PREPAYMENT MONITORING REPORT

Fourth Quarter 2024

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Introduction

Fannie Mae and Freddie Mac began issuing the Uniform Mortgage-Backed Securities (UMBS) on June 3, 2019.

This quarterly report provides market participants additional transparency into a sample of the data FHFA receives and reviews on a monthly basis. The report focuses on alignment of prepayment rates, which continues to be important to the success of UMBS and to the efficiency and liquidity of the secondary mortgage market.

Ex post monitoring of prepayment rates is part of a broader effort to assure investors that cash flows from UMBS will be similar regardless of which Enterprise is the issuer. This report provides insight into how FHFA monitors the consistency of prepayment rates across cohorts of the Enterprises' TBA-eligible MBS,[1] where a cohort consists of those Enterprise TBA-eligible securities with the same coupon, maturity, and loan-origination year and total combined issuance across the Enterprises exceeds $10

billion. A prepayment on a mortgage loan is the amount of principal paid in advance of the loan's scheduled payments. Full prepayment occurs when a borrower pays off the loan ahead of the scheduled maturity.

Background on UMBS:

Issuance of UMBS through the Enterprises' jointly developed Common Securitization Platform (CSS), fulfilled important elements of FHFA's *2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac*. Forward trading of UMBS began in the "To-Be-Announced" (TBA) market[2], on March 12, 2019 with first settlements of the UMBS trades on June 3, 2019. UMBS is issued without regard to which Enterprise is the issuer and has effectively merged the formerly separate MBS markets. UMBS has broadened and enhanced-liquidity in the secondary market for residential mortgages and reduced costs to taxpayers.[3]

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[1] To avoid double counting, only first-level securitizations are included in the analysis. Second-level securitizations (Megas, Giants, and Supers) are excluded, with the exception of fastest quartile analyses and Table 2 (Quartile Report). For those exceptions, Freddie Mac multi-lender second-level securitizations traded as a single security are included and the related first-level securitizations are excluded to avoid double counting.

[2] The TBA market is a forward market for certain mortgage-backed securities, including those issued by the Enterprises.

[3] See *An Update on the Structure of the Single Security*, May 2015, p.4

Alignment Requirements

On March 5, 2019, FHFA published the *Uniform Mortgage-Backed Security Final Rule* (Final Rule). The Final Rule codified FHFA thresholds with respect to differences between the prepayment rates of corresponding cohorts of each Enterprises' TBA-eligible securities. The Final Rule uses three-month CPRs rather than one-month CPRs, and measures alignment both with respect to entire cohorts and the fastest paying quartile of each cohort. Generally, the Enterprises must report to FHFA differences between Fannie Mae and Freddie Mac prepayment rates when the divergence between three-month CPRs exceeds two percentage points for an entire cohort or five percentage points for the fastest paying quartile of a cohort. For a divergence in three-month CPRs in excess of three percentage points for an entire cohort or eight percentage points in the fastest paying quartile of a cohort, the Enterprises must provide a written report to FHFA on the causes of the divergence and submit a written remediation plan. In most instances, FHFA's UMBS Governance Committee reviews the reports and may recommend remedial actions.

Prepayment Performance Charts and Tables

FHFA uses the charts and data tables in this report to evaluate the alignment of loan attributes for newly issued Enterprise MBS and the prepayment performance of outstanding Enterprise MBS. These charts and tables have been abridged to improve readability by omitting coupons and years with lower volumes of outstanding securities. FHFA monitors similar information for both Enterprises, focusing primarily on coupons, maturities, and loan-origination years that have minimum combined outstanding principal balances in excess of $10 billion and whose origination-years are not more than six calendar years prior to the current calendar year. Footnotes to the relevant charts and tables indicate cohorts that are below the $10 billion threshold.

As mentioned previously, a prepayment on a mortgage loan is the amount of principal paid in advance of the loan's payment schedule. When a loan is prepaid, an MBS investor receives the payment as principal. If the investor paid a premium for the security, the prepayment reduces the investor's yield. Therefore, investors in premium securities look for MBS that are likely to prepay slower than other MBS.

For further descriptions of how FHFA uses this information, see *Update on the Single Security Initiative and Common Securitization Platform,* **December 2017**.

Prepayments between the Enterprises remain reasonably aligned quarter over quarter. Despite record low rates and refinance activity post UMBS implementation, the consistency in prepayment performance has contributed to continued efficiency and liquidity in the UMBS market. FHFA continues to monitor any cohort level pooling divergences between the Enterprises and its potential impact on prepay speeds.

Charts

Charts 1 and 2 illustrate alignment of entire cohorts, using one-month CPR. FHFA uses the one-month CPR in these charts to assess the alignment at the cohort level for past origination cycles and the general trend of alignment across loan-origination years on a more granular basis than the three-month CPR would afford.

Chart 1 compares one-month CPR for both Enterprises TBA-eligible 30-year securities for the current year and the prior six years.

Chart 2 illustrates the comparison of pool loan-origination years for a given TBA-eligible MBS coupon. Chart 2 shows December 2024 one-month prepayment rates for entire cohorts each Enterprise's 30-year MBS for coupons with combined issuance volume outstanding in excess of $10 billion (1.5%, 2%, 2.5%, 3%, 3.5%, 4%, 4.5%, 5%, 5.5%, 6%, 6.5%, and 7%) and the six loan-origination years prior to the current calendar year.

Charts 3a through 3m illustrate alignment with respect to the fastest paying quartiles of each cohort. FHFA uses these charts to assess alignment with respect to the fastest paying quartiles of cohorts of the Enterprises' TBA-eligible MBS on a historical basis. Chart 3a illustrates alignment in one-month prepayment rates across the Enterprises for recent coupons with issuance greater than $10 billion. For each coupon in Chart 3a, the illustrated one-month prepayment rates are calculated across the fastest paying quartile at a given point in time. Charts 3b through 3m illustrate the degree of three-month prepayment rate alignment of the fastest paying quartile for each coupon-year cohort.

Chart 4 illustrates the spread between the weighted average loan rates (WACs) in mortgage pools to the coupon on the MBS backed by that pool for 30-year MBS issued by the Enterprises during the quarter. FHFA monitors this spread because differences in the spread between the Enterprises can lead to differences in prepayment rates as interest rates change. Securities with higher spreads are likely to experience faster prepayment rates as borrowers take advantage of opportunities to refinance due to their higher loan rates.

Chart 1: One-month CPR Comparison for 30-Year, for All TBA-Eligible MBS, All Coupons
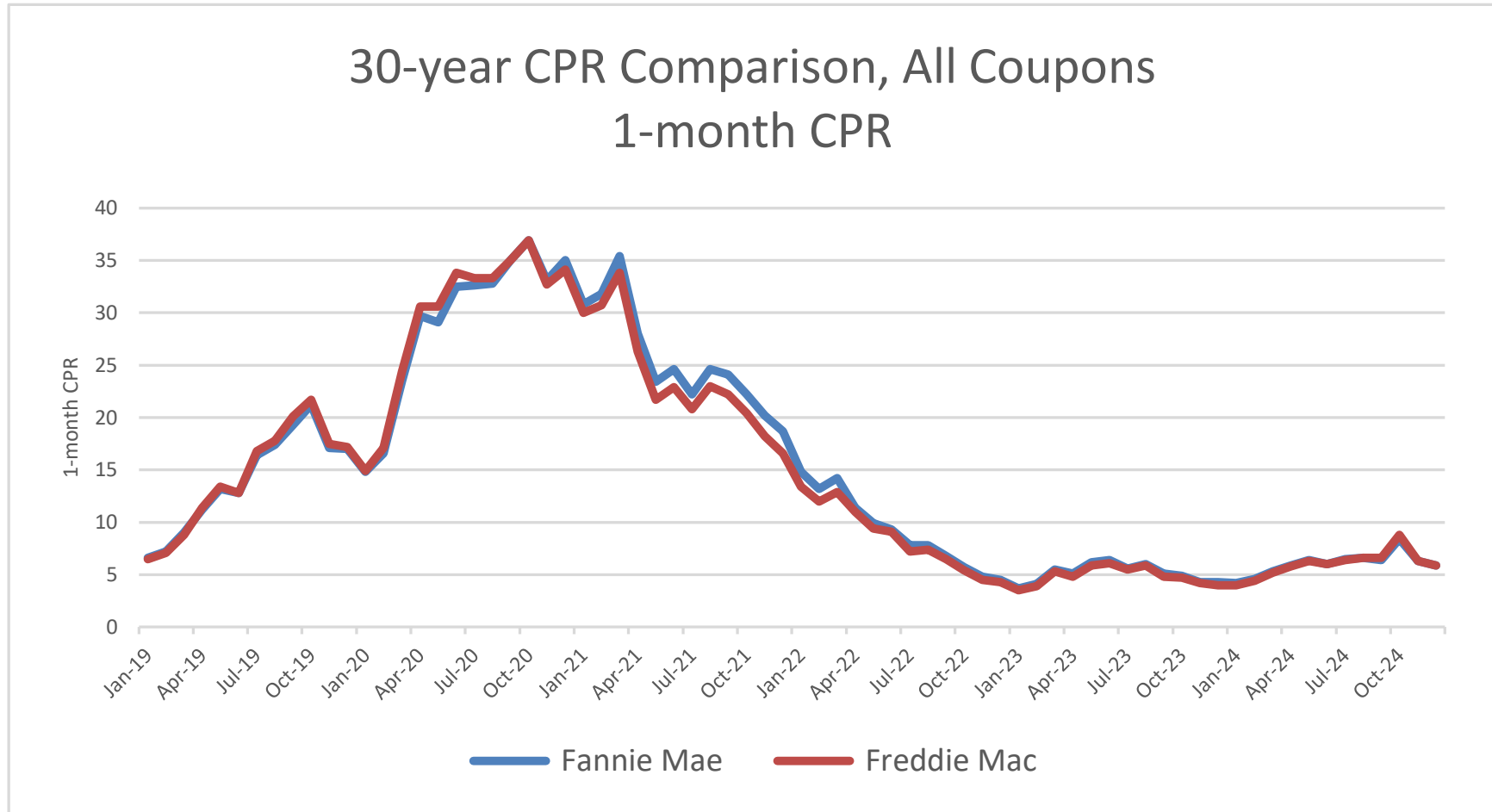
Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no one-month CPR information.

