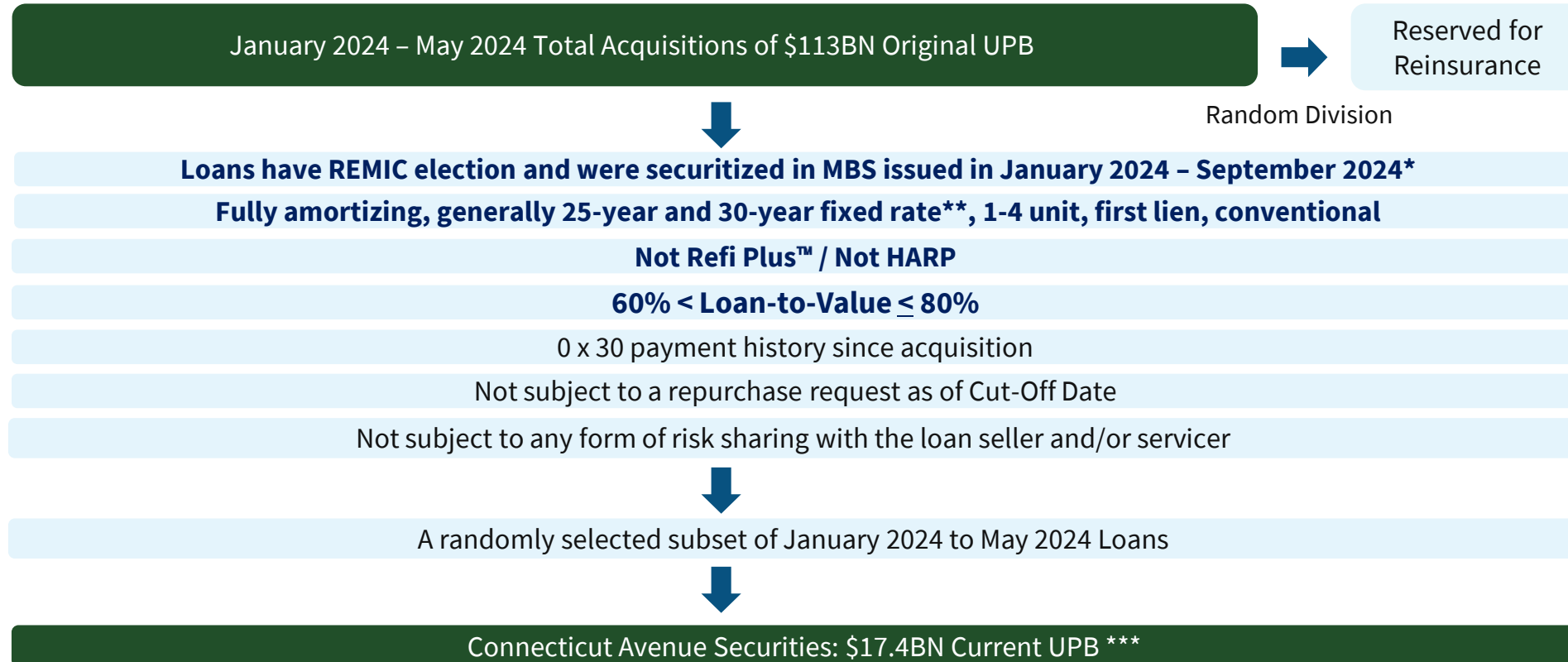
\*As of February 5, 2025  
Source: Fannie Mae and dealers, primary issuance only

**283 unique investors** since program inception\*

**78 new investors** since returning to market in 2021\*

For additional details on CAS Benchmark Program Investor Distribution data, please visit:  
<https://capitalmarkets.fanniemae.com/media/document/xlsx/cas-program-investor-distribution.xlsx>

# CAS 2025-R01 G1 Reference Pool Selection Process



Note: No more than one loan made to a given borrower is included in the reference pool, except for investor loans, in which case no more than two loans to the same borrower are included.

\* January 2024 – May 2024 acquisitions were pooled into REMIC-eligible MBS in January 2024 – September 2024.

\*\* All loans will have terms greater than 240 months and less than or equal to 360 months. Other minimal exclusion criteria apply.

\*\*\* Current UPB Reflects CAS 2025-R01 November 2024 Book Profile. Numbers may not foot due to rounding.

# CAS 2025-R01 Transaction Overview (G1)

\$777.109 million in offered notes<sup>(1)</sup>

Class	Loan Group	Offered Notes (Est. MM)	Credit Support		Expected Ratings (S&P/KBRA)	10% CPR to Early Redemption Date	
			Attach (%)	Detach (%)		Expected WAL (yrs)	Expected Principal Window
1A-1	1	\$264.548	4.35%	5.95%	A+ (sf) / A+ (sf)	1.91	1 – 37
1M-1	1	\$264.548	2.75%	4.35%	BBB+ (sf) / BBB+ (sf)	1.84	1 – 47
1M-2	1	\$140.541	1.90%	2.75%	BBB- (sf) / BBB (sf)	4.77	47 – 60
1B-1	1	\$107.472	1.25%	1.90%	BB- (sf) / BB+ (sf)	4.99	60 – 60
1B-2H <sup>(2)</sup>	1	Not Offered	0.50%	1.25%	N/A	N/A	N/A
1B-3H <sup>(2)</sup>	1	Not Offered	0.00%	0.50%	N/A	N/A	N/A

- (1) The Maturity Date for all classes will be September 2044. First Early Redemption Date will be September 2029.
- (2) The 1B-1 Notes may be increased, subject to a maximum principal balance of \$118,062,000, at or before the time of pricing.
- (3) 1B-2H and 1B-3H are reference tranches, not offered notes, and are included solely to illustrate the structure of the transaction.

Transaction Timeline

January 2025

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Tape Release

Pre-Marketing

Execution

Closing

Deal timing:

Loan Data File: January 13, 2025

Pre-Marketing: January 21-22, 2025

CAS 2025-R01 Execution: January 23, 2025

Closing and Settlement: January 29, 2025



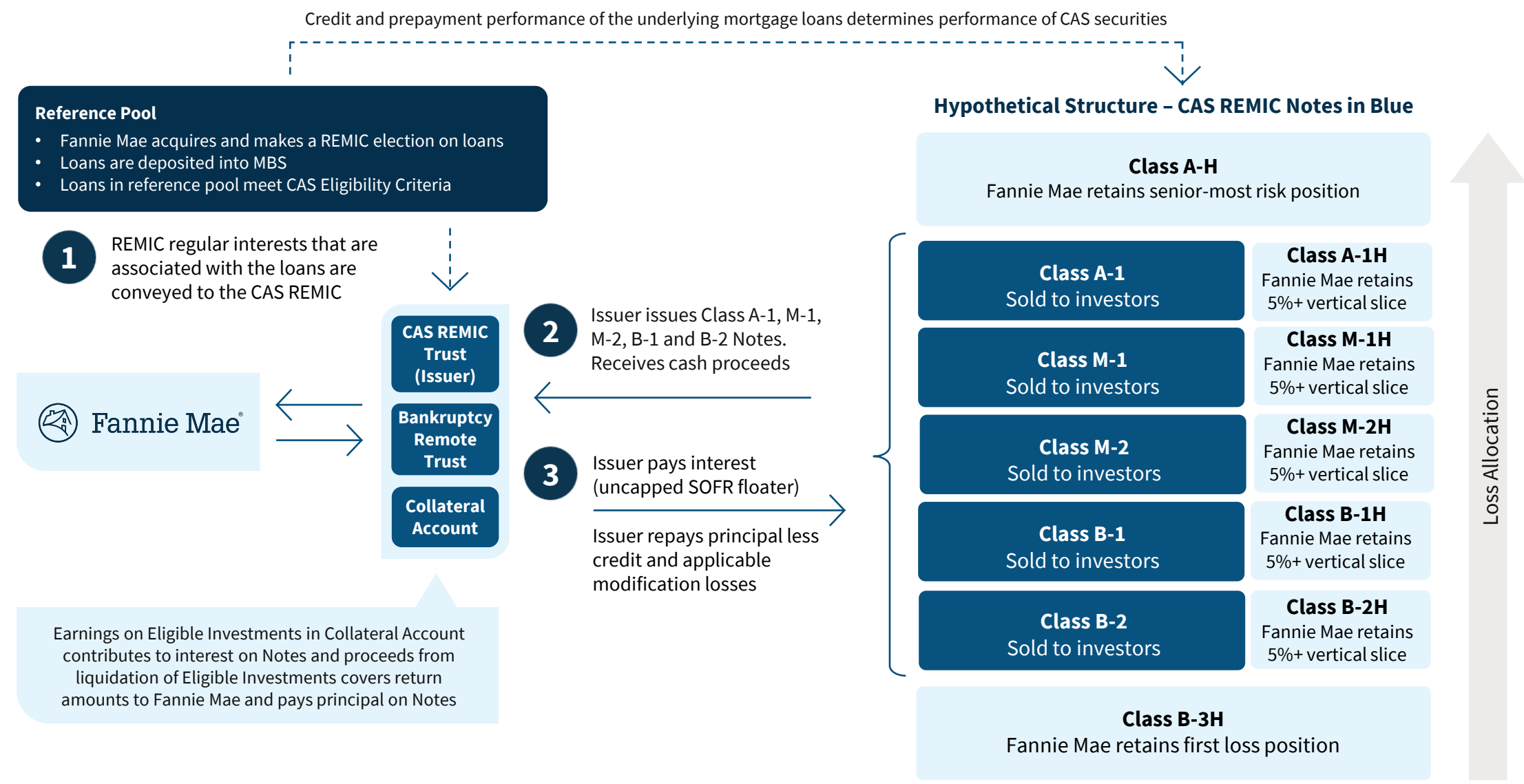
# CAS 2025-R01 Structural Overview (G1)

Reference Pool January 2024 – May 2024 (Loans with REMIC election)	
Group 1 Loans Original LTV 60.01 – 80.00%	
Class 1A-H 94.05% thick 5.95% credit support	
Class 1A-1 1.60% thick 4.35% credit support (Min. CE)	Class 1A-1H (5% vertical slice)
Class 1M-1 1.60% thick 2.75% credit support	Class 1M-1H (5% vertical slice)
Class 1M-2 0.85% thick 1.90% credit support	Class 1M-2H (5% vertical slice)
Class 1B-1 0.65% thick 1.25% credit support	Class 1B-1H (5% vertical slice)
Class 1B-2H 0.75% thick 0.50% credit support	
Class 1B-3H 0.50% thick 0.00% credit support	

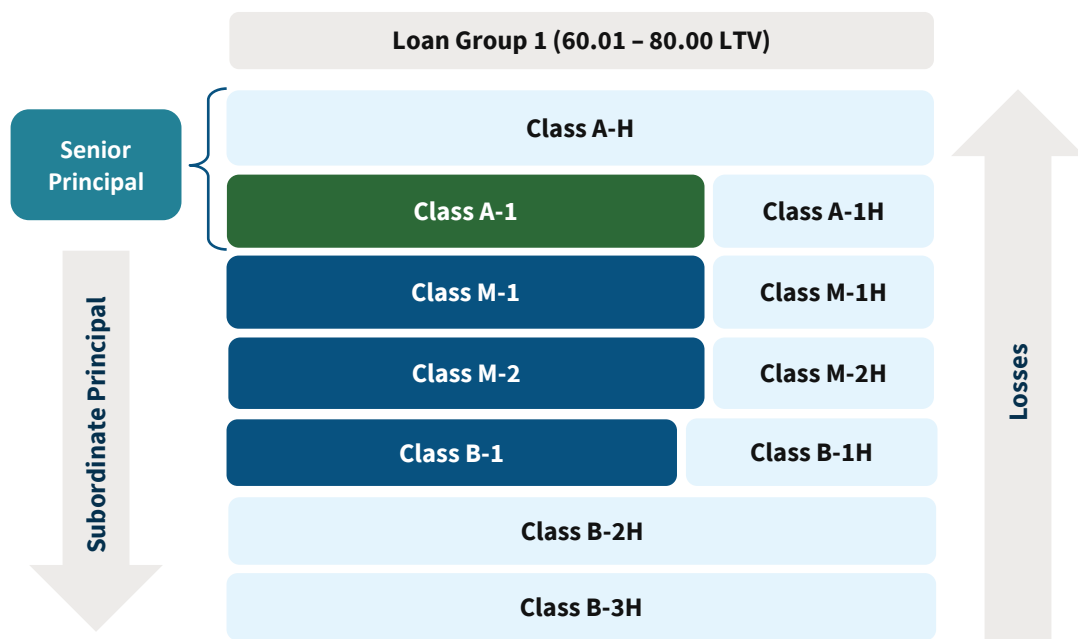
All H tranches are reference tranches only and will not be issued

- Loans acquired in January 2024 – May 2024 and securitized into MBS pools issued in January 2024 – September 2024.
- Reference Pool contains only 60.01-80.00% LTV loans.
- 20-year legal final maturity; Fannie Mae optional call starting in year 5.
- Fannie Mae optional 10% clean up call.
- Notes are par-priced uncapped SOFR-based floaters.
- Minimum credit enhancement to unlock unscheduled and scheduled principal for subordinate tranches is 4.35%.
- Delinquency test must be satisfied to unlock unscheduled and scheduled principal for subordinate tranches.
- The 1A-1 tranche will only be subject to a Cumulative Net Loss Test of 1.00%.
- Credit events are based on actual losses.
- The Class 1M-2 and Class 1B-1 will offer exchange features with rated exchangeable notes.
- The Class 1A-1, 1M-1, Class 1M-2, and 1B-1 Notes will be ERISA eligible.
- All classes are issued as REMICs and treated as debt-for-tax.
- Fannie Mae will retain 100% of the first loss tranches and the senior A-H tranche, and at least 5.00% of all offered tranches. Retention is in line with requirements of Regulation (EU) 2017/2402 Section 5.1(d) and Regulations 32A-32D and Schedule A1 of the Securitisation Regulations 2024 (as amended) and Article 5 of Chapter 2 of the PRA Rules and SECN 4 of the FCA Rules, regarding retention of material net economic interest.