Chart 2: December 2024 One-month CPR on All 30-year, TBA-eligible MBS by Coupon and Loan-Origination Year*
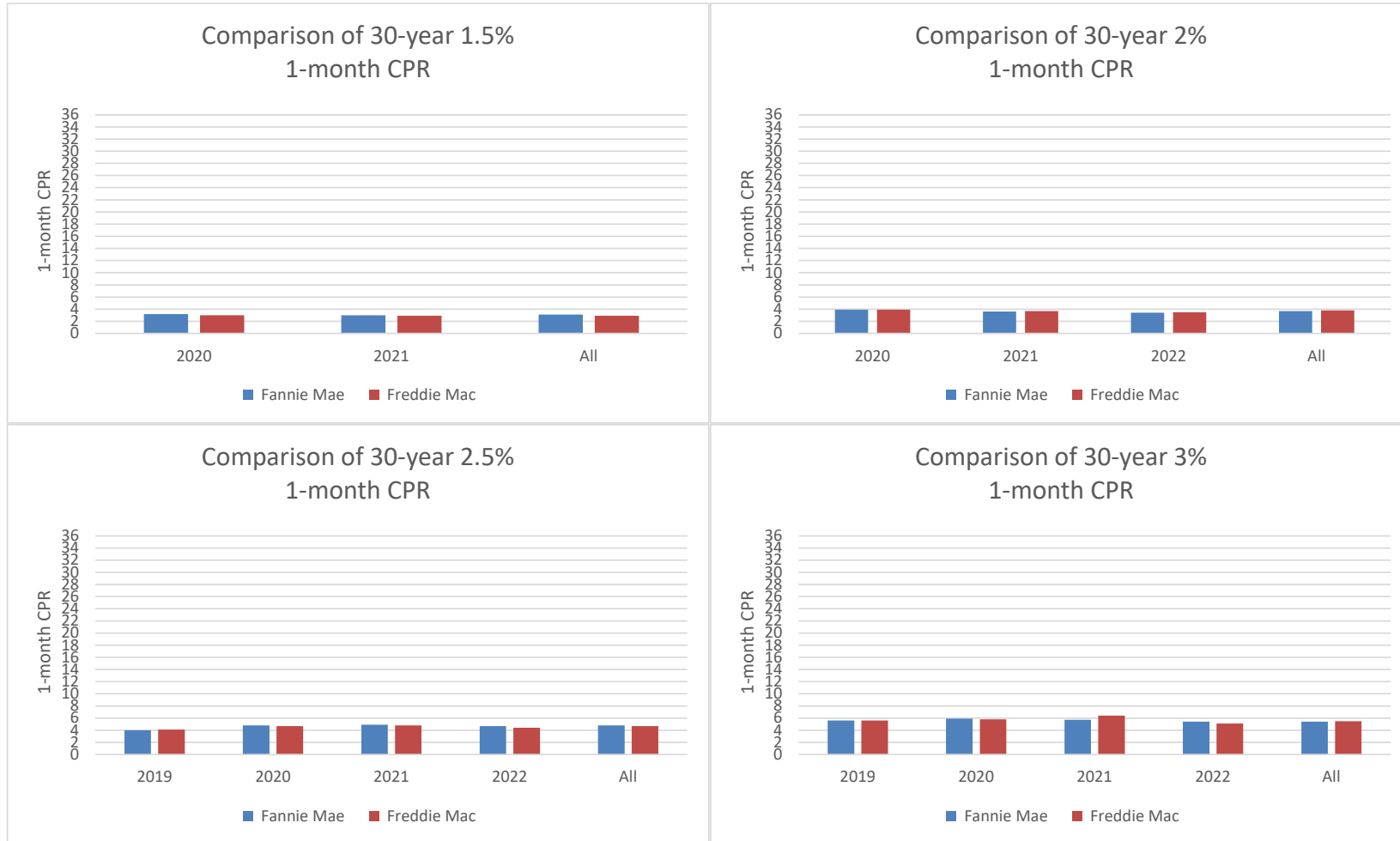
* The 1.5 percent coupon cohorts for 2019, 2022, 2023, and 2024; the 2 percent coupon cohorts for 2019, 2023, and 2024; the 2.5 percent coupon cohorts for 2023 and 2024; and the 3 percent coupon cohorts for 2023 and 2024, are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no one-month CPR information.

Chart 2: December 2024 One-month CPR on All 30-year, TBA-eligible MBS by Coupon and Loan-Origination Year*

* The 3.5 percent coupon cohorts for 2021, 2023, and 2024; the 4 percent coupon cohorts for 2020, 2021, 2023, and 2024; the 4.5 percent coupon cohorts for 2020 and 2021; and the 5 percent coupon cohorts for 2019, 2020, and 2021, are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no one-month CPR information.

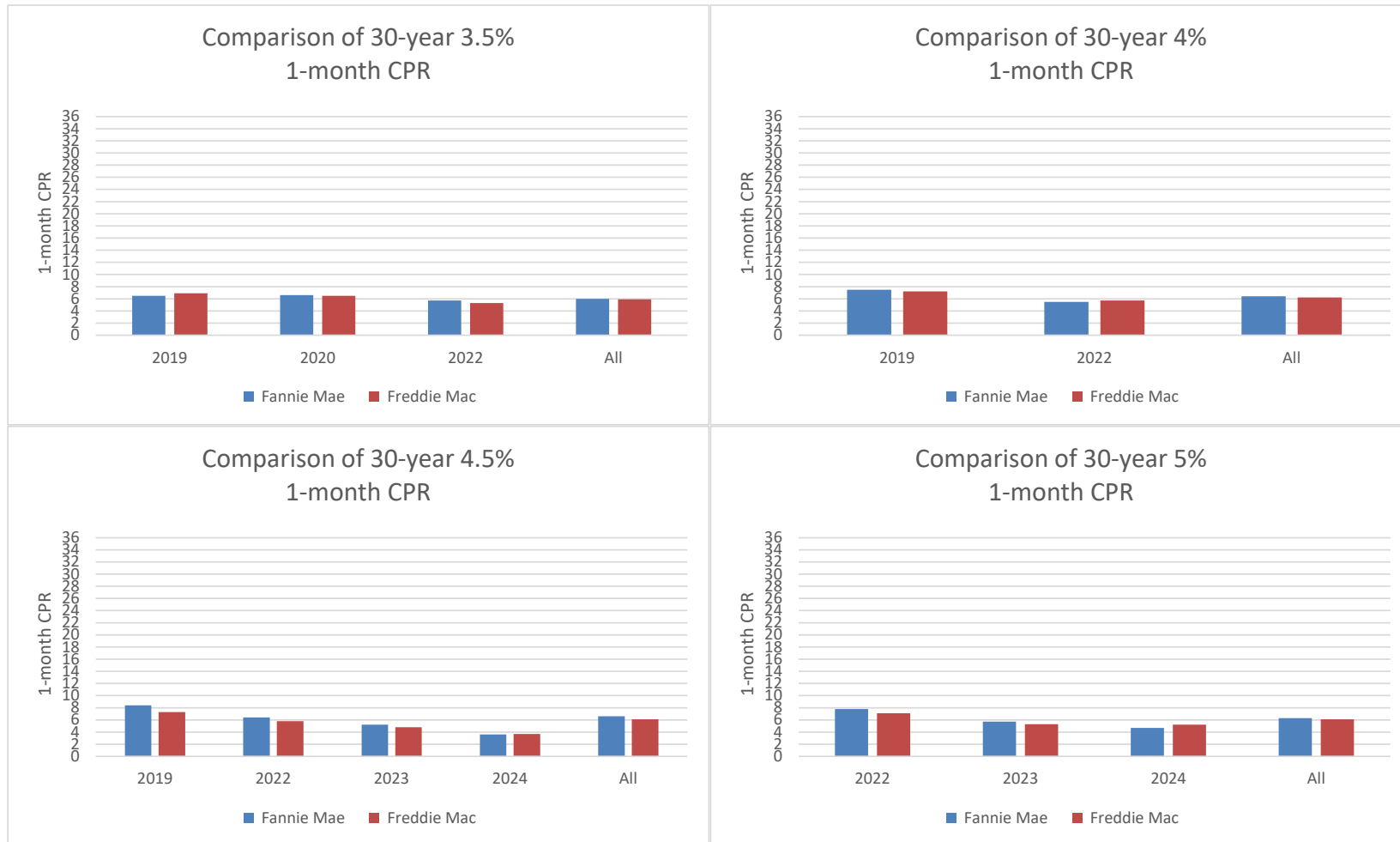**Chart 2: December 2024 One-month CPR on All 30-year, TBA-eligible MBS by Coupon and Loan-Origination Year***