# CAS REMIC Structure



# CAS 2025-R01 Cash Flow Waterfall




**Senior Notes:** A-H and A-1 tranches  
**Subordinate Notes:** M tranches and B tranches  
**Retained Vertical Slice:** A-1H, M-1H, M-2H, B-1H

- Principal payments and losses applied to the tranches mirror the activity on the loans in the underlying Reference Pool.
- Principal Payments** are first allocated pro rata between senior tranches and subordinate tranches.
  - The A-1 tranche is paid from the senior principal and according to a defined payment schedule, which is set at deal issuance.
  - Between months 37 and 39, the A-1 tranche will receive all scheduled and unscheduled principal that is allocable to the senior classes until it is paid in full ('turbo period').
  - If the A-1 tranche is not paid off by month 39, it will receive any remaining principal via a 'balloon' payment in period 39.
  - Subordinate principal is applied sequentially starting with the M-1 tranche (no change).
- Losses** are applied in reverse sequential order beginning with class B-3H.
  - The B-2H and B-3H tranches will have hypothetical class coupons for use in connection with the allocation of Modification Loss Amounts.
- Principal payments and losses are allocated pro rata between the sold tranches and the retained vertical slice.
- The specified Cumulative Net Loss Test (Cumulative Net Loss < 1.00%) must be satisfied for the A-1 tranche to receive the A-1 Reduction Amount.



# Credit Events and Allocation of Losses


## Allocation of principal loss amounts



1	Class B3H - Principal
2	Class B2H - Principal
3	Class B1 - Principal
4	Class M2 - Principal
5	Class M1 - Principal
6	Class A1 - Principal

- The B3H and B2H classes will have hypothetical class coupons attached to them for use in connection with the allocation of Modification Loss Amounts. Payment Deferrals are **not** treated as modification events within this structure.
- Modification Loss Amounts will not be used in the calculation of the Cumulative Net Loss Test unless they reduce principal of a class.

## Allocation of modification loss amounts



1	Class B3H - Interest
2	Class B3H - Principal
3	Class B2H - Interest
4	Class B2H - Principal
5	Class B1 - Interest
6	Class B1 - Principal
7	Class M2 - Interest
8	Class M2 - Principal
9	Class M1 - Interest
10	Class M1 - Principal
11	Class A1 - Interest
12	Class A1 - Principal



# Credit Insurance Risk Transfer (CIRT) Overview



# 2025 CIRT Issuance Calendar



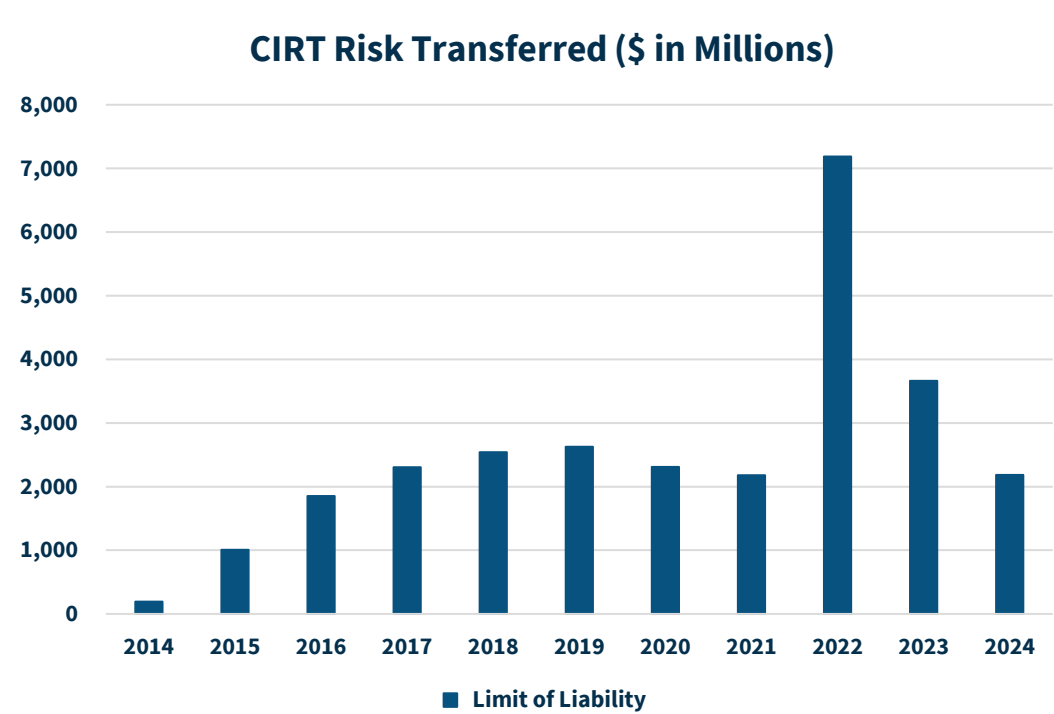
- Calendar highlights periods in 2025 during which Fannie Mae may execute CIRT transactions.
- Fannie Mae anticipates acquiring approximately \$2.3-2.6 billion of CIRT coverage across 5-6 deals in 2025.
- Fannie Mae may choose not to execute in some or all periods.
- Coverage volumes and utilization of available execution windows continue to be dependent on business factors and market conditions.

Quarter	Low LTV Deal(s)	High LTV Deal(s)
Q1 2025	✓	✓
Q2 2025	✓	✓
Q3 2025	–	–
Q4 2025	–	–

Note: Subject to change.



# Mortgage Credit Risk Transferred under the CIRT Program



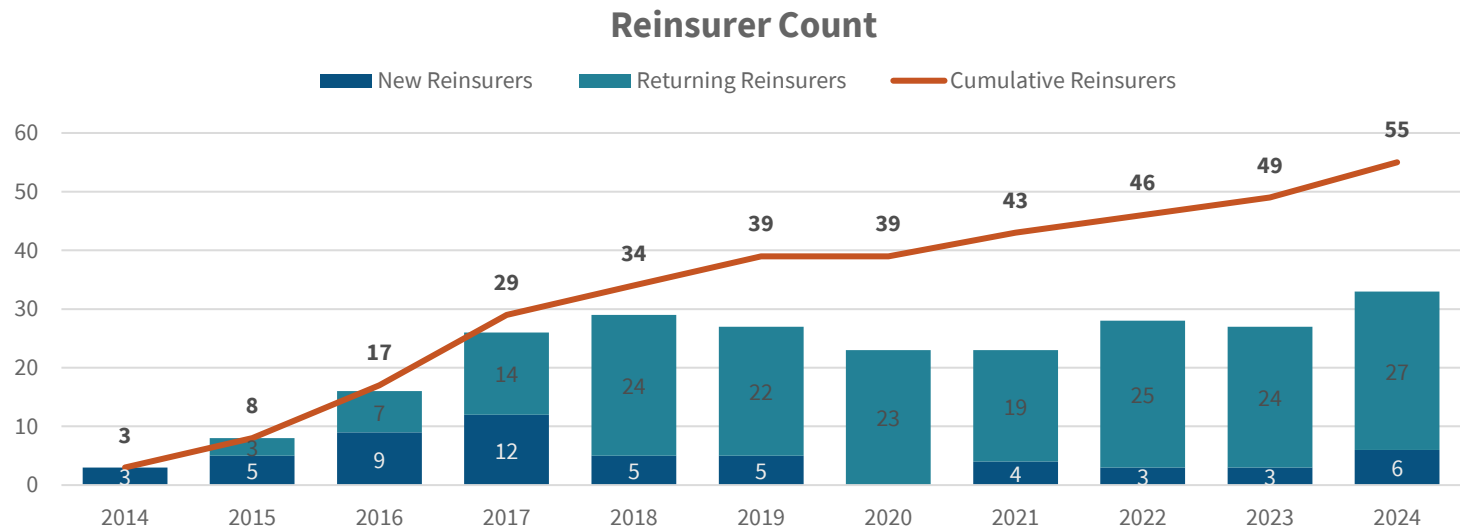
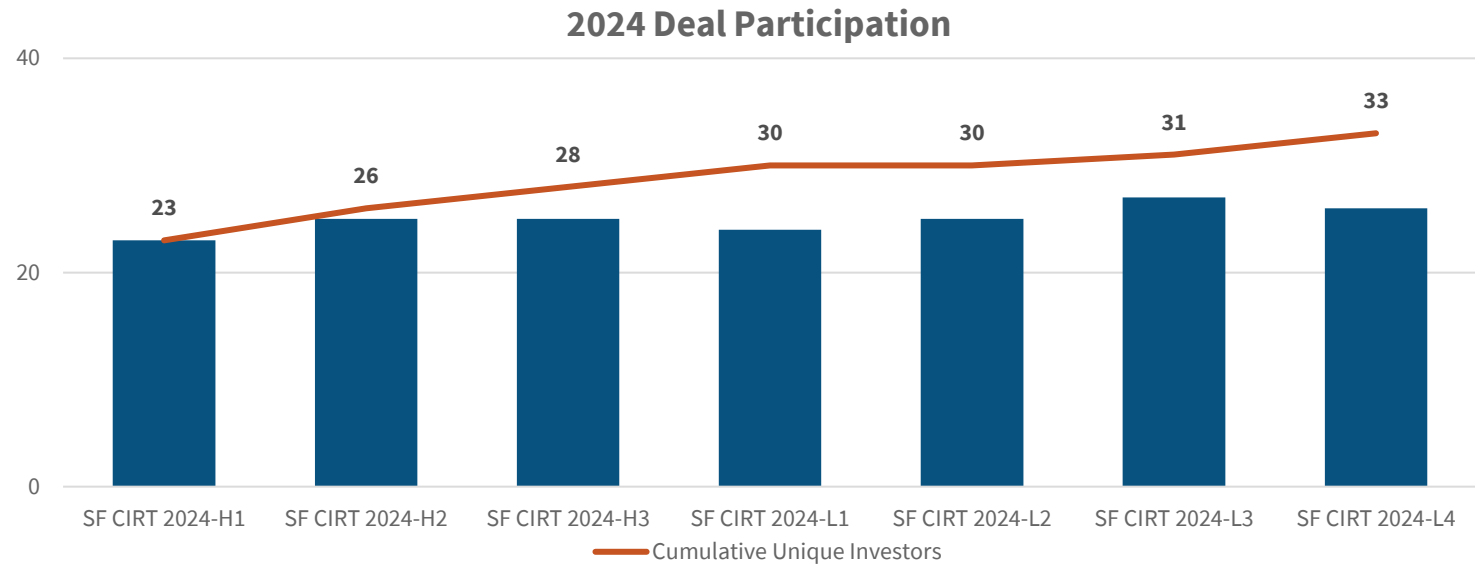
- ✓ Large, geographically diversified loan pools provide broad exposure to U.S. housing market
- ✓ Fannie Mae acts as an intermediary between the lender and investor to set standards, manage quality, mitigate losses, and maximize value
- ✓ Transparent pricing provided on our webpage for all transactions – along with key deal documents and transaction data
- ✓ Powerful investor resources – including proprietary analytical tool Data Dynamics®

The CIRT Program has provided over \$28B in coverage since program inception.