Comparison of 30-year 5.5% 1-month CPR

Comparison of 30-year 6% 1-month CPR

Comparison of 30-year 6.5% 1-month CPR

Comparison of 30-year 7% 1-month CPR
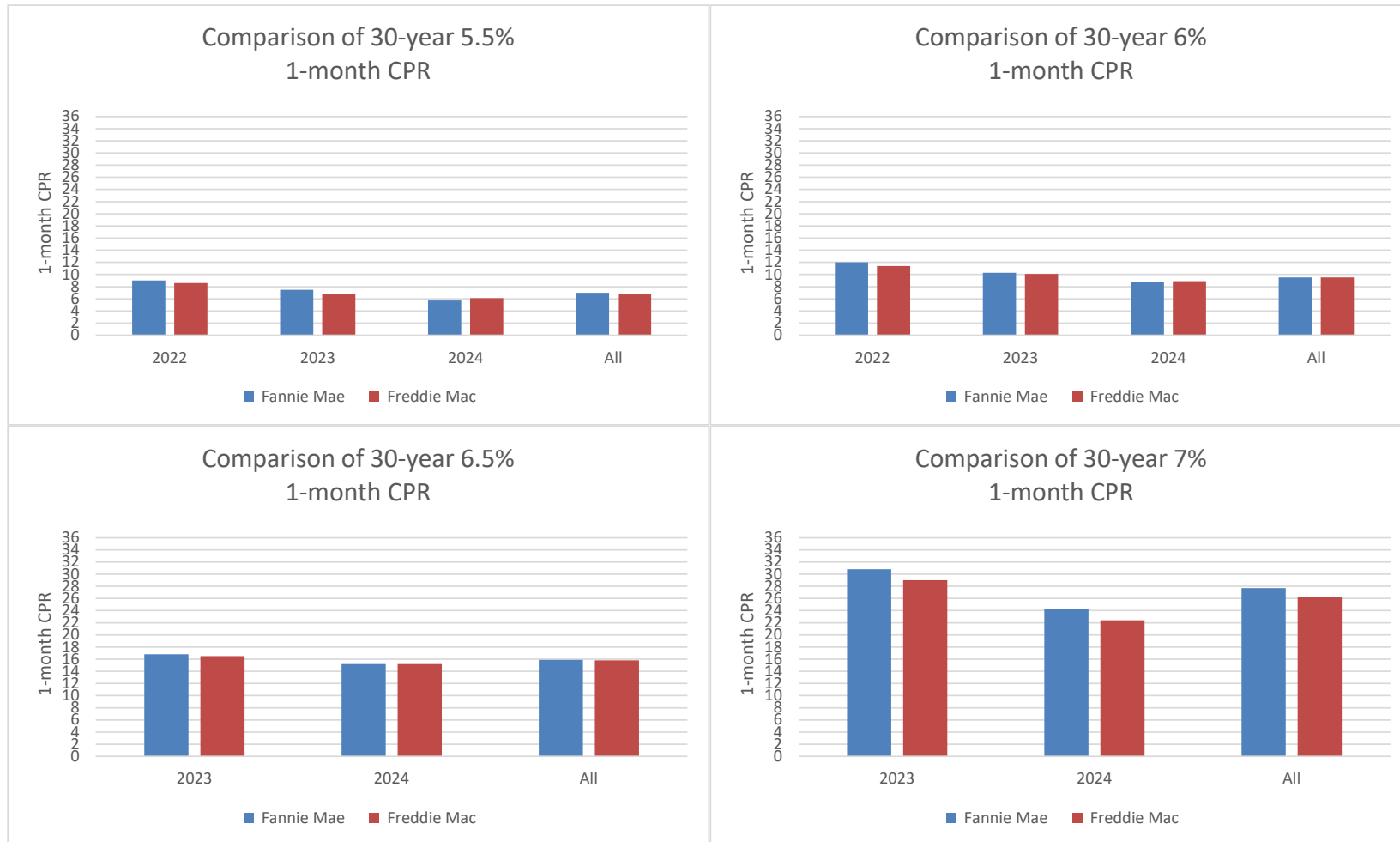
* The 5.5 percent coupon cohorts for 2019, 2020, and 2021; the 6 percent coupon cohorts for 2019, 2020, and 2021; the 6.5 percent coupon cohorts for 2019, 2020, 2021, and 2022; and the 7 percent coupon cohorts for 2019, 2020, 2021, and 2022, are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no one-month CPR information.

Chart 3a: One-month CPR on All 30-year, TBA-eligible MBS by Coupon*

* CPR data was omitted for dates where the combined UPB of the coupon cohort was below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no one-month CPR information.

Chart 3a: One-month CPR on All 30-year, TBA-eligible MBS by Coupon

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no one-month CPR information.

Chart 3a: One-month CPR on All 30-year, TBA-eligible MBS by Coupon

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no one-month CPR information.

Chart 3b: Three-month CPR on 30-year Fastest Paying Quartiles, 1.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year*

* The 2019, 2022, 2023, and 2024 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3c: Three-month CPR on 30-year Fastest Paying Quartiles, 2.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year*

30-year 2% Coupon, 2022 — Fastest Quartile based on 3-month CPR

30-year 2% Coupon, 2021 — Fastest Quartile based on 3-month CPR

30-year 2% Coupon, 2020 — Fastest Quartile based on 3-month CPR

* The 2019, 2023, and 2024 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3d: Three-month CPR on 30-year Fastest Paying Quartiles, 2.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year*

30-year 2.5% Coupon, 2022
Fastest Quartile based on 3-month CPR

30-year 2.5% Coupon, 2021
Fastest Quartile based on 3-month CPR

30-year 2.5% Coupon, 2020
Fastest Quartile based on 3-month CPR

30-year 2.5% Coupon, 2019
Fastest Quartile based on 3-month CPR

* The 2023 and 2024 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.
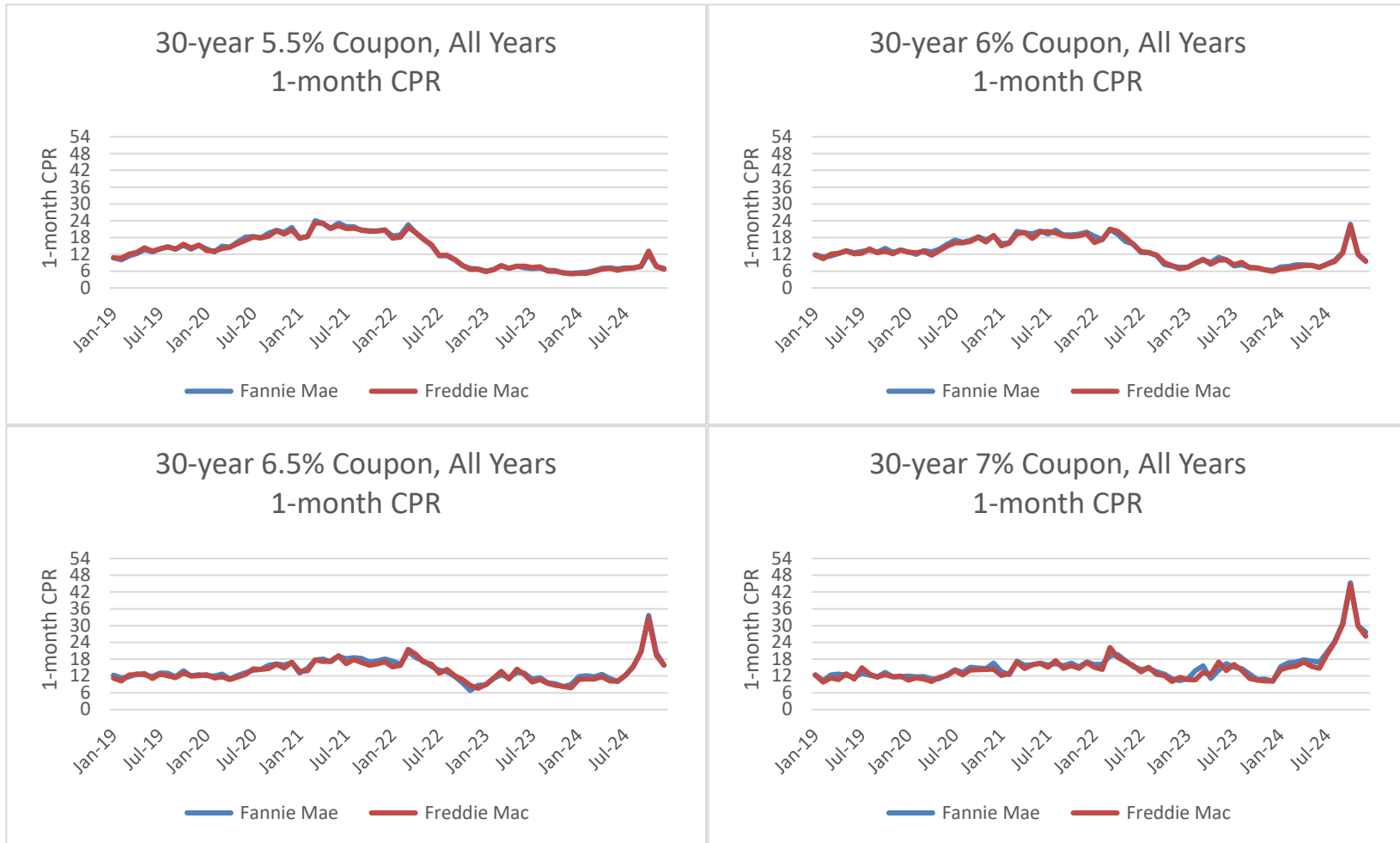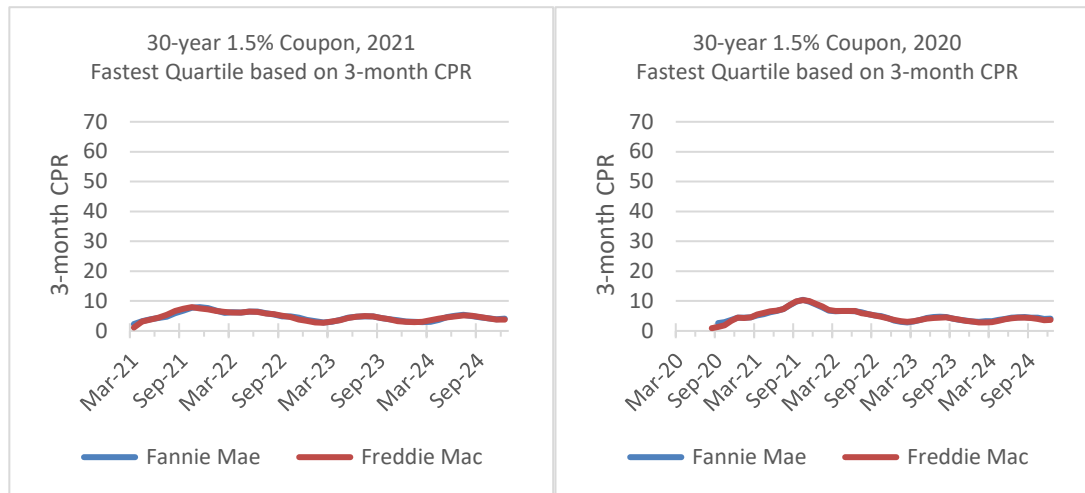
Chart 3e: Three-month CPR on 30-year Fastest Paying Quartiles, 3.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year*