Note: As of December 31, 2024



# CIRT Reinsurer Participation



Note: As of December 31, 2024



# Evolution of the CIRT Program

2014

- AON protective cell insurance company
- CIRT 2014-1 – Inaugural excess of loss (XOL)
- Covering 60-95 loan to value (LTV), actual loss structure, 10-year legal maturity
- Partial collateralization by reinsurers
- Premium based on unpaid principal balance (UBP) of pool
- Limit steps down in year 3

2015

- Introduced early termination option at 5th anniversary
- 10% clean up call
- Separate transactions for pools of <80 LTV and >80 LTV loans
- Cross collateralization of deals with same protective cell

2016

- First front-end (FE) structure
- 6 month fill up period, premium recalibration after fill up
- Open to Mortgage Insurance (MI) reinsurers only
- First deal to cover 15 yr fixed-rate mortgages
- 7.5 yr term, 75-97 LTV
- First limit stepdown in year 2

2017

- First FE transaction open to all reinsurers; covering <80 LTV loans
- 12 month fill up period
- Premium calibration based on loan level price adjustments (LLPAs)
- CIRT 2017-6 first deal with insurance broker Guy Carpenter

2018

- First deal to stepdown limit monthly beginning on the 12-month anniversary
- First deal to remove delinquent loans where property was impacted by hurricane in a FEMA disaster area

2019

- Extended legal maturity to 12.5 years
- Included modification expenses
- Introduced more granular ratings-based collateral grid
- Premium capture based on loan performance
- First hybrid bulk and FE deal covering >80 LTV loans without MI lender risk share loans

2022

- Introduced collateral reduction factor to reflect cross collateralization
- Extended legal maturity to 12.5 yrs

2023

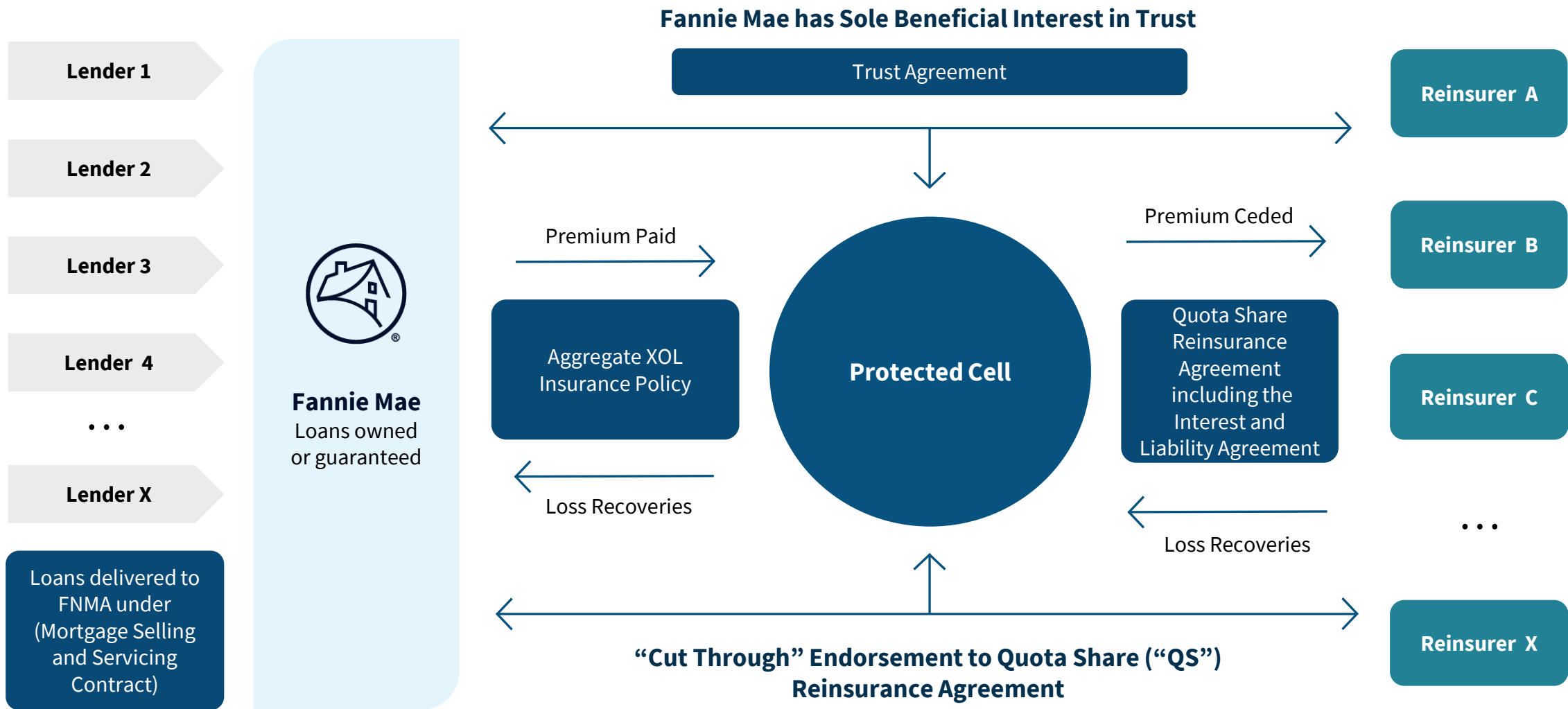
- Included payment deferral as a modification
- Consolidation of the two cell Trust Agreements to reflect Fannie Mae as direct beneficiary

2024

- New structure optimizing for Enterprise Regulator Capital Framework (ERCF):
  - Accelerated reduction of limit of liability,
  - Targeted detachment point, and
  - Premium rate applied to limit
- Extended legal maturity to 18 years
- Expanded trust collateral assets



# Reinsurance Deal Structure



# CIRT 2024-L4 Loan Pool Selection Process

**September 2023 through December 2023 Total Acquisitions**  
**Selection of Acquisitions**  
(random division based upon recent acquisition period)



Proportional  
allocation for CAS



**Fully amortizing, generally 25-year and 30-year fixed-rate<sup>1</sup>, 1-4-unit, first lien, conventional**

**Not Refi Plus™ / Not HARP<sup>2</sup>**

**60% < Loan-to-Value < 80%**

0 x 30 payment history since acquisition

Not subject to a repurchase request as of Cut-Off Date

Not subject to any form of risk sharing with the loan seller and/or servicer

*Other exclusions may apply*



A randomly selected subset of Sept 2023 to Dec 2023 Loans



**UPB covered at Issuance CIRT 2024-L4: \$7.87 Billion**

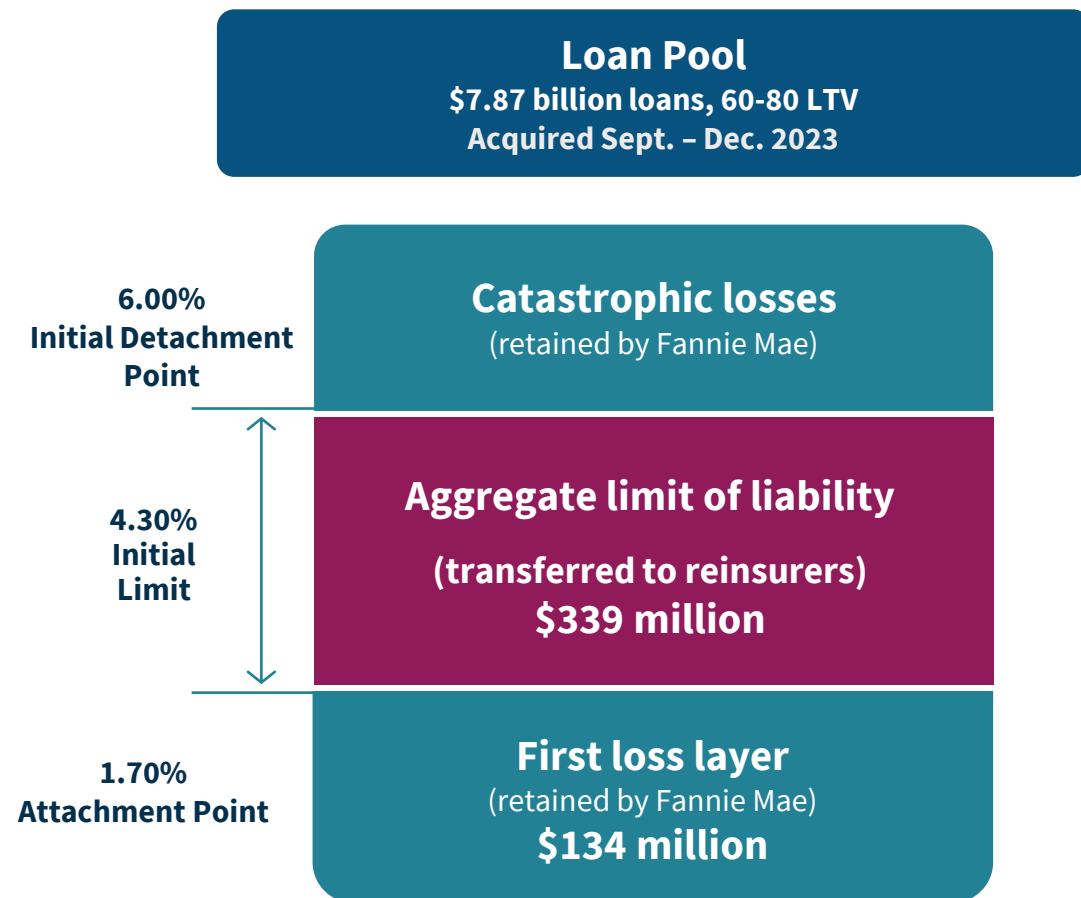
1. All loans will have terms greater than 240 months and less than or equal to 360 months. Other minimal exclusion criteria apply.

2. Fannie Mae acquires HARP loans under its Refi Plus™ initiative, which provides expanded refinancing opportunities for eligible Fannie Mae borrowers.



# Insurance Policy Structural Overview

## Illustration (CIRT 2024-L4)



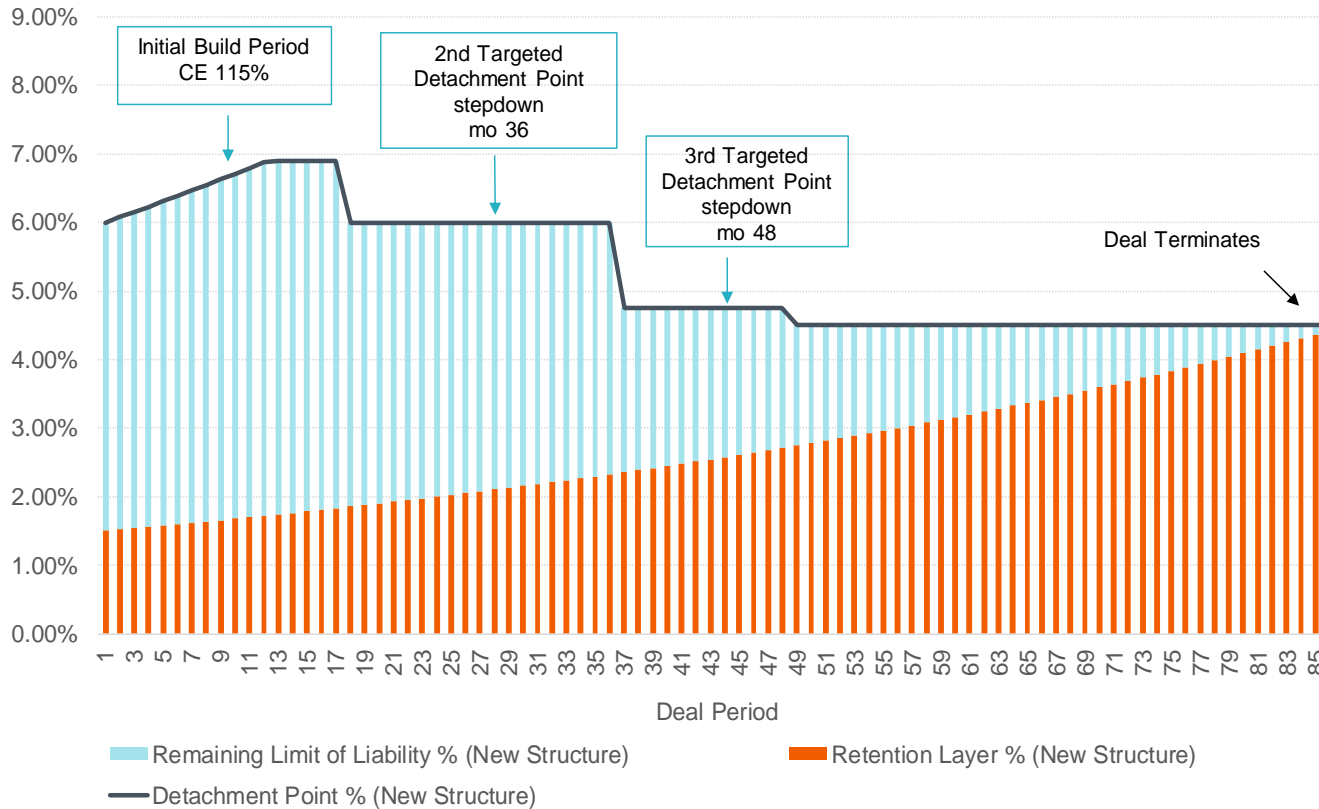
## Key Features

- Simple loss structure
- Structured with retention layer and an Initial Detachment Point.
- Fannie Mae retains first loss (retention) layer.
- If retention layer is exhausted, reinsurers cover actual losses up to aggregate limit of liability.
- Actual loss is determined after property disposition.
- Remaining Limit of Liability will be derived as the difference between the Detachment Point and the Remaining Retention Layer.
- Partial collateralization of risk exposure, based upon external ratings of reinsurer.
- Termination option at any time on/after a specified anniversary date (typically 60 months) with a fee paid to reinsurers.
- “Clean up” call once covered balance  $\leq 10\%$  initial covered balance without a termination fee.



# Limit of Liability Step Down

## Expected Scenario - Illustration



- The Initial Detachment Point will be reduced on a schedule as outlined in the Policy, subject to a delinquency trigger test.
- Remaining Limit of Liability will be derived as the difference between the Current Detachment Point and the Remaining Retention Layer.
- Limit step down beneficial to reinsurers as collateral requirement declines.
- Fannie Mae has early termination option, typically at Month 60, or thereafter.



# Comparison of Typical CIRT Bulk Deals and Front-End Deals

	Bulk Deal	Front-End Deal
<b>Loan Acquisitions Period</b>	2-12 months prior to inclusion in pool	Future acquisition months (can also include loans acquired within the last 12 months)
<b>Fill-up Period</b>	N/A	12-15 months
<b>Covered Loans</b>	15-30 year FRM	30-year FRM
<b>Limit of Liability Determination</b>	At the time of policy execution	Limit % determined at the time of policy execution; limit amount determined at the end of the fill-up period
<b>Limit of Liability Step Down</b>	May begin 1 month following <b>effective</b> date of policy and monthly thereafter, subject to the scheduled credit enhancement (CE) build	May begin 1 month following <b>effective</b> date of policy and monthly thereafter
<b>Monthly Premium</b>	Based on competitive bids; locked in at time of execution	Based on competitive bids for a sample pool of loans, with pricing true-up at end of fill-up period
<b>Loan Profile Restrictions</b>	Follows standard eligibility; covered loans are disclosed prior to pricing	Follows standard eligibility; pricing based upon an indicative reference pool; may include restrictions on final risk attributes of the pool
<b>Reinsurer Collateral</b>	Collateral amount due at time of execution	Collateral posted as covered loan pool is delivered



# Summary of Key Recent CIRT Deal Terms

CIRT Transaction Name	2024-L4	2024-H3	2024-L3	2024-H2
Year	2024	2024	2024	2024
Product	241 - 360 month FRM	241 - 360 month FRM	241 - 360 month FRM	241 - 360 month FRM
Deal Type	Bulk	Bulk	Bulk	Bulk
OLTV	>60-80	>80-97	>60-80	>80-97
Term (years)	18	18	18	18
Effective Date	09/01/24	08/01/24	05/01/24	04/01/24
Termination Date	08/31/42	07/31/42	04/30/42	03/31/42
Time-based Cancellation Option (anniversary month)	60	60	60	60
Covered Loan Acquisition Period	9/2023-12/2023	10/2023 - 12/2023	7/2023-9/2023	5/2023 - 9/2023
Total Initial Principal Balance	\$7,874,235,883.47	\$6,435,028,294.51	\$8,224,478,603.27	\$12,119,559,019.46
Initial Detachment Point (\$)	\$472,454,153.01	\$279,923,730.81	\$477,019,758.99	\$509,021,478.82
Initial Limit of Liability (\$)	\$338,592,142.99	\$160,875,707.36	\$337,203,622.73	\$284,809,636.96
Aggregate Retention (\$)	\$133,862,010.02	\$119,048,023.45	\$139,816,136.26	\$224,211,841.86
Initial Detachment Point %	6.00%	4.350%	5.800%	4.200%
Targeted Detachment Point % During Initial Build Period	6.90%	N/A	N/A	N/A
Second Detachment Point Target %	4.75%	N/A	N/A	N/A
Third Detachment Point Target %	4.50%	N/A	N/A	N/A
Initial Limit of Liability %	4.30%	2.50%	4.10%	2.35%
Aggregate Retention %	1.70%	1.85%	1.70%	1.85%
Initial Step Down (anniversary month)	1	12	12	12
Initial Build Period (months)	15	N/A	N/A	N/A
Second Detachment Point Target % (anniversary month)	36	N/A	N/A	N/A
Third Detachment Point Target % (anniversary month)	48	N/A	N/A	N/A
Annual Premium (bps)	120.00	3.90	5.00	4.50
Annual Premium Basis	Remaining Limit of Liability	Current Principal Balance of Covered Loans	Current Principal Balance of Covered Loans	Current Principal Balance of Covered Loans

Above is a summary of CIRT deal terms that, in some cases, may approximate the definitive terms of CIRT transactions posted on the Fannie Mae website:

<https://capitalmarkets.fanniemae.com/credit-risk-transfer/single-family-credit-risk-transfer/credit-insurance-risk-transfer/cirt-pricing>

Definitive deal terms are included in the published deal documents for each CIRT transaction.



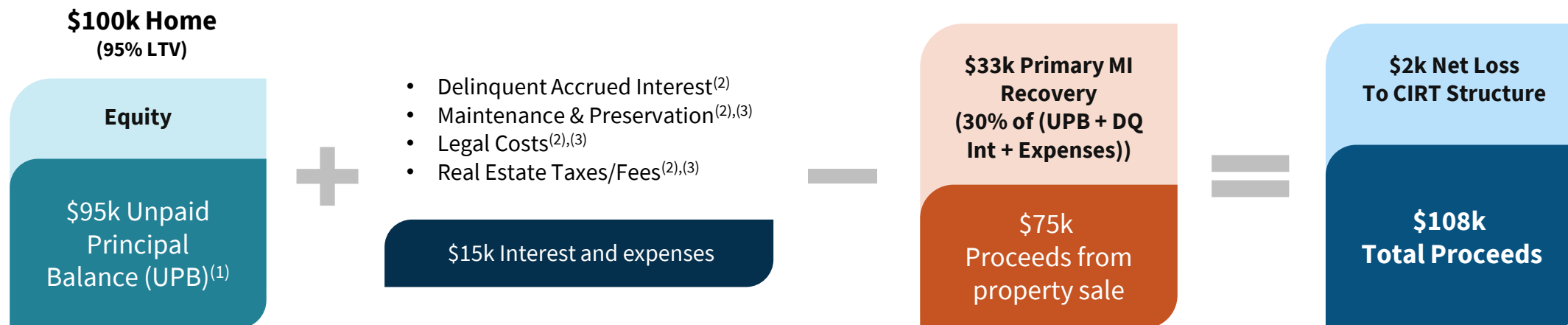
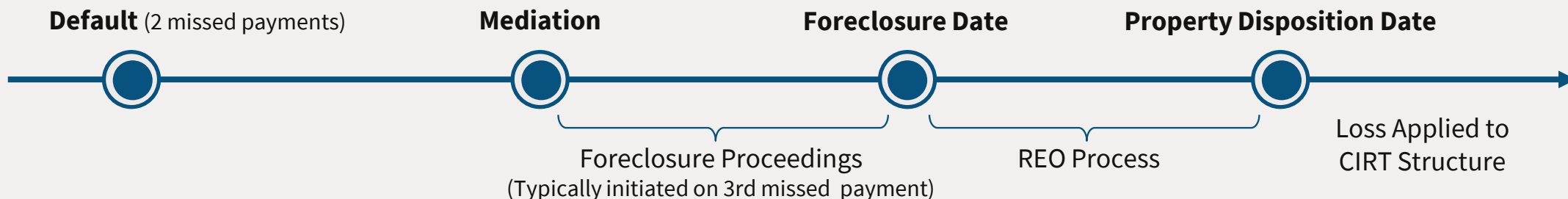
# Insurance Policy Key Terms – Sample

(CIRT 2024-L4)

Insurance Structure:	Aggregate excess of loss credit insurance	
Covered Loans:	Portfolio of 21 to 30-year fixed-rate residential mortgage loans acquired between September 1, 2023, and December 31, 2023	
Initial Principal Balance:	\$7.88 Billion	
Initial Limit of Liability:	4.30% of the total Initial Principal Balance (\$339M)	
Retention / First Loss Risk:	1.70% of the total Initial Principal Balance (\$134M)	
Monthly Premium Rate:	0.10% of remaining limit of liability	
Step-Down of Limit Liability:	Initial	1 month following effective date
	Subsequent	each month thereafter
	Initial Detachment Point %	Builds to 6.90% (6.00% x 115% CE Build) from months 1 to 14
		Resets to 6.00% from months 15 to 35
	Second Detachment Point Target %	Steps down to 4.75% from months 36 to 47
	Third Detachment Point Target %	Steps down to 4.50% from months 48 to Term
	Delinquency Test's Multipliers and Schedule <i>(Multipliers are applied to the SDQ and Liquidated Covered Loan UPB of the covered loan pool)</i>	900% multiplier from months 1 to 14
		800% multiplier from months 15 to 23
		550% multiplier from months 24 to 35
		450% multiplier from months 36 to 47
		400% multiplier from months 48 to Term
Cancellation:	18-year term. Fannie Mae may terminate coverage on/after the 5-year anniversary, and early termination fee paid if early termination option exercised between 5-year and 10-year anniversary. Also subject to a 10% clean-up call, and if exercised no termination fee will be paid.	



# Illustration of Property Disposition and Loss to CIRT Structure



<sup>(1)</sup> Loss covered by Mortgage Insurance

<sup>(2)</sup> The covered loss may be curtailed based upon eligibility under MI policy

<sup>(3)</sup> The covered loss may be estimated under MI factor



# Historical Comparative Analysis



# CRT-Eligible Profile Summary

## > 60-97 LTV Historical FRM30 Loan Acquisition Profile

Orig Year	Original UPB	WA Note Rate	WA FICO	WA DTI	WA OLTV	WA OCLTV	% Purchase	% CA	WA Risk Layers <sup>1</sup>	% Investor	% FICO < 680	% Cash-out	% DTI 46-50 <sup>2</sup>
1999-2004	\$1,289.3B	6.50%	712	34.8	79.0	79.6	42%	17%	0.81	4.2%	28.1%	25.8%	22.7%
2005-2008	\$694.7B	6.17%	723	39.2	78.4	80.2	48%	12%	0.94	5.9%	23.4%	32.3%	32.8%
2009-2013	\$1,321.2B	4.41%	760	33.3	78.1	79.0	45%	24%	0.33	6.0%	3.7%	16.2%	7.6%
2014-2017	\$1,191.1B	4.18%	746	34.9	81.8	82.3	65%	20%	0.36	6.4%	9.2%	15.0%	5.7%
2018-2021	\$2,324.6B	3.58%	750	35.7	81.1	81.3	54%	18%	0.43	4.4%	6.5%	16.5%	15.9%
2022-2023	\$625.6B	5.54%	750	38.2	83.2	83.3	83%	12%	0.48	5.9%	6.5%	11.9%	23.4%

Source: Fannie Mae Q4 2023 LLPUB data release

## CAS/CIRT Eligible Loan Issuance Profile

Issue Qtr	Original UPB	WA Note Rate	WA FICO	WA DTI	WA OLTV	WA OCLTV	% Purchase	% CA	WA Risk Layers	% Investor	% FICO < 680	% Cash-out	% DTI 46-50 <sup>2</sup>
1Q 2020	\$122.0B	3.92%	751	36.1	81.0	81.3	48%	20%	0.43	4.3%	5.1%	17.8%	15.8%
2Q 2020	\$211.0B	3.51%	755	34.6	80.4	80.7	38%	18%	0.36	4.0%	4.0%	15.6%	12.4%
3Q 2020	\$227.7B	3.22%	756	34.5	80.7	81.0	47%	18%	0.33	3.7%	4.2%	12.8%	11.9%
4Q 2020	\$244.7B	2.99%	756	34.4	79.9	80.2	45%	19%	0.36	4.6%	4.6%	14.3%	12.0%
1Q 2021	\$222.1B	2.90%	754	34.5	79.2	79.5	40%	20%	0.39	5.6%	5.2%	16.4%	12.2%
2Q 2021	\$219.8B	3.09%	752	35.1	80.6	80.8	51%	18%	0.40	3.1%	6.2%	17.1%	13.8%
3Q 2021	\$177.5B	3.14%	747	35.9	80.8	81.1	58%	18%	0.45	1.8%	8.1%	19.1%	16.4%
4Q 2021	\$167.4B	3.17%	746	36.2	80.2	80.3	56%	16%	0.55	5.0%	8.5%	24.2%	17.4%
1Q 2022	\$153.6B	3.44%	745	37.0	80.8	81.0	60%	17%	0.60	5.6%	8.7%	26.2%	19.3%
2Q 2022	\$125.4B	4.48%	746	37.6	82.8	82.9	76%	13%	0.54	6.6%	8.2%	18.1%	21.3%
3Q 2022	\$97.4B	5.45%	747	38.4	83.7	83.8	86%	12%	0.48	6.1%	7.5%	10.5%	24.4%
4Q 2022	\$64.3B	5.98%	749	38.7	83.9	84.1	89%	11%	0.46	6.4%	6.0%	8.1%	25.7%
1Q 2023	\$52.9B	6.37%	750	39.0	84.1	84.3	90%	13%	0.44	6.3%	5.2%	6.2%	26.6%
2Q 2023	\$71.1B	6.36%	755	38.1	84.0	84.2	92%	11%	0.38	5.3%	4.7%	4.8%	22.9%
3Q 2023	\$69.6B	6.67%	757	38.4	83.8	84.0	93%	11%	0.37	5.1%	4.2%	4.2%	23.9%
4Q 2023	\$58.3B	7.15%	758	38.9	83.6	83.7	94%	11%	0.39	4.8%	4.3%	3.7%	26.0%
1Q 2024	\$51.2B	6.87%	758	38.8	83.6	83.8	91%	13%	0.39	5.6%	3.9%	4.2%	25.6%
Apr 2024	\$18.6B	6.75%	759	38.9	83.8	84.0	91%	12%	0.40	5.1%	3.8%	4.4%	26.7%

Source: Fannie Mae Issuance Data through April 2024.

Only loans with LTV between 60-97 are included. Excludes loans with CLTV>97. Statistics weighted by origination UPB.