30-year 3% Coupon, 2022
Fastest Quartile based on 3-month CPR

30-year 3% Coupon, 2021
Fastest Quartile based on 3-month CPR

30-year 3% Coupon, 2020
Fastest Quartile based on 3-month CPR

30-year 3% Coupon, 2019
Fastest Quartile based on 3-month CPR

* The 2023 and 2024 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3f: Three-month CPR on 30-year Fastest Paying Quartiles, 3.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year
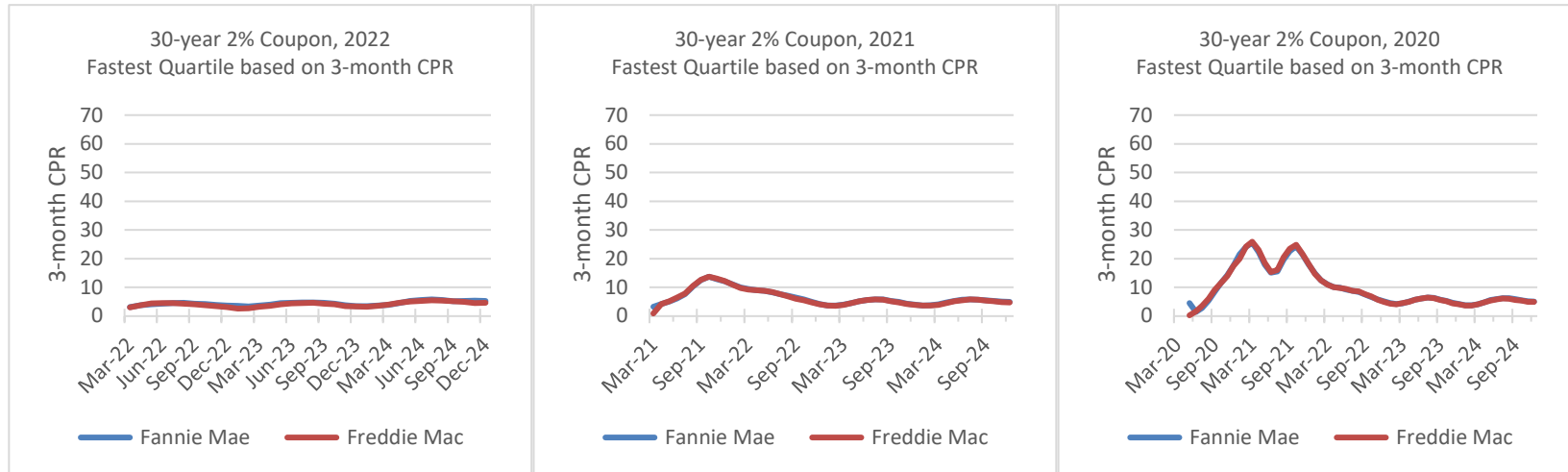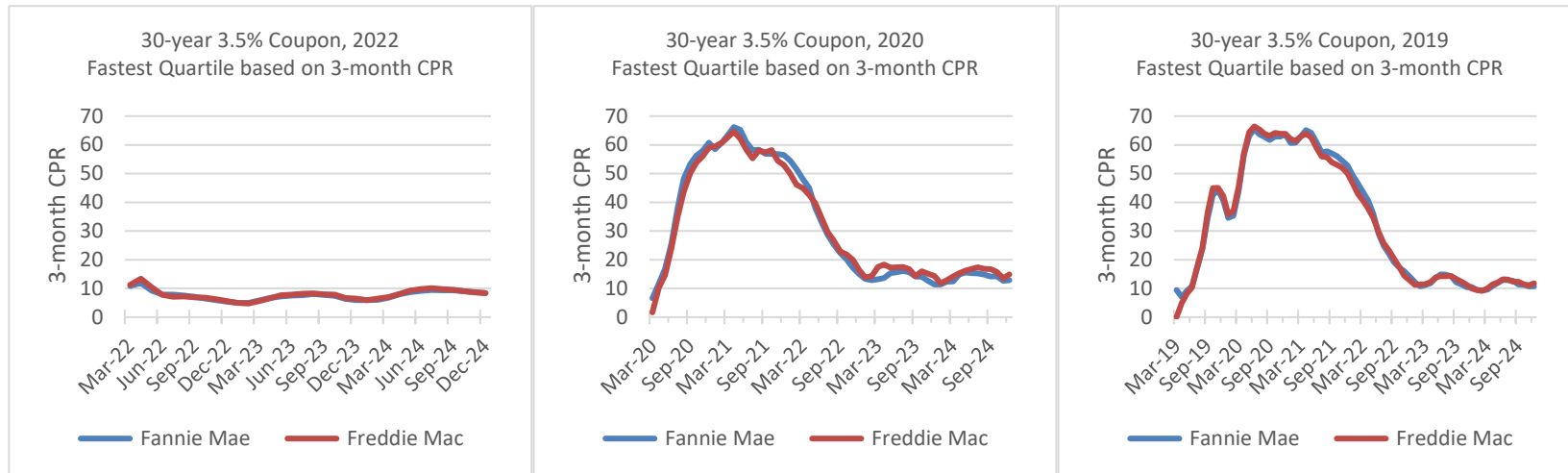

* The 2021, 2023, and 2024 cohorts are omitted because it has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3g: Three-month CPR on 30-year Fastest Paying Quartiles, 4.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year
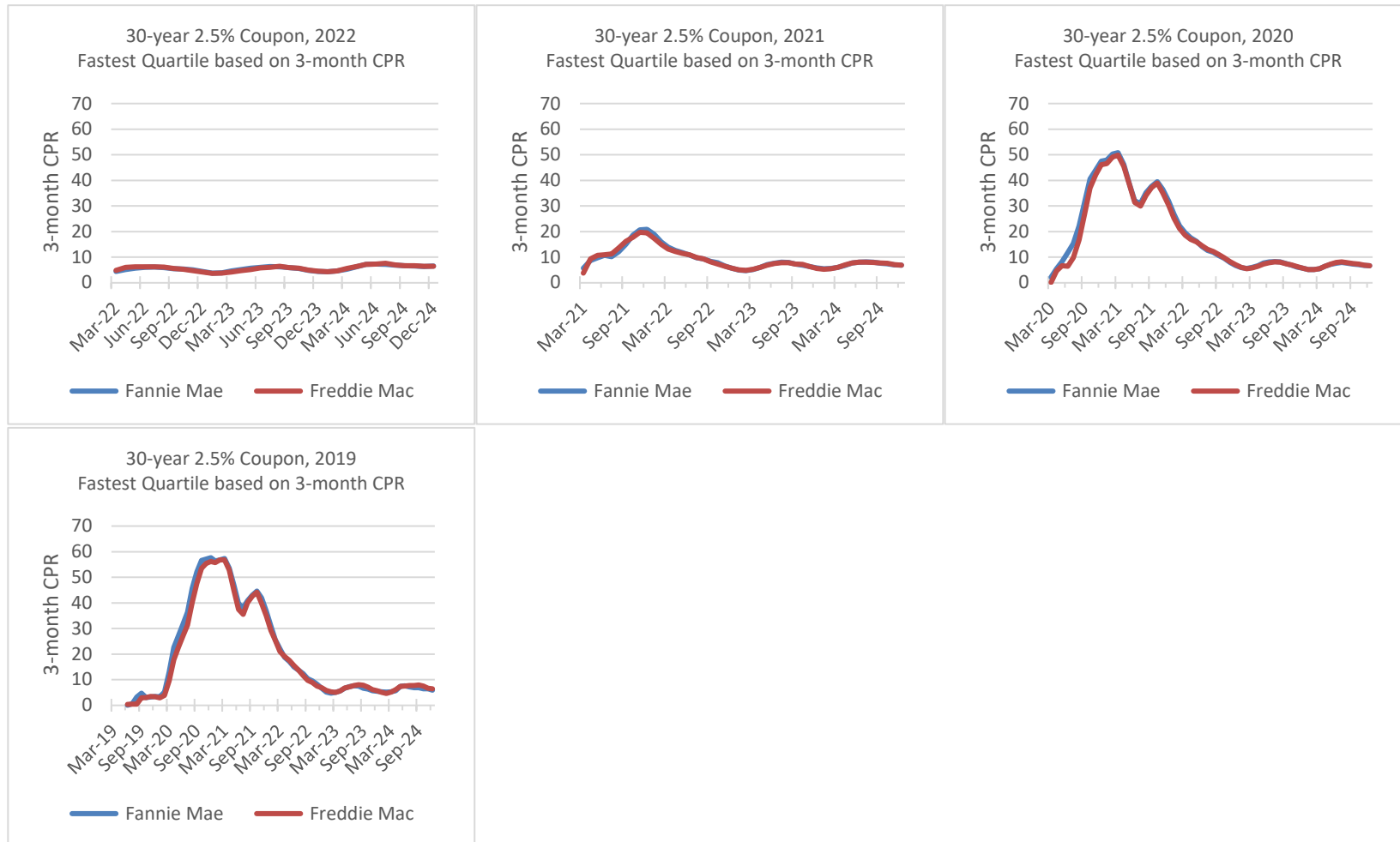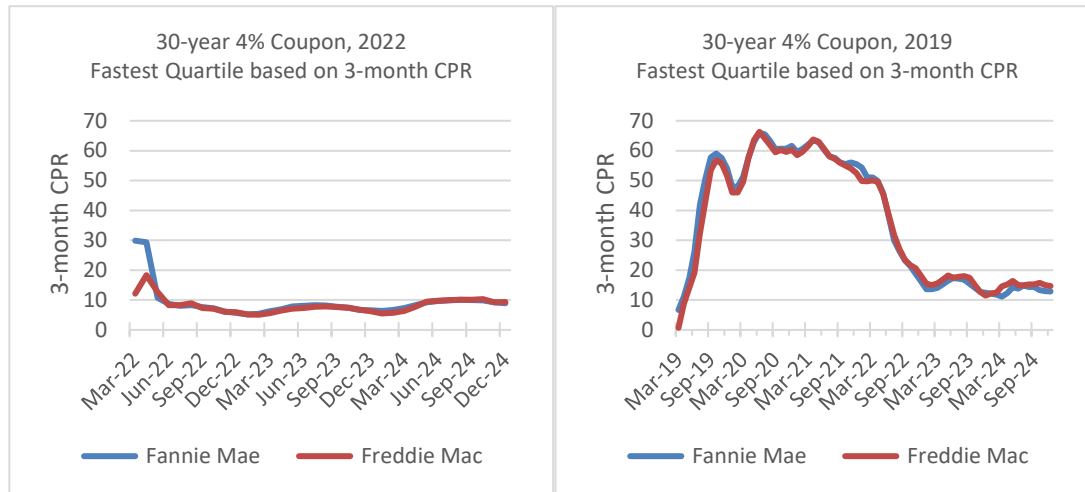