1. Risk Layers defined as: Investor Property, DTI 46-50 (rounded to the nearest integer), FICO<680, & Cash-out Refinance

2. Rounded to the nearest integer



# CRT-Eligible Profile Summary

## 60.01-80.00 LTV CAS Eligible Loan Issuance Profile

		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Original UPB (\$M)	\$	10,182	\$ 8,488	\$ 9,420	\$ 8,599	\$ 8,762	\$ 9,630	\$ 10,930	\$ 13,468	\$ 13,043	\$ 14,187	\$ 10,009	\$ 11,884	\$ 11,331	\$ 10,968
WA Interest Rate		7.2%	7.4%	7.2%	6.9%	6.6%	6.8%	6.8%	7.0%	6.9%	6.9%	6.6%	6.4%	6.2%	6.5%
WA FICO		760	758	760	760	760	761	762	763	763	762	761	761	761	761
WA DTI		38.1%	38.2%	38.0%	37.8%	37.9%	37.8%	37.8%	37.9%	38.0%	37.8%	37.6%	37.5%	37.6%	37.8%
WA LTV		75.6%	75.6%	75.6%	75.6%	75.5%	75.6%	75.5%	75.7%	75.6%	75.5%	75.3%	75.2%	75.1%	75.3%
WA CLTV		75.8%	75.8%	75.9%	75.9%	75.7%	75.9%	75.8%	75.9%	75.8%	75.7%	75.6%	75.5%	75.4%	75.4%
% Purchase		89.1%	89.3%	88.8%	85.2%	82.1%	85.3%	86.6%	89.5%	89.5%	87.8%	83.3%	75.6%	71.5%	76.5%
% CA		12.9%	10.5%	13.1%	13.6%	14.3%	13.0%	12.8%	11.8%	12.2%	12.0%	12.3%	13.0%	13.6%	12.5%
WA Risk Layers		0.45	0.49	0.47	0.47	0.51	0.48	0.46	0.45	0.45	0.44	0.44	0.46	0.42	0.47
% Investor		7.5%	10.2%	9.7%	9.9%	11.6%	9.5%	7.8%	7.7%	8.2%	7.6%	7.1%	9.2%	5.4%	7.9%
% FICO < 680		5.0%	6.1%	5.5%	5.0%	4.9%	5.0%	5.1%	4.6%	4.7%	5.1%	5.1%	5.4%	5.3%	5.2%
% Cashout		7.0%	6.7%	6.4%	8.2%	9.8%	8.5%	8.2%	7.0%	6.4%	7.1%	8.1%	8.6%	8.5%	9.6%
% DTI 46-50		25.7%	25.8%	25.3%	23.4%	24.6%	25.0%	24.5%	25.5%	25.3%	24.5%	23.8%	23.0%	23.2%	24.6%
% Moderate Temp BD		4.2%	5.1%	5.9%	5.2%	4.5%	4.3%	4.3%	4.1%	4.1%	4.0%	3.2%	3.0%	2.9%	3.4%
% Significant Temp BD		0.4%	0.7%	0.6%	0.5%	0.4%	0.5%	0.3%	0.4%	0.4%	0.4%	0.5%	0.5%	0.4%	0.5%

## 80.01-97.00 LTV CAS Eligible Loan Issuance Profile

		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Original UPB (\$M)	\$	8,685	\$ 8,274	\$ 8,508	\$ 7,756	\$ 8,158	\$ 8,982	\$ 10,131	\$ 13,143	\$ 11,974	\$ 13,025	\$ 9,275	\$ 11,193	\$ 10,325	\$ 9,306
WA Interest Rate		7.2%	7.3%	7.1%	6.8%	6.6%	6.7%	6.8%	7.0%	6.9%	6.9%	6.6%	6.4%	6.2%	6.5%
WA FICO		757	755	756	756	757	757	757	757	757	757	756	756	758	757
WA DTI		40.0%	40.0%	39.8%	39.6%	39.9%	40.0%	39.6%	39.9%	39.9%	39.7%	39.5%	39.5%	39.4%	39.8%
WA LTV		92.2%	92.7%	92.2%	92.4%	92.6%	92.6%	92.6%	92.5%	92.4%	92.4%	92.6%	92.5%	92.5%	92.5%
WA CLTV		92.2%	92.7%	92.3%	92.4%	92.6%	92.7%	92.6%	92.5%	92.4%	92.4%	92.6%	92.5%	92.5%	92.5%
% Purchase		98.5%	98.5%	98.3%	97.4%	97.2%	97.8%	98.2%	98.9%	98.7%	98.3%	96.5%	92.3%	89.3%	92.8%
% CA		10.5%	9.0%	11.2%	11.6%	11.1%	10.2%	9.6%	9.0%	9.3%	8.9%	9.7%	9.0%	9.1%	9.3%
WA Risk Layers		0.31	0.31	0.30	0.29	0.31	0.31	0.29	0.30	0.31	0.30	0.29	0.29	0.29	0.30
% Investor		0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.2%	0.2%	0.1%	0.3%	0.1%	0.2%	0.1%	0.3%
% FICO < 680		2.8%	3.1%	3.0%	2.4%	2.4%	2.5%	2.6%	2.5%	2.9%	2.5%	2.8%	2.7%	2.6%	2.6%
% Cashout		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% DTI 46-50		28.2%	27.3%	26.9%	26.1%	27.9%	28.5%	26.6%	27.6%	28.0%	27.3%	26.4%	26.0%	25.8%	27.5%
% Moderate Temp BD		6.8%	7.9%	9.1%	8.6%	6.8%	6.5%	6.1%	5.9%	6.0%	5.7%	4.7%	4.9%	4.5%	5.4%
% Significant Temp BD		0.3%	0.4%	0.6%	0.5%	0.3%	0.2%	0.2%	0.2%	0.3%	0.2%	0.3%	0.3%	0.3%	0.4%

1. Risk Layers defined as: Investment Property, Cash-out Refinance, DTI 46-50 (rounded to the nearest integer), and FICO < 680.

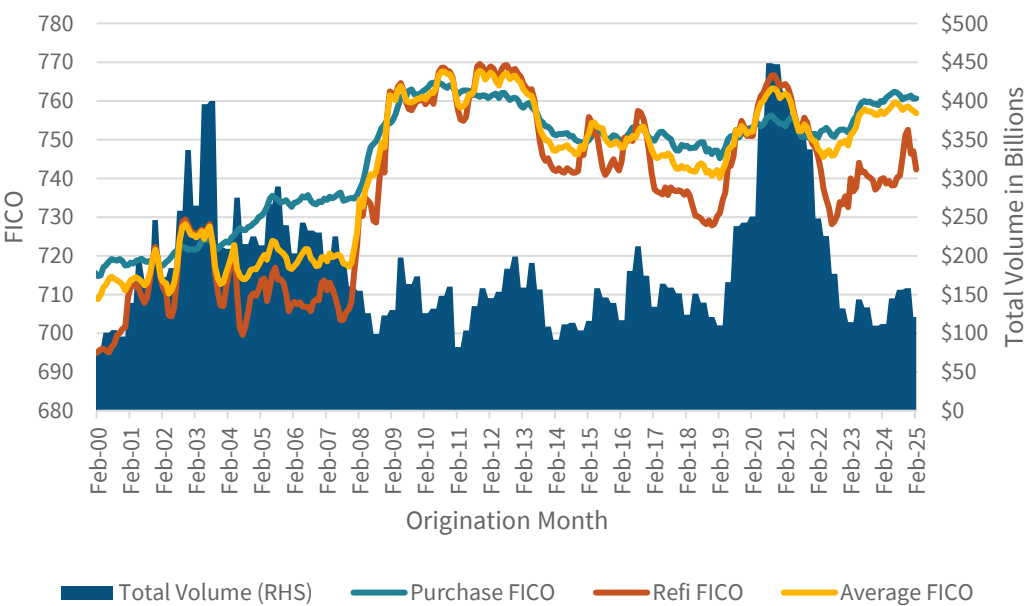
2. CRT-eligible criteria defined as: fixed-rate, 1-4 units, origination LTV (60,97], origination CLTV (60,97], origination DTI (0,50], original loan term (300,360], conventional, non-reperforming.

Source: Fannie Mae MBS issuance data. Fannie Mae internal data for % Moderate and Significant Temporary Rate Buydown.

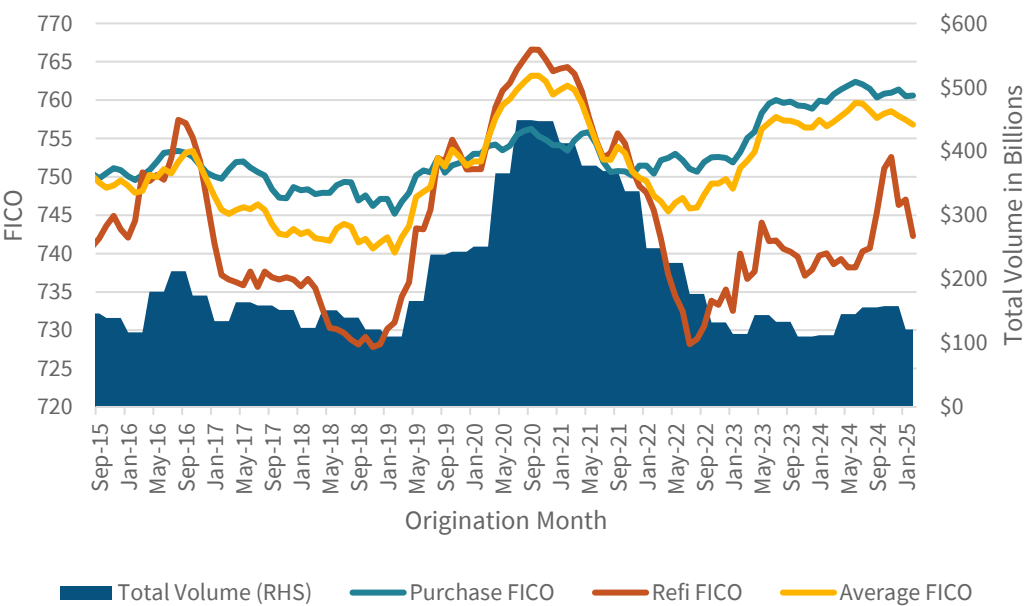
# Total Mortgage Origination Volume and FICO

Credit profile typically fluctuates with the origination cycle

- When origination capacity is tight, credit profile is strongest
- Lower origination volumes mean lenders have more capacity to underwrite to the full credit box
- Overall profile is heavily levered to profile of refinancings, as purchase profile is more stable



Feb 2000 – Feb 2025



Feb 2015 – Feb 2025

Source: Fannie Mae. Origination estimates for aggregate market



# DU Model Updates: 2021-2024

2021

## Sep 2021: DU 11.0 -

Updated the credit score used in the eligibility assessment for loans with more than one borrower by using an average median credit score when determining if a loan meets the minimum credit score requirement of 620.

- Consider a borrower's positive rent payment history in the credit risk assessment. Lender must obtain a 12-month Verification of Asset (VOA) report.
- *May result in additional loans receiving Approve/Eligible in DU.*

2022

**Mar 2022: DU 11.0** – Implemented a desktop appraisal option for purchase transactions secured by a one-unit principal residences, and LTV ratio is  $\leq 90\%$ .

**Apr 2022: DU 11.0** – Removed the minimum representative credit score requirement of 620 for RefiNow™ loans.

**Jul 2022: DU 11.0** – Updated risk and eligibility assessment in response to changing market conditions. *May yield a reduction in loan case files receiving Approval/Eligible, with most noticeable reduction on cash-out refinance transactions when multiple high-risk factors are present.*

**Aug 2022: DU 11.0** - Issue employment documentation messages specific to RefiNow when requirements differ. Asset documentation flexibility extended to RefiNow loan casefiles.

**Dec 2022: DU 11.0** - Enhancements to support loans where no borrower has traditional credit. Principal residence, purchase or limited cash-out refinance, LTV/CLTV  $\leq 95\%$ , DTI up to 50%. Cashflow assessment required via 12-month asset verification report. *May result in additional loans receiving Approve/Eligible recommendation.*

2023

**Jan 2023: DU 11.1** - Fine tune DU's ability to assess risk. *May yield a reduction in loans case files receiving Approve/Eligible with most notable reduction of loans with high LTV and DTI ratios with multiple high-risk factors.* Certain loans meeting specific housing goals or Duty to Serve initiatives are excluded.

- Updates to improve DU's ability to identify rent payment history on a third-party asset verification report.

**Oct 2023: DU 11.1** - DU no longer considers number of borrowers as a factor in the risk assessment. *May yield a slight increase in loan casefiles receiving an Approve/Eligible recommendation.*

2025

**Jan 2025: DU 12.0** - Deliver improvements in DU's ability to analyze mortgage delinquency risk through a comprehensive examination of risk factors from the loan application and the credit risk factors from a borrower's credit report.