* The 2020, 2021, 2023, and 2024 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3h: Three-month CPR on 30-year Fastest Paying Quartiles, 4.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year

30-year 4.5% Coupon, 2024
Fastest Quartile based on 3-month CPR

30-year 4.5% Coupon, 2023
Fastest Quartile based on 3-month CPR

30-year 4.5% Coupon, 2022
Fastest Quartile based on 3-month CPR

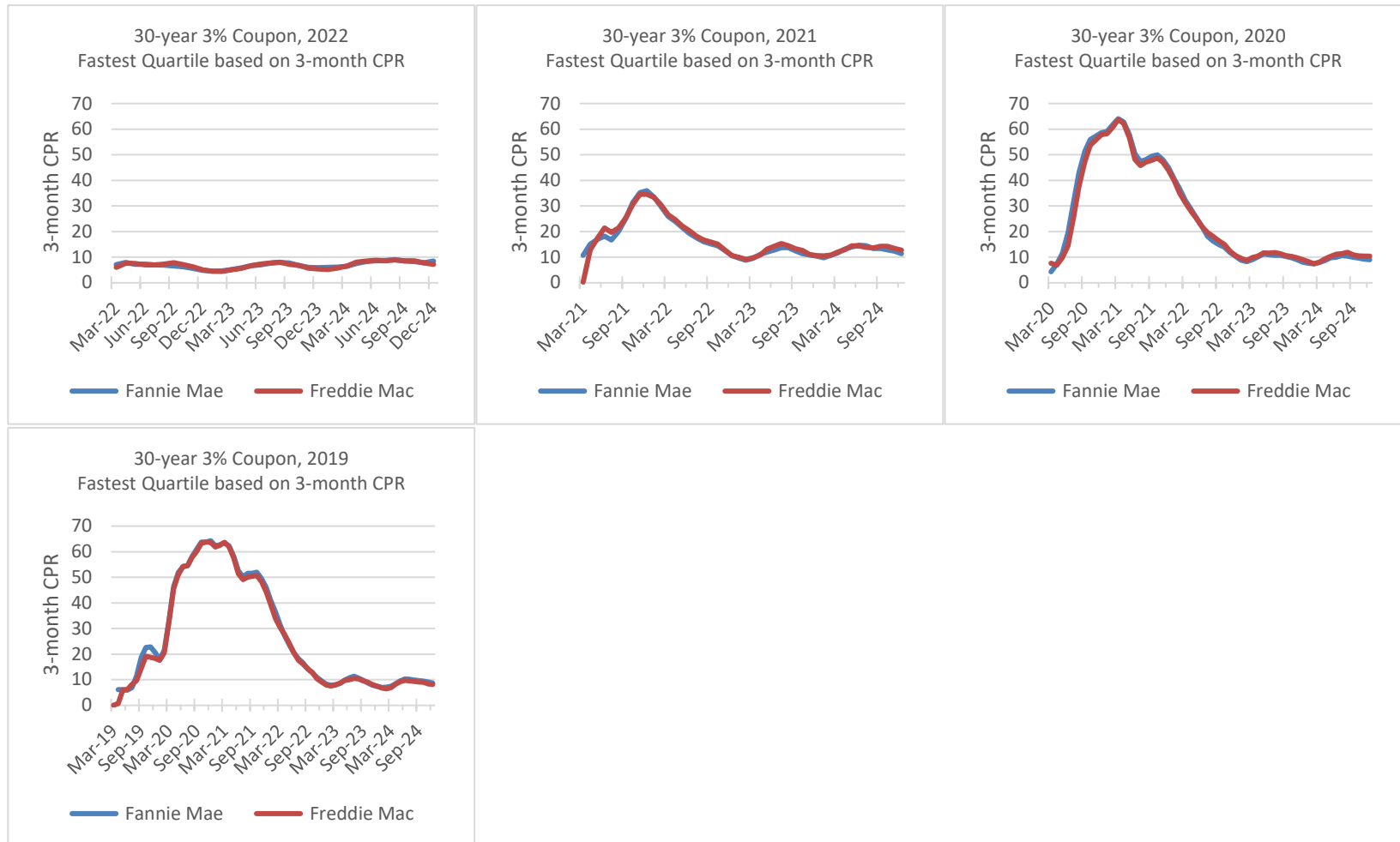30-year 4.5% Coupon, 2019
Fastest Quartile based on 3-month CPR

* The 2020 and 2021 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3i: Three-month CPR on 30-year Fastest Paying Quartiles, 5.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year

30-year 5% Coupon, 2024
Fastest Quartile based on 3-month CPR

30-year 5% Coupon, 2023
Fastest Quartile based on 3-month CPR

30-year 5% Coupon, 2022
Fastest Quartile based on 3-month CPR

* The 2019, 2020, and 2021 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3j: Three-month CPR on 30-year Fastest Paying Quartiles, 5.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year


30-year 5.5% Coupon, 2024
Fastest Quartile based on 3-month CPR

30-year 5.5% Coupon, 2023
Fastest Quartile based on 3-month CPR

30-year 5.5% Coupon, 2022
Fastest Quartile based on 3-month CPR

* The 2019, 2020, and 2021 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3k: Three-month CPR on 30-year Fastest Paying Quartiles, 6.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year