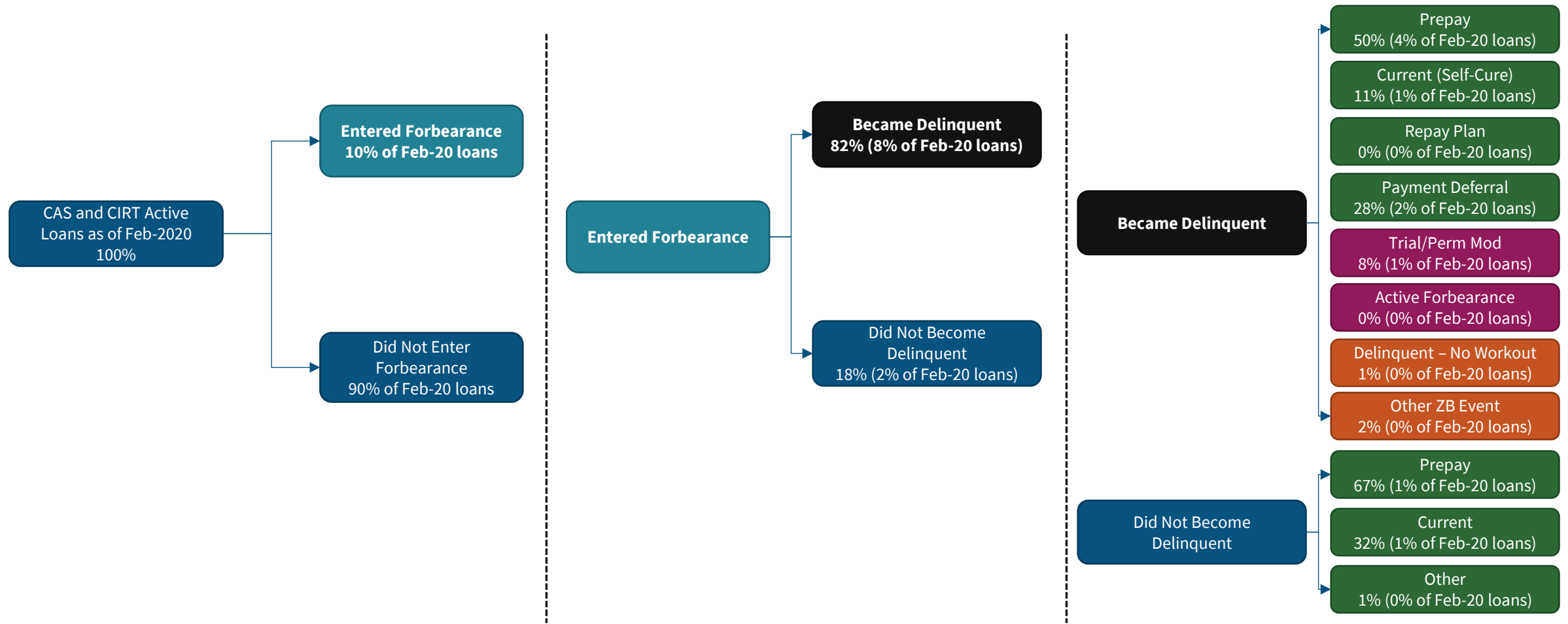
- Expand the ability to evaluate borrowers with thin credit and no credit scores.
- Extend the benefits of our positive rent payment history and cash flow assessment enhancements to more borrowers.

Learn more: [singlefamily.fanniemae.com/applications-technology/desktop-underwriter-desktop-originator](https://singlefamily.fanniemae.com/applications-technology/desktop-underwriter-desktop-originator)



# Pandemic-Related Hardships Resolving

Refi wave and strong housing market enabled a significant portion of COVID-affected borrowers to prepay



Source: Fannie Mae. Shows CAS and CIRT combined performance through January 31, 2024. Outcomes only shown for loans active as of Feb 29, 2020. Excludes cancelled CIRT deals, fixed severity CAS deals, and HARP/lender recourse deals. Note: Percentages calculated using loan count



# Investor Resources



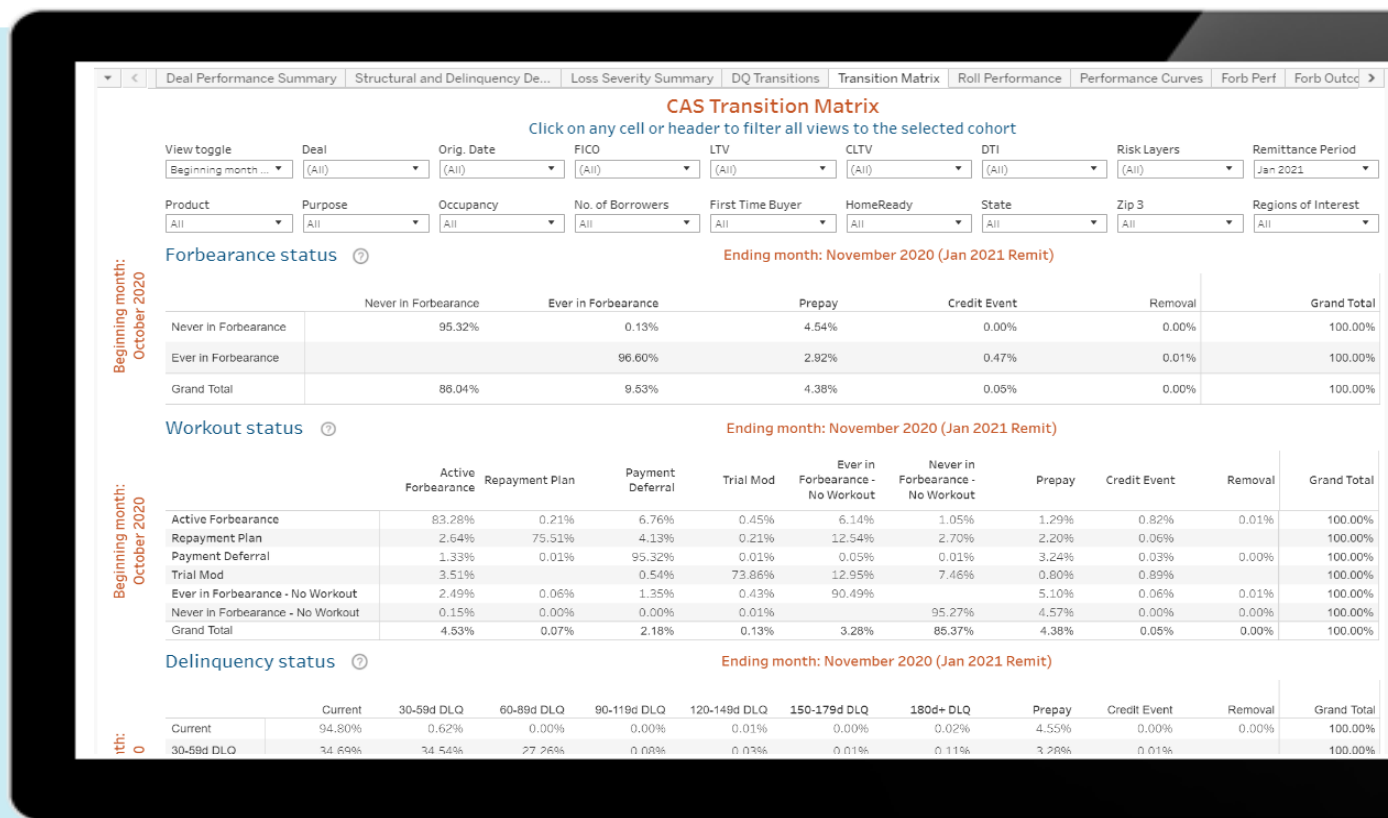
# Data Dynamics®

Our free platform allows investors to gain insights into historical loan performance trends, issuance profiles, and monthly performance – exclusively for Fannie Mae’s CAS and CIRT programs.

The tool is continuously enhanced based on investor feedback and new disclosures.

## Enhancements include:

- **CRT Transition Matrix:** Access three matrices to analyze month-over-month transitions in Forbearance, Workout, and Delinquency status for loans that are referenced in our CAS transactions.
- **Payment Forbearance Dashboard:** View performance on the active population of loans in forbearance and analyze historical loan cohorts that were ever in forbearance for CAS.
- **CAS Structural and Delinquency Test Monitor:** View the monthly status of CAS deal-level credit enhancement and delinquency tests.



**CAS Transition Matrix**  
Click on any cell or header to filter all views to the selected cohort

View toggle: Beginning month: (All) Orig. Date: (All) FICO: (All) LTV: (All) CLTV: (All) DTI: (All) Risk Layers: (All) Remittance Period: Jan 2021

Product: All Purpose: All Occupancy: All No. of Borrowers: All First Time Buyer: All HomeReady: All State: All Zip 3: All Regions of Interest: All

**Forbearance status** Ending month: November 2020 (Jan 2021 Remit)

	Never in Forbearance	Ever in Forbearance	Prepay	Credit Event	Removal	Grand Total
Beginning month: October 2020						
Never in Forbearance	95.32%	0.13%	4.54%	0.00%	0.00%	100.00%
Ever in Forbearance		96.60%	2.92%	0.47%	0.01%	100.00%
Grand Total	96.04%	9.53%	4.38%	0.05%	0.00%	100.00%

**Workout status** Ending month: November 2020 (Jan 2021 Remit)

	Active Forbearance	Repayment Plan	Payment Deferral	Trial Mod	Ever in Forbearance - No Workout	Never in Forbearance - No Workout	Prepay	Credit Event	Removal	Grand Total
Beginning month: October 2020										
Active Forbearance	83.28%	0.21%	6.76%	0.45%	6.14%	1.05%	1.29%	0.82%	0.01%	100.00%
Repayment Plan	2.64%	75.51%	4.13%	0.21%	12.54%	2.70%	2.20%	0.06%		100.00%
Payment Deferral	1.33%	0.01%	95.32%	0.01%	0.05%	0.01%	3.24%	0.03%	0.00%	100.00%
Trial Mod	3.51%		0.54%	73.86%	12.95%	7.46%	0.80%	0.89%		100.00%
Ever in Forbearance - No Workout	2.49%	0.06%	1.35%	0.43%	90.49%		5.10%	0.06%	0.01%	100.00%
Never in Forbearance - No Workout	0.15%	0.00%	0.00%	0.01%		95.27%	4.57%	0.00%	0.00%	100.00%
Grand Total	4.53%	0.07%	2.18%	0.13%	3.28%	85.37%	4.38%	0.05%	0.00%	100.00%

**Delinquency status** Ending month: November 2020 (Jan 2021 Remit)

	Current	30-59d DLQ	60-89d DLQ	90-119d DLQ	120-149d DLQ	150-179d DLQ	180d+ DLQ	Prepay	Credit Event	Removal	Grand Total
Beginning month: October 2020											
Current	94.80%	0.62%	0.00%	0.00%	0.01%	0.00%	0.02%	4.55%	0.00%	0.00%	100.00%
30-59d DLQ	14.69%	14.54%	27.26%	0.00%	0.03%	0.01%	0.11%	3.26%	0.01%		100.00%

Access today at <https://datadynamics.fanniemae.com>



# CRT Reporting on Workout Options

CRT Disclosure Data Element	Payment Forbearance	Reinstatement	Repayment Plan	Payment Deferral	Flex Modification
Borrower Assistance Plan	F	Not Applicable or No Workout Plan	R	Not Applicable or No Workout Plan	During modification trial period, T; when modification becomes permanent, Not Applicable or No Workout Plan
Alternative Delinquency Resolution	Not Applicable	Not Applicable	Not Applicable	Payment deferral = P, COVID-19 payment deferral = C, or natural disaster payment deferral = D	Not Applicable
Alternative Delinquency Resolution Count	Null	Null	Null	Greater than zero	Null
Total Deferral Amount	Null	Null	Null	Greater than zero	Null
Modification Flag	N	N	N	N	Y
Non-interest bearing UPB	Null	Null	Null	Greater than zero	May be greater than zero
Current Interest Rate	No change	No change	No change	No change	May be lower than Original Interest Rate
Current Period/Cumulative Modification Loss Amount	Null	Null	Null	Null	May be greater than zero
Delinquency Status	Continues to increase to the extent that the full contractual payment is not made.	Returns to current in the period that the loan is reinstated (single lump sum payment of past due amounts).	Continues to decrease as borrower pays off past due amounts and will return to current at the end of plan.	Returns to current in the period that a borrower enters a payment deferral plan.	Returns to current in the period that the modification becomes permanent.
Current Actual UPB	Does not decline while in forbearance if borrower makes no payments	Single decrease when past due amounts are repaid	Gradual decrease as past due amounts are repaid over time	Current Actual UPB may increase to reflect any deferred amounts other than the missed principal portion of deferred payments	May increase in the amount of capitalized arrearages
Remaining Months to Legal Maturity	Continues to decline according to amortization schedule	Continues to decline according to amortization schedule	Continues to decline according to amortization schedule	Continues to decline according to amortization schedule	One-time increase to reflect loan maturity extension
Maturity Date	No change	No change	No change	No change	Extended
Principal Forgiveness Amount	Null	Null	Null	Null	Null



# CRT Loan-level Data Disclosure

- Fannie Mae makes over 100 loan-level disclosure fields available to support CRT analysis
- Fields include key loan risk factors, loan term characteristics, collateral characteristics, servicing data, and disposition data, such as (not limited to):

Loan and Borrower Characteristics	Property Type	HomeReady Program Indicator, and First Time Home Buyer Indicator	High Loan-to-Value Refinance Indicator
	Number of Borrowers	Original Debt to Income Ratio	Borrower FICO and Co-Borrower FICO scores (at origination, deal issuance, and ongoing)
Collateral Characteristics	Number of Units	Original Loan to Value Ratio (LTV) and Combined LTV Ratio (CLTV)	Three-digit zip code
	Occupancy Type	Metropolitan Statistical Area	Property Inspection Waiver Flag <sup>(1)</sup>
Servicing Data	Servicer Name	Loan Payment History	Reason and Date as to why a loan balance went to zero
	Mortgage Insurance Cancellation Indicator	Modification Flag	Current Loan Delinquency Status
Loan Term Characteristics	Original and Current Interest Rate	Original Loan Term	Loan Age
	Original and Current UPB	Origination Date	Maturity Date
Disposition Data	Last Paid Installment Date	Foreclosure Date	Detailed Proceed Fields
	Original and Current List Price and Date	Disposition Date	Detailed Expense Fields

1. Available beginning with CAS 2017-C07 and CIRT 2017-7. All prior deals will reflect null values.



# CAS Resources for EU & UK investors

Fannie Mae's webpage is designed to help European Union and United Kingdom institutional investors and those managing funds subject to EU/UK regulations.