30-year 6% Coupon, 2024
Fastest Quartile based on 3-month CPR

30-year 6% Coupon, 2023
Fastest Quartile based on 3-month CPR

30-year 6% Coupon, 2022
Fastest Quartile based on 3-month CPR

* The 2019, 2020, and 2021 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3l: Three-month CPR on 30-year Fastest Paying Quartiles, 6.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year
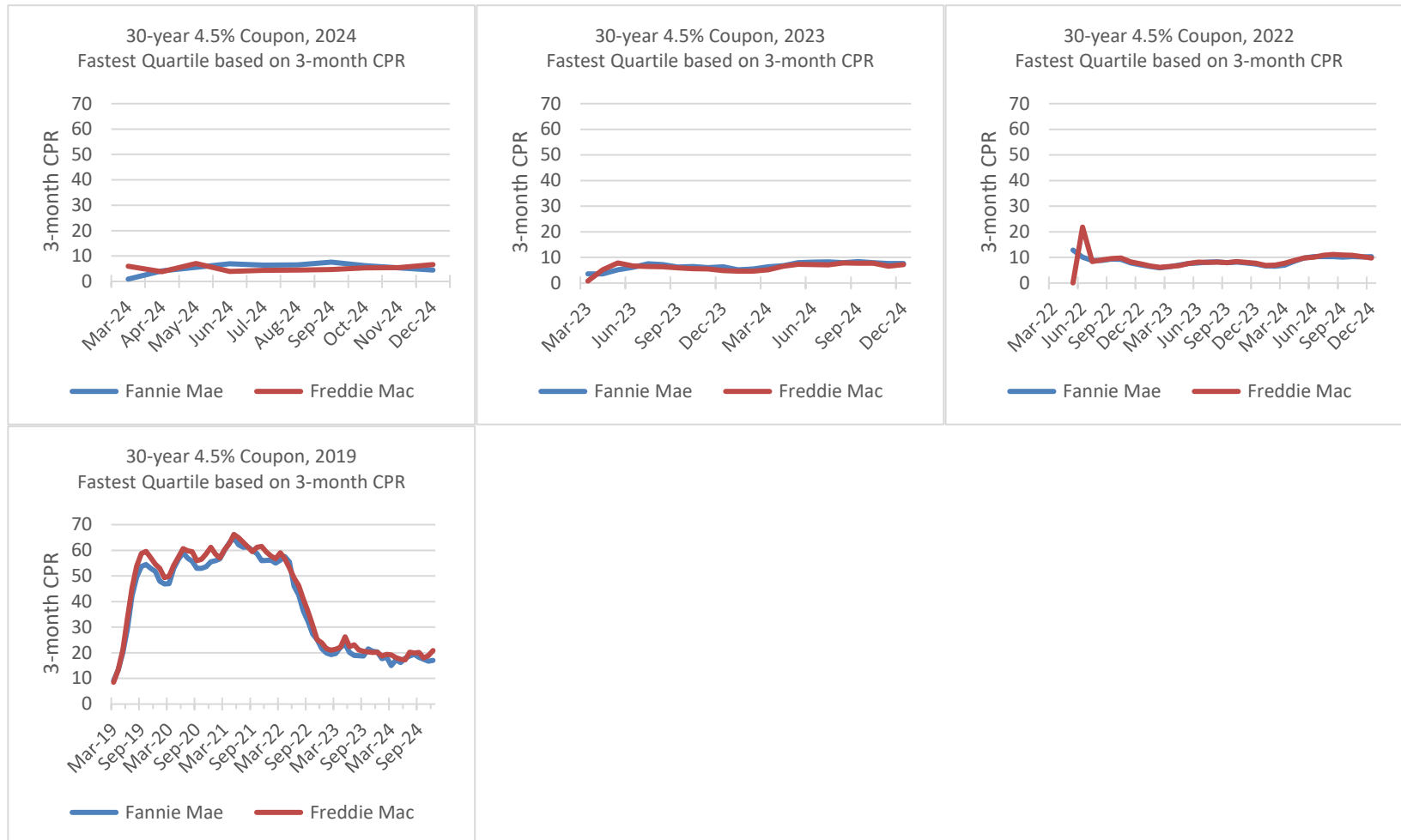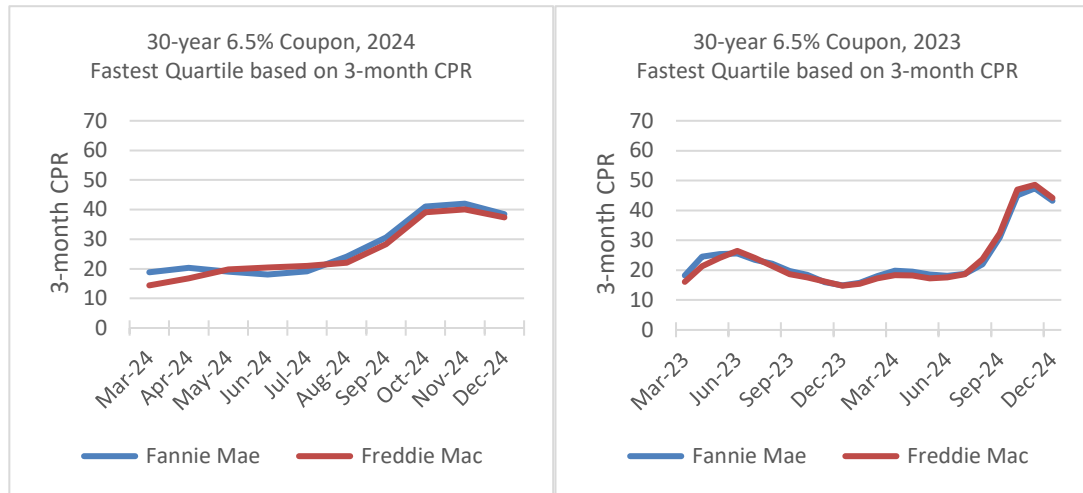

* The 2019, 2020, 2021, and 2022 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 3m: Three-month CPR on 30-year Fastest Paying Quartiles, 7.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year
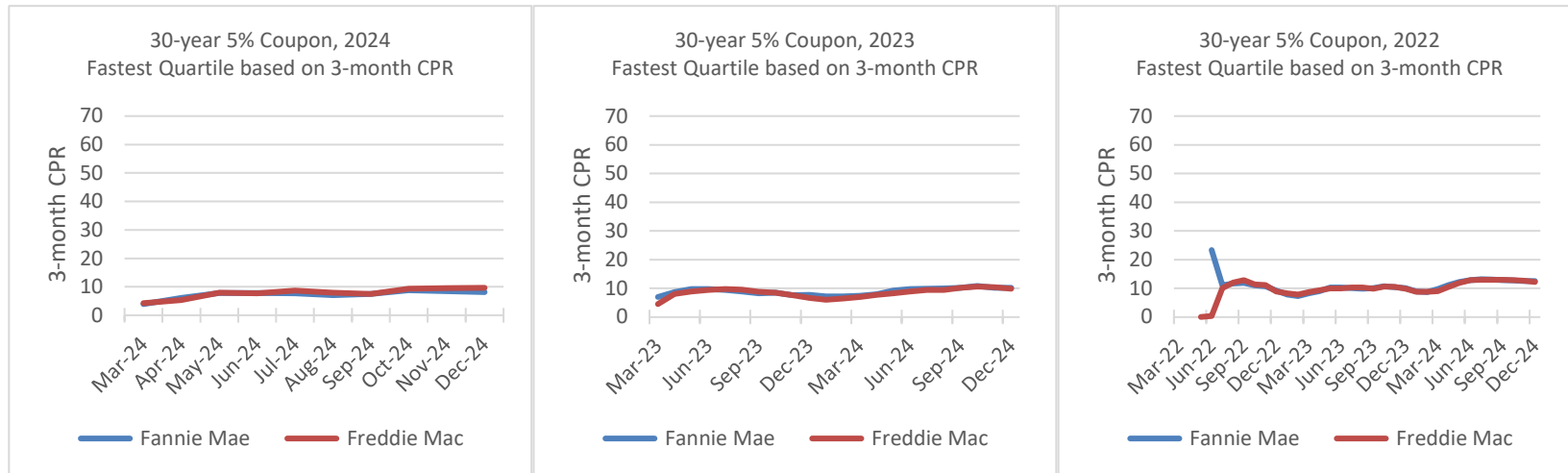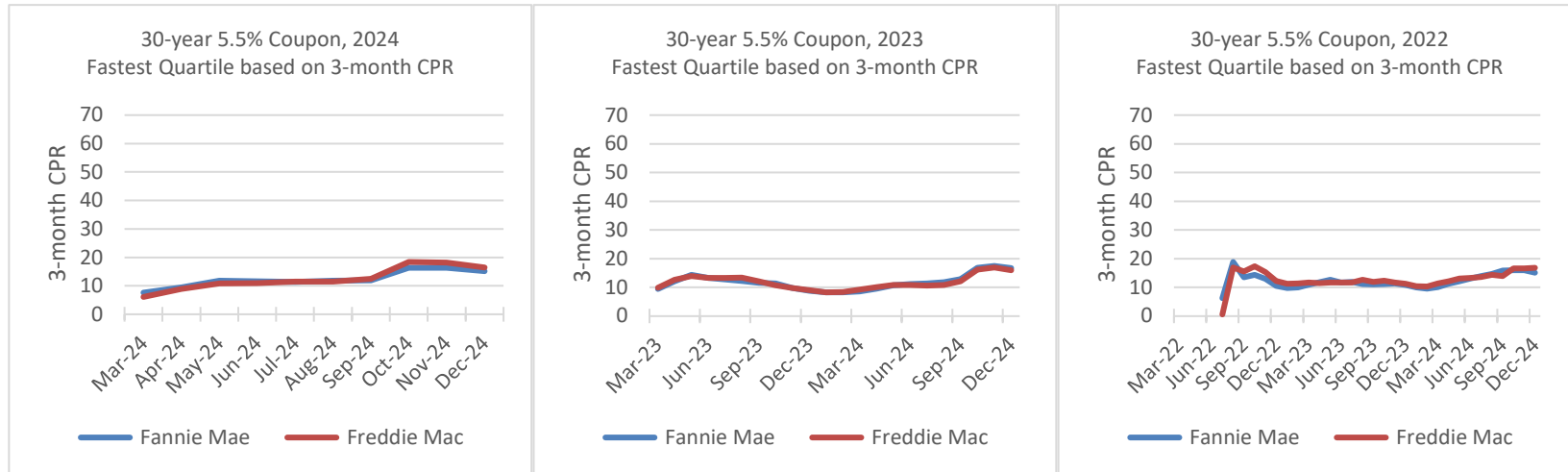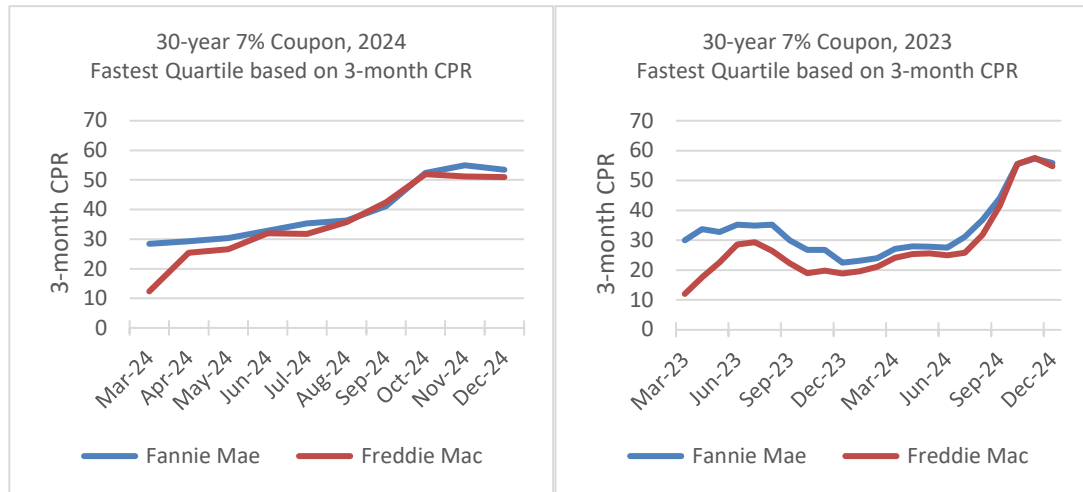

* The 2019, 2020, 2021, and 2022 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information.