- Information and resources that Fannie Mae already makes publicly available for all investors is organized in an easy-to-navigate format according to applicable sections of EU Regulation 2017/2402
- In response to European Union (EU) additional guidance published in October 2022, beginning on May 25, 2023, Fannie Mae started providing monthly loan-level and deal-level data in ESMA Annex 2 and Annex 12 template formats directly in Data Dynamics®
  - The data will be provided on a go-forward basis for all benchmark CAS deals beginning with CAS 2019-R01\*

Visit [www.fanniemae.com/eu-resources](https://www.fanniemae.com/eu-resources) and [www.fanniemae.com/uk-resources](https://www.fanniemae.com/uk-resources) for more information

Article 5 – Due Diligence Requirements



Article 6 – Risk Retention Requirements



Article 7 – Transparency Requirements



Article 8 – Ban on Re-securitizations



Article 9 – Criteria for credit-granting



\*For CAS 2019-HRP1, one data element on Annex 2, Original Obligor Identifier, has not been provided due to borrower privacy concerns.



# Appendix

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# DU Model Updates: 2017-2020

2017

## July 2017: DU 10.1

- Enabled loans with DTI ratios above 45% (up to 50%) to rely on DU's comprehensive risk assessment. Removed DU model overlays with set maximum LTV ratio and minimum reserves requirements for those loans.
- *May result in additional loans receiving Approve/Eligible in DU.*

2018

## March 2018: DU 10.2

- Revised DU's risk assessment to limit risk layering.
- *May yield a reduction in Approve/Eligible recommendation on loans that have multiple higher-risk characteristics.*

## December 2018: DU 10.3

- Enhanced DU's management of multiple risk layers. Six months of reserves for cash-out refinances with DTI over 45% to address increase in high DTI acquisitions.
- *May yield a reduction in loan case files most notably for loans with multiple risk factors.*

2019

## July 2019: DU 10.3

- *Certain new loan casefiles submitted to DU will receive an Ineligible recommendation when multiple high-risk factors are present.*
- Updated the DU eligibility assessment to better align the mix of business delivered to us with the composition of business in the overall market.

2020

## April 2020: DU 10.3

- In response to changing market conditions and economic uncertainty surrounding COVID 19 Pandemic and support sustainable homeownership we revised DU's risk and eligibility assessments to result in *modest reduction of loan casefiles with high-risk factors receiving an Approve/Eligible recommendation.*

Learn more: [singlefamily.fanniemae.com/applications-technology/desktop-underwriter-desktop-originator](https://singlefamily.fanniemae.com/applications-technology/desktop-underwriter-desktop-originator)



# CAS REMIC: Commodity Futures Trading Commission (CFTC) Considerations

**CAS REMIC structure allows transaction to be created in a manner that does not involve swaps**



Transaction documents are traditional commercial transactions



None of the transaction documents will utilize an International Swaps and Derivatives Association (ISDA) or similar agreement



The substance of all transaction documents will be commercial (securities and capital contribution) agreements



Outside counsel to Fannie Mae and the Issuer will deliver an opinion letter that the transaction does not involve any swaps



Since the transaction does not involve any swaps, the Issuer is not considered a commodity pool and, therefore, does not need to register with the CFTC



# CAS: Summary of Key Tax, Legal and Regulatory Considerations

Topic	CAS Direct Debt	CAS REMIC
<b>Issuer</b>	Fannie Mae	CAS REMIC Trust, a wholly-owned, non-consolidated subsidiary of Fannie Mae. Fannie Mae is sponsor and depositor.
<b>Registration</b>	Exempt under Fannie Mae Charter Act.	Exempt under Rule 144A.
<b>Offering Restrictions</b>	Within the U.S.: Notes offered only to “Qualified Institutional Buyers” as defined in Rule 144A under the Securities Act.	Within the U.S.: Notes offered only to “Qualified Institutional Buyers” as defined in Rule 144A under the Securities Act.
<b>Regulation S</b>	Outside the U.S.: Notes offered only to non-U.S. persons pursuant to Regulation S of the Securities Act.	Outside the U.S.: Notes offered only to non-U.S. persons pursuant to Regulation S of the Securities Act.
<b>Sales to REITs</b>	CAS are deemed to be government securities for purposes of the REIT tax tests, so are qualifying assets for REITs, but generally are less attractive because they do not produce qualifying real property income for REITs.	A REMIC security will be a qualified REIT asset and will produce qualified income for REITs.
<b>Tax Treatment</b>	M1 and M2 are debt for tax. B1 is a contingent notional principal contract for tax.	All tranches are treated as debt for tax.

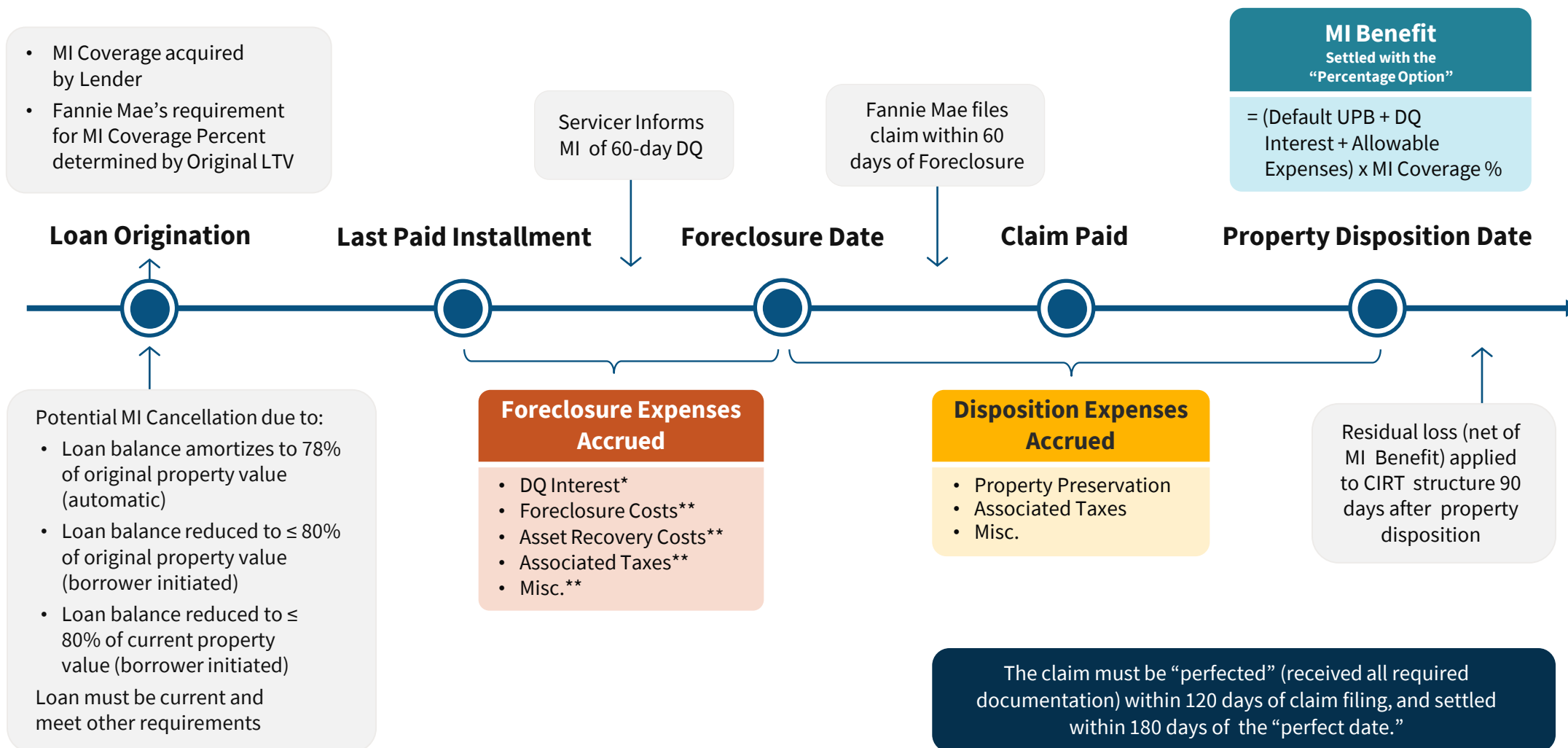


# CAS: Summary of Key Tax, Legal and Regulatory Considerations (cont.)

Topic	CAS Direct Debt	CAS REMIC
<b>Sale of B Piece</b>	B piece is generally subject to 30% withholding tax if sold to non-U.S. investors.	B piece is treated as debt-for-tax and therefore NOT subject to withholding tax if sold to overseas investors.
<b>CFTC/Commodity Pool Operator (CPO)</b>	Registration as a CPO is not required.	Registration as a CPO is not required.
<b>Investment Company Act of 1940</b>	Fannie Mae, as an instrumentality or ‘government entity’ of the United States, is exempt from registration pursuant to Section 2(b) of the Act.	As an entity wholly owned by Fannie Mae, the SPV is exempt from registration pursuant to Section 2(b) of the Act.
<b>Volcker Rule</b>	Exempt from the 1940 Act since Fannie Mae is the issuer. Securities are exempt from Volcker Rule since they are not issued in reliance upon an exemption under Section 3(c)(1) or 3(c)(7) of the 1940 Act.	The SPV will be exempt from the Act pursuant to Section 2(b). CAS REMIC notes therefore will not constitute interests in a “covered fund” for purposes of the Volcker Rule since the Volcker Rule applies only to securities issued in reliance on Sections 3(c)(1) or 3(c)(7) of the Act.
<b>ERISA Eligibility</b>	Non-rated and below investment grade rated notes are ERISA eligible because they represent either (i) debt for tax or (ii) equity in an operating company (Fannie Mae).	The M1 and M2 notes will be ERISA-eligible because they are both able to meet certain criteria to be characterized as debt-for-tax independent of the REMIC election. In 2023 issuances, the B1 bond is not expected to be ERISA-eligible.



# How MI Works: Typical Loan



\* The covered loss may be curtailed based upon eligibility under MI policy

\*\* The covered loss may be estimated under MI factor



# How MI Works

## Disaster Event / Physical Damage

Under MI Master policies, an MI claim can be denied if there is material physical damage to the property that was the principal cause of default. The damage could be the result of natural disaster (e.g., flood, earthquake, hurricane, etc.) or otherwise (e.g., defects in construction, fire, environmental impairment).

Physical damage means any injury, physical damage or impairment to a property that the MI reasonably estimates to be in excess of the greater of \$5,000 or 2% of the original property value, whether caused by accident, natural disaster or otherwise.

If physical damage is the principal cause of default and manifested itself after the MI issued its commitment, the MI can deny the claim.

### Physical damage is deemed to be the principal cause of default if:

- 1) the property has not been restored; and
- 2) there was no hazard insurance or insufficient hazard insurance to restore the property; or
- 3) there was sufficient hazard insurance, but a claim was not filed, or a claim was filed but the proceeds have not been received, or the proceeds have been received but not applied to restore the property.

If the MI provides notification of its intent to deny the claim and we promptly notify the MI of our intent to restore the property and actually restore it within 180 days (or up to 1 year if certain requirements are met), the MI cannot deny the claim.

If physical damage is not the principal cause of default, the MI may curtail (but not deny) the claim in accordance with policy parameters that depend on whether the MI can reasonably estimate the cost of restoration.

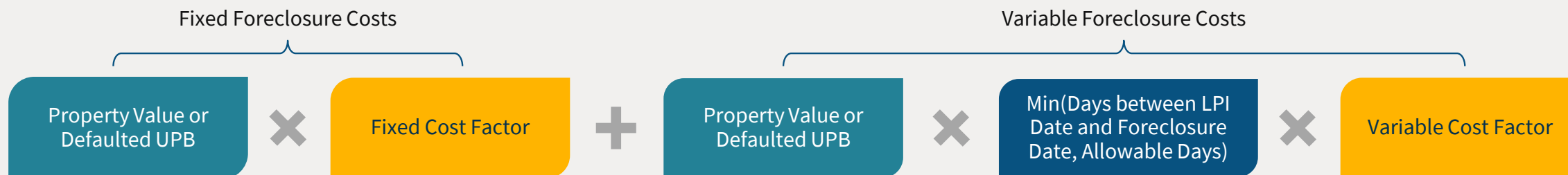


# MI Factor

Streamline calculation of MI claims, accelerate payment, and reduce uncertainty

- Investors in CAS and CIRT transactions can now expect timelier, more predictable settlement of MI claims with no expected material impact on aggregate proceeds received
- MI Factor is used to determine only the foreclosure/property preservation cost component of an MI claim, which typically represents **approximately 5%** of the claim but requires the most work for all parties involved
  - Current practice of using actual foreclosure/property preservation costs to determine a claim amount is replaced by a calculation that applies a numerical factor to the property value or default UPB (shown below)<sup>1</sup>
- Factor applied to a given loan determined by using a grid that allows consideration of relevant loan characteristics that impact foreclosure/property preservation costs
- Factor was developed by back-testing against 13 years of claim data covering a number of economic environments. We found costs can be predicted with great accuracy using four loan attributes: disposition types, geography clusters, statistically-derived home value buckets, and property type buckets
- To capture changing market dynamics, Fannie Mae will evaluate the selection of loan attributes and determination of factors annually

## MI Factor Calculation of Foreclosure/Property Preservation Costs



<sup>1</sup>Property value is used for Short Sales whereas default UPB is used for REO and Third-Party Sales claims.



# Comparing MI Options

Key Feature	BPMI	LPMI
<b>Buyer of MI</b>	Lender	Lender
<b>MI Premium Paid By</b>	Borrower	Lender
<b>Can borrower lower mortgage payment through MI cancellation?</b>	Yes	No
<b>MI Cancellation Provision</b>	<ul style="list-style-type: none"> <li>• Must be automatically canceled, e.g., when LTV ratio scheduled to reach 78%</li> <li>• May be canceled by borrower based upon paydown of loan or property appreciation</li> </ul>	None – coverage exists for life of loan
<b>Length / Term of Coverage</b>	Terminates upon cancellation (see MI cancellation provisions above)	Life of Loan
<b>Policy</b>	Approved MI companies, selected by borrower/lender	Approved MI Companies, selected by lender
<b>Origination Guidelines</b>	Fannie Mae and MI guidelines	Fannie Mae and MI guidelines
<b>Loan Quality Reviews</b>	Fannie Mae and MI guidelines	Fannie Mae and MI guidelines
<b>Claim Filing</b>	Fannie Mae files claims	Fannie Mae files claims



# Workout Hierarchy

Fannie Mae offers a suite of workout options to manage delinquent loans and avoid foreclosure.

Retention Options	Forbearance Plan	Agreement between servicer and homeowner to temporarily pause or reduce monthly mortgage payments.
	Reinstatement	Pay the total missed amount all at once.
	Repayment Plan	Repayment of the missed amounts over a fixed period (e.g., 6 months) in addition to their monthly mortgage payment.
	Payment Deferral	Missed payments deferred into a non-interest-bearing balance due at the end of the loan term (or earlier if the home is sold, property is transferred, or the loan is refinanced or otherwise paid off).
	Fannie Mae Flex Modification	Change to the terms of the existing loan: offers payment reduction through a potential combination of interest rate reduction, term extension, and possible principal forbearance. <b>Only interest rate reduction/principal forbearance resulting from a Flex Modification may entail modification losses.</b>
Liquidation Options	Credit Events	When home retention is not a viable option, liquidation options include short sale, or Mortgage Release™ (Deed-in-Lieu of Foreclosure); or the loan is liquidated after the servicer refers the mortgage loan to foreclosure in accordance with applicable law.

\*CAS: Payment deferrals are currently not treated as modification events in the structure.

\*CIRT: Beginning with CIRT 2023-1, Payment Deferral is a covered modification expense in the CIRT structure. Losses associated with payment deferrals are a covered modification loss in the CIRT structure.



# Modification Losses

Fannie Mae Flex Modification Payment Reduction Levers	Modification	Borrower Impact	Loss to Investor
	Interest Rate Reduction	Reduces monthly interest rate borrower pays on loan obligation	Losses passed through based on the difference between the modified and original note rate paid on the outstanding loan balance
	Principal Forbearance	Deferral of a portion of the unpaid principal balance as part of a loan modification ( <b>not as part of a Payment Deferral</b> ) until the loan's maturity date or early payoff of the mortgage loan	Loss reflects foregone interest on non-interest bearing portion of UPB. Recognized in Non-interest Bearing UPB field in monthly reporting <sup>^</sup>
	Term Extension	Loan term is extended to reduce borrower monthly payments	No loss to investor

Modification losses are passed through to noteholders on a monthly basis once a permanent modification takes effect. No losses are incurred during a modification trial period (typically 3 months).

<sup>^</sup>Principal forbore as part of a Payment Deferral is recognized in Total Deferral Amount field in monthly reporting and does not constitute a modification loss



# Temporary Interest Rate Buydowns

Mortgage loans acquired by Fannie Mae may be subject to a temporary interest rate buydown, which is used to reduce a borrower's monthly payment through a temporary reduction in the interest rate. They can be classified as "Moderate" or "Significant".

- **Moderate (SFC 9) – A Moderate buydown is less than or equal to 2% and for less than or equal to 24 months**
- **Significant (SFC 14) - A Significant buydown is greater than 2% and/or for greater than 24 months**

Temporary Interest Rate Buydown Loans are underwritten without consideration of the bought-down rate, and the DTI reported in our disclosures reflects such rate.

CRT disclosures will include a one-time loan level file posted on Data Dynamics with a buydown indicator flag denoting SFC 9 / 14 or not applicable.

## Example from CAS 2024-R02 G1 Offering Memorandum:

Category	Loan Count	Unpaid Principal Balance (\$) <sup>(3)</sup>	Unpaid Principal Balance (%) <sup>(3)</sup>	W.A. Mortgage Rate (%)	W.A. Original Credit Score	W.A. Original LTV Ratio (%)	W.A. Debt-to-Income Ratio (%)	W.A. First Time Homebuyer Ratio (%)	Debt-to-Income Ratio > 45% (%)
Moderate - Less than or equal to 1% <sup>(1)</sup>	518	195,018,263	1.05	6.44	760	76.5	37.2	34.3	23.5
Moderate - Less than or equal to 2% <sup>(2)</sup>	884	392,498,745	2.11	6.44	762	76.5	38.9	37.2	28.6
Significant	126	57,718,378	0.31	6.33	761	75.7	38.0	37.9	27.4
<b>Subtotal or Weighted Average</b>	<b>1,528</b>	<b>645,235,386</b>	<b>3.47</b>	<b>6.43</b>	<b>761</b>	<b>76.4</b>	<b>38.3</b>	<b>36.4</b>	<b>27.0</b>
No Rate Buydown	54,157	17,962,890,790	96.53	6.42	760	75.5	37.1	31.8	21.7
<b>Reference Pool Total or Weighted Average</b>	<b>55,685</b>	<b>18,608,126,176</b>	<b>100.00</b>	<b>6.42</b>	<b>760</b>	<b>75.6</b>	<b>37.1</b>	<b>31.9</b>	<b>21.9</b>

- (1) An interest rate buydown in which the interest rate is bought down by 1% or less and for a period of 12 months or less.
- (2) An interest rate buydown in which the interest rate is bought down by greater than 1% and less than or equal to 2% and for a period of greater than 12 months and less than or equal to 24 months.
- (3) Amounts may not add up to the totals shown due to rounding.

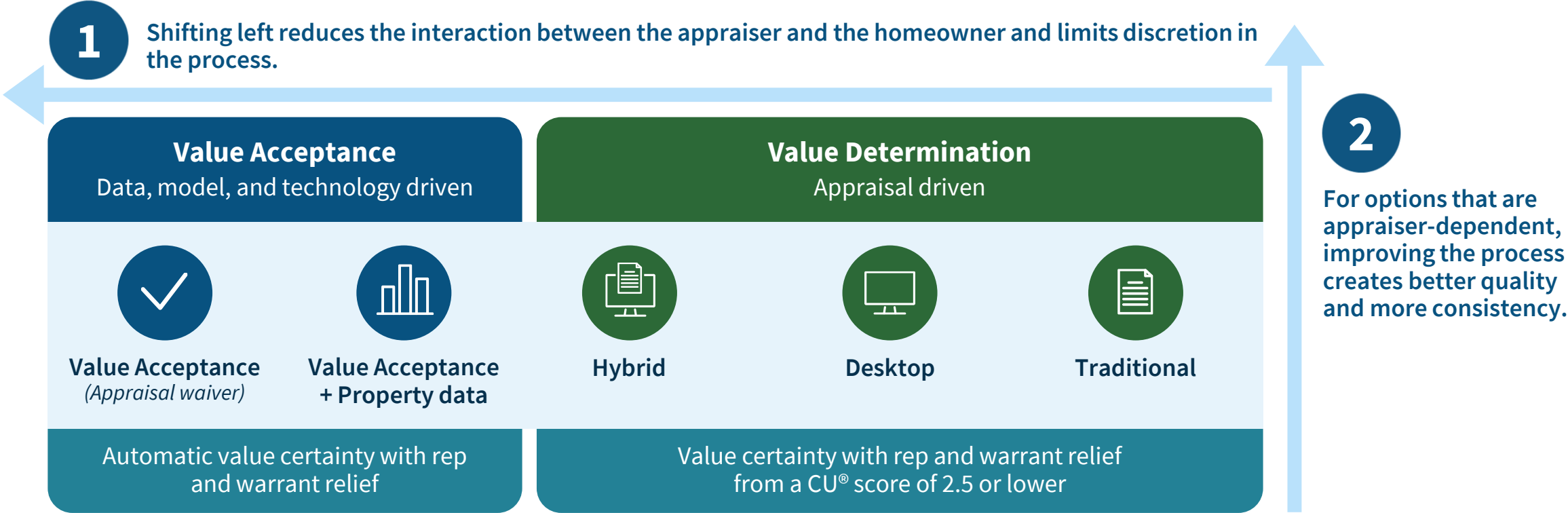
See Temporary Interest Rate Buydowns in the [Selling Guide](#) for additional details.



# The Modern Valuation Spectrum

Leveraging data, models, and technology enhances valuation accuracy, lowers borrower costs, and mitigates appraisal bias.

## VALUATION MODERNIZATION HAS TWO KEY OBJECTIVES:



By shifting left in the spectrum and increasing the quality of appraiser-driven products, we will decrease costs for borrowers, alleviate appraiser capacity, reduce the risk of appraisal bias, and more effectively align products to transactional risk.



# Value Acceptance (Appraisal Waiver)

Fannie Mae uses data, modeling and a technology-driven approach, combining the capabilities of DU and CU, to offer value acceptance (appraisal waivers) for certain lower-risk loans. The majority of transactions continue to require an appraisal, especially in a purchase money market.

## STEP 01: DU eligibility exclusion checks

Once a loan is submitted by the lender to DU, **DU checks for initial eligibility** for value acceptance. For example, **generally the subject property must have a prior appraisal in CU** and it must meet an LTV threshold.

## STEP 02: CU eligibility exclusion checks

**Then, CU checks the eligibility of the prior appraisal; not all are acceptable.** For example, if the prior appraisal had overvaluation or property eligibility flags, it is ineligible for value acceptance.

If the prior appraisal is acceptable, CU **assesses the reasonableness of the lender-provided property value** using the prior appraised value and Fannie Mae's Home Price Index. In certain circumstances when there is no prior appraised value, we will use our proprietary AVM.

## STEP 03: Value acceptance and Value Acceptance plus Property Data

If the **lender-provided property value is reasonably supported**, **value acceptance is offered** to the lender through DU.

Sometimes when there is no qualified prior appraisal observation, we may still have high confidence in our value benchmark. In this instance, **we may offer value acceptance contingent upon the lender obtaining property data** ("value acceptance plus property data" or "VA + PD").



# Value Acceptance (Appraisal Waiver) Eligibility

## Transactions considered for a value acceptance offer:\*

- Loan casefiles that receive an Approve/Eligible recommendation
- One-unit properties, including condominiums
- **Limited cash-out refinance transactions:** principal residences and second homes up to 90% LTV/CLTV. Investment properties up to 75% LTV/CLTV
- **Cash-out refinance transactions:** principal residences up to 70% LTV/CLTV. Second homes and investment properties up to 60% LTV/CLTV
- **Purchase transactions:** principal residences and second homes up to 80% LTV/CLTV
- Properties in high-needs rural locations, as identified by FHFA

\*The majority of transactions will not receive a value acceptance offer; they will require use of one of the value determination methods involving a qualified residential appraiser as described earlier.

## The following are *not eligible* for a value acceptance offer:

- Texas 50(a)6 loans
- When the lender has any reason to believe an appraisal is warranted
- Construction and construction-to-permanent loans
- Two-to four-unit properties, cooperative units, and manufactured homes
- Loan casefiles in which the value of the subject property provided to DU is \$1,000,000 or greater
- HomeStyle® mortgage products (Renovation and Energy)
- Leasehold properties
- Community land trust homes or other properties with resale restrictions
- DU loan casefiles that receive an ineligible recommendation
- Loans for which the mortgage insurance provider requires an appraisal
- Loans for which rental income from the subject property is used to qualify

Visit [singlefamily.fanniemae.com/originating-underwriting/appraisal-waivers](https://singlefamily.fanniemae.com/originating-underwriting/appraisal-waivers) for more information.



# Contact Us

Information is available for investors and potential investors about Fannie Mae's products, the company's financial performance, and disciplined management of credit risk and interest rate risk.



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