Chart 4: Comparison of Weighted Average Loan Rate to Coupon Spread on New 30-year MBS Issuance

Source: RiskSpan calculations from data available publicly as of January 2025. Gaps in data may occur in some months due to a lack of MBS issuance. Latest month's WAC-Coupon Spread value is labeled, where available.

Chart 4: Comparison of Weighted Average Loan Rate to Coupon Spread on New 30-year MBS Issuance

Source: RiskSpan calculations from data available publicly as of January 2025. Gaps in data may occur in some months due to a lack of MBS issuance. Latest month's WAC-Coupon Spread value is labeled, where available.

Chart 4: Comparison of Weighted Average Loan Rate to Coupon Spread on New 30-year MBS Issuance

Source: RiskSpan calculations from data available publicly as of January 2025. Gaps in data may occur in some months due to a lack of MBS issuance. Latest month's WAC-Coupon Spread value is labeled, where available.

Data Tables

FHFA uses Table 1, the Annual Vintage Report, to compare, at the cohort level, the Enterprises' three-month prepayment rates with cohort attributes, such as the weighted-average loan rate (WAC), the weighted-average loan maturity (WAM), the weighted-average loan age (WALA), and the unpaid principal balance (UPB). These comparisons provide context to understand better any significant differences in CPRs across the Enterprises.

Table 2, the Quartile Report, is used to compare the range of prepayment rates across all of the TBA-eligible MBS that have the same coupon issued by a given Enterprise. To do so, all of an Enterprise's TBA-eligible MBS pools outstanding in the month, excluding specified pools as defined in the glossary, and bearing the stated coupon are ranked by their three-month CPRs from fastest to slowest. The pools are then grouped into quartiles based on UPB. The Report presents the WALA, WAC, average loan size (ALS), and credit score (FICO) for each quartile. Quartile 1 in this table corresponds to the fastest paying quartile. Table 2 presents this information as of the end of the quarter.

Table 3, the Total Industry Issuance Report, provides a comparison, at the coupon cohort level, of the Enterprises' previous three months of issuance, with various key loan attributes that would affect the expectations of prepayments and delinquencies. FHFA uses this report to identify any differences in loan attributes that may cause a divergence in prepayment rates. The attributes that generally create faster prepayments, such as high credit score and low loan-to-value (LTV) ratio, also generally lower defaults. Analyzing new issuance data allows FHFA and the Enterprises to make timely adjustments to business practices to reduce potential misalignments in future prepayment rates.

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Table 1: 30-year, Fastest Quartile of TBA-eligible MBS Vintage Report

Coupon	Year	Weighted Average Coupon (percent)		Weighted Average Maturity (months)		Weighted Average Loan Age (months)		Unpaid Principal Balance ($ billions)		Three Month Conditional Prepayment Rates (percent)					
										December		November		October	
		FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
1.5	2020	2.54	2.55	300	301	51	50	8.2	10.4	4.10	3.60	4.00	3.50	4.40	4.00
	2021	2.49	2.52	306	307	46	46	9	14.9	4.10	3.80	3.90	3.80	4.20	4.20
2	2020	2.94	2.91	298	300	51	50	51.2	43.4	5.00	4.90	5.10	4.90	5.50	5.40
	2021	2.86	2.88	311	310	42	43	89.5	85.6	4.90	4.70	5.00	4.80	5.30	5.20
	2022	2.96	2.97	320	320	35	35	9.2	9.8	5.30	4.60	5.40	4.50	5.30	4.90
2.5	2019	3.45	3.50	288	286	62	63	3.3	2.8	5.90	6.40	6.40	6.70	6.40	7.50
	2020	3.36	3.39	297	296	52	54	32.6	21.8	6.70	6.70	6.80	6.90	7.10	7.30
	2021	3.25	3.26	315	314	40	40	44.6	41.2	6.90	6.90	7.00	7.10	7.40	7.60
	2022	3.36	3.31	321	320	34	35	15.2	13.9	6.50	6.40	6.30	6.40	6.50	6.70
3	2019	3.92	3.92	285	286	64	64	6.7	6.2	8.70	8.10	9.10	8.40	9.40	9.00
	2020	3.85	3.86	294	295	57	56	7.2	4.1	9.00	10.40	9.20	10.40	9.60	10.50
	2021	3.77	3.73	314	314	41	40	2.6	2.3	11.40	12.70	12.30	13.40	12.90	14.20
	2022	3.73	3.74	321	321	34	34	11.7	10.4	8.50	7.20	7.80	7.70	8.30	8.60
3.5	2019	4.42	4.40	286	284	65	65	2.8	2.1	10.70	11.80	10.70	11.00	11.20	11.50
	2020	4.35	4.36	295	294	57	57	0.8	0.4	12.80	14.90	12.60	13.50	14.20	15.70
	2022	4.23	4.19	322	322	33	33	10.5	8.5	8.40	8.40	8.70	8.60	9.00	9.00
4	2019	4.87	4.86	287	283	65	67	1.3	0.8	12.90	14.70	13.00	15.00	13.30	15.70
	2022	4.75	4.79	324	324	30	30	11.6	11	8.90	9.30	9.20	9.20	9.90	10.30
4.5	2019	5.34	5.32	284	279	68	70	0.4	0.3	17.00	20.90	16.70	18.80	17.40	18.00
	2022	5.35	5.34	325	324	29	29	11.7	10.9	10.30	9.80	10.20	10.30	10.30	10.80
	2023	5.42	5.48	333	333	20	20	2.6	2	7.60	7.20	7.60	6.50	7.90	7.70
	2024	5.46	5.50	352	348	5	8	1.6	1.1	4.50	6.60	5.40	5.50	6.20	5.30
5	2022	5.86	5.81	325	325	29	28	7.4	7.2	12.50	12.20	12.50	12.60	12.70	12.90
	2023	5.95	5.96	331	331	21	21	9.7	8.5	10.20	9.90	10.20	10.40	10.80	10.60
	2024	6.00	6.02	347	347	8	7	5.5	4.9	8.20	9.70	8.50	9.60	8.80	9.30

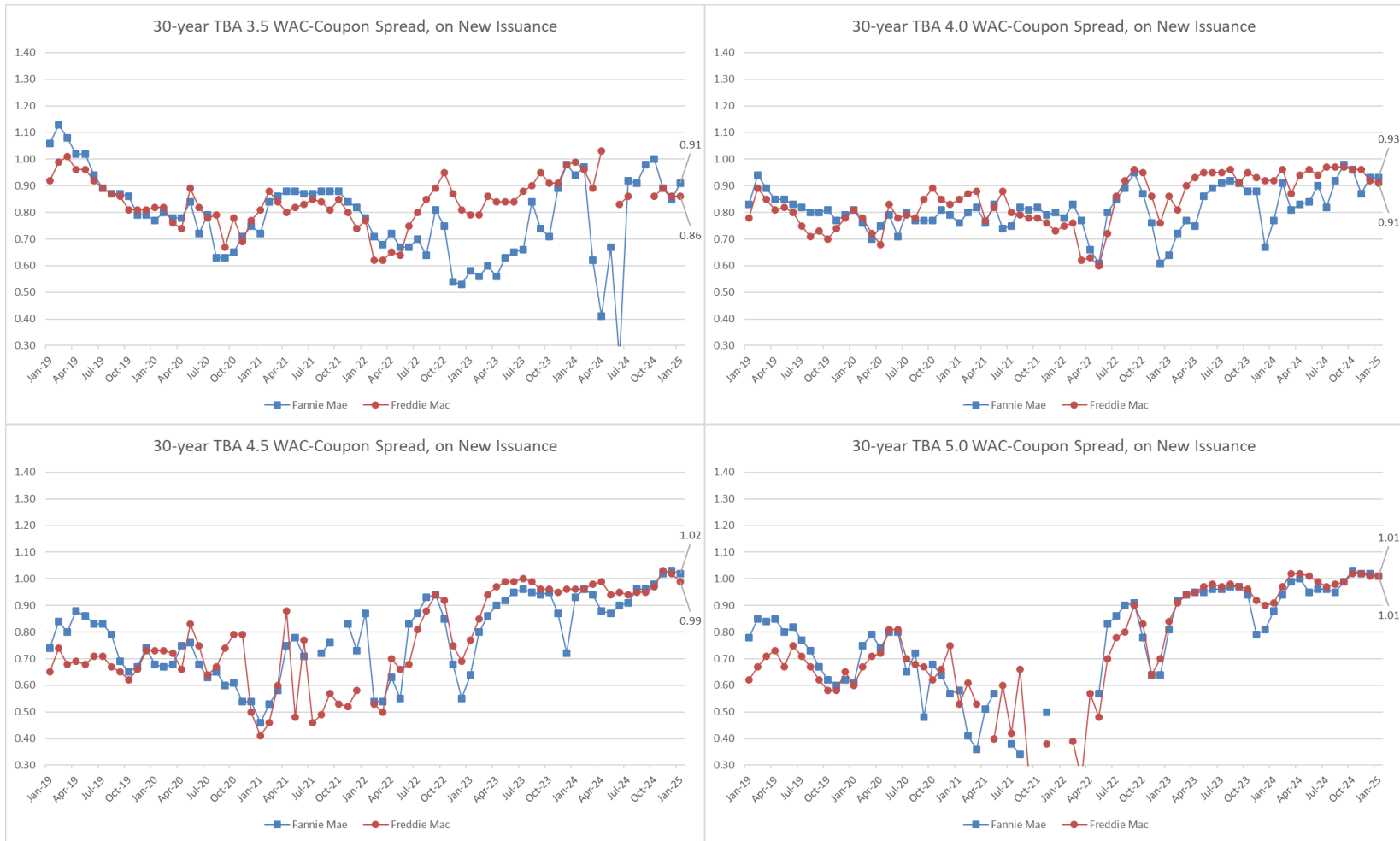Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information, and exclude specified pools (see appendix for definition). The balances displayed on the table are beginning-of-quarter balances for the population included in the fastest quartile for each cohort.

Table 1: 30-year, Fastest Quartile of TBA-eligible MBS Vintage Report

Coupon	Year	Weighted Average Coupon (percent)		Weighted Average Maturity (months)		Weighted Average Loan Age (months)		Unpaid Principal Balance ($ billions)		Three Month Conditional Prepayment Rates (percent)					
										December		November		October	
		FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
5.5	2022	6.37	6.39	326	327	26	25	4.2	3.5	15.10	16.80	15.90	16.60	15.90	16.60
	2023	6.47	6.47	333	335	19	17	12.3	12.6	16.70	16.00	17.40	16.90	16.80	16.20
	2024	6.52	6.51	345	345	9	9	12.9	13.5	15.20	16.50	16.30	18.20	16.30	18.40
6	2022	6.93	6.91	327	327	25	25	1.9	1.7	26.10	24.40	27.20	25.90	25.20	24.50
	2023	6.92	6.93	337	338	15	15	10.3	10.6	29.90	29.80	32.70	32.50	30.60	31.00
	2024	6.98	6.97	345	345	9	9	14.7	14.9	25.30	24.80	28.00	27.40	27.70	26.80
6.5	2023	7.44	7.44	339	340	13	13	7.8	7.2	43.20	44.20	47.40	48.60	45.00	47.00
	2024	7.46	7.45	343	344	10	10	6.4	7.1	38.50	37.40	42.00	40.10	41.10	39.10
7	2023	7.92	7.91	339	340	13	13	2.3	2.4	55.80	54.80	57.30	57.60	55.50	55.50
	2024	7.93	7.93	343	342	10	10	0.9	0.9	53.50	51.00	55.00	51.20	52.40	51.90

Source: RiskSpan calculations from data available publicly as of January 2025. Calculations exclude new issuance with no three-month CPR information, and exclude specified pools (see appendix for definition). The balances displayed on the table are beginning-of-quarter balances for the population included in the fastest quartile for each cohort.

Table 2: 30-year TBA-eligible, less Specified Pools, Cohort Quartile Report for Qualifying Cohorts*

30-year, 1.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	4.2		3.2		3.0		2.2	
Freddie Mac	3.8		3.0		2.9		2.3	
Difference	0.4		0.2		0.1		-0.1	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	50	47	49	50	47	48	46	46
WAC	2.52	2.53	2.52	2.54	2.49	2.53	2.48	2.52
ALS	356	367	377	370	385	370	375	367
FICO	775	772	776	774	775	773	774	772

30-year, 2.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	6.7		4.9		4.6		3.1	
Freddie Mac	6.8		4.8		4.6		3.0	
Difference	-0.1		0.1		0.0		0.1	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	45	43	41	44	48	46	49	45
WAC	3.30	3.30	3.31	3.30	3.32	3.33	3.35	3.33
ALS	322	321	358	361	356	358	322	324
FICO	749	746	747	748	757	753	755	753

30-year, 2.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	5.0		3.8		3.6		2.7	
Freddie Mac	4.8		3.8		3.6		2.9	
Difference	0.2		0.0		0.0		-0.2	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	48	46	48	45	43	46	44	44
WAC	2.91	2.89	2.88	2.90	2.85	2.89	2.87	2.89
ALS	322	338	359	369	373	372	351	351
FICO	767	764	769	766	765	765	765	764

30-year, 3.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	9.0		5.7		4.9		2.5	
Freddie Mac	8.9		5.4		4.8		2.3	
Difference	0.1		0.3		0.1		0.2	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	47	51	47	56	51	36	44	42
WAC	3.81	3.83	3.84	3.84	3.84	3.80	3.77	3.81
ALS	313	294	336	339	353	380	322	317
FICO	736	738	746	749	752	748	747	746

* FHFA omits the average prepayment speeds of pools with age less than 3 months and coupon cohorts with a combined UPB less than $10 billion.

* Qualifying Cohorts are defined as cohorts of TBA-eligible pools, excluding Specified Pools, issued during the most recent six origination years, including the current origination year if pools with age at least 3 months are available.

* The weighted-average statistics that are published in this table use beginning-of-quarter balances and end-of-quarter WAC, WALA, and FICO. ALS statistics represent a simple average of all loans in the cohorts.

Table 2: 30-year TBA-eligible, less Specified Pools, Cohort Quartile Report for Qualifying Cohorts*

30-year, 3.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	9.6		6.1		5.0		2.7	
Freddie Mac	10.0		5.5		4.7		2.3	
Difference	-0.4		0.6		0.3		0.4	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	46	47	42	38	35	36	37	37
WAC	4.31	4.30	4.28	4.22	4.21	4.30	4.22	4.31
ALS	315	307	355	364	387	384	340	334
FICO	731	730	741	744	754	753	746	746

30-year, 4.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	10.1		6.5		5.3		2.0	
Freddie Mac	9.7		5.9		5.0		2.0	
Difference	0.4		0.6		0.3		0.0	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	30	30	30	30	26	26	19	22
WAC	5.32	5.36	5.43	5.37	5.36	5.40	5.39	5.42
ALS	348	356	402	409	395	406	352	352
FICO	749	748	753	756	756	757	757	756

30-year, 4.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	9.5		5.8		5.3		2.3	
Freddie Mac	9.9		5.2		4.8		2.3	
Difference	-0.4		0.6		0.5		0.0	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	39	38	31	29	32	30	28	30
WAC	4.78	4.80	4.85	4.91	4.91	4.88	4.82	4.87
ALS	328	328	400	419	410	412	340	345
FICO	734	738	752	760	757	756	750	751

30-year, 5.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	11.4		6.8		5.2		1.7	
Freddie Mac	11.1		6.7		5.5		1.8	
Difference	0.3		0.1		-0.3		-0.1	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	26	24	23	21	13	17	17	17
WAC	5.87	5.89	5.90	5.89	5.97	5.97	5.92	5.93
ALS	355	372	400	429	430	445	323	341
FICO	747	750	759	759	765	765	757	756

* FHFA omits the average prepayment speeds of pools with age less than 3 months and coupon cohorts with a combined UPB less than $10 billion.
* Qualifying Cohorts are defined as cohorts of TBA-eligible pools, excluding Specified Pools, issued during the most recent six origination years, including the current origination year if pools with age at least 3 months are available.
* The weighted-average statistics that are published in this table use beginning-of-quarter balances and end-of-quarter WAC, WALA, and FICO. ALS statistics represent a simple average of all loans in the cohorts.

Table 2: 30-year TBA-eligible, less Specified Pools, Cohort Quartile Report for Qualifying Cohorts*

30-year, 5.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	15.9		11.2		8.4		2.2	
Freddie Mac	16.5		11.4		9.2		2.5	
Difference	-0.6		-0.2		-0.8		-0.3	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	16	13	18	20	13	11	12	14
WAC	6.48	6.49	6.45	6.42	6.45	6.49	6.47	6.46
ALS	415	423	427	433	398	438	305	303
FICO	763	764	760	760	762	764	758	756

30-year, 6.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	41.6		31.4		23.1		8.9	
Freddie Mac	42.7		30.8		23.1		8.5	
Difference	-1.1		0.6		0.0		0.4	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	14	14	15	14	14	10	10	12
WAC	7.43	7.42	7.40	7.40	7.37	7.43	7.42	7.39
ALS	426	419	420	406	385	401	305	305
FICO	758	756	750	746	749	752	747	744

30-year, 6.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	28.1		20.2		14.1		4.6	
Freddie Mac	27.2		19.8		14.3		4.4	
Difference	0.9		0.4		-0.2		0.2	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	15	15	14	14	10	9	11	12
WAC	6.93	6.94	6.95	6.94	6.95	6.94	6.94	6.94
ALS	431	418	433	439	400	424	296	290
FICO	762	760	759	759	762	762	756	752

30-year, 7.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	55.6		48.7		38.1		14.7	
Freddie Mac	54.7		47.2		36.8		15.5	
Difference	0.9		1.5		1.3		-0.8	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	13	13	14	14	14	12	11	12
WAC	7.92	7.91	7.88	7.89	7.89	7.90	7.87	7.86
ALS	403	403	397	406	347	364	297	280
FICO	749	747	745	743	739	734	739	734

* FHFA omits the average prepayment speeds of pools with age less than 3 months and coupon cohorts with a combined UPB less than $10 billion.

* Qualifying Cohorts are defined as cohorts of TBA-eligible pools, excluding Specified Pools, issued during the most recent six origination years, including the current origination year if pools with age at least 3 months are available.

* The weighted-average statistics that are published in this table use beginning-of-quarter balances and end-of-quarter WAC, WALA, and FICO. ALS statistics represent a simple average of all loans in the cohorts.

Table 3: Q4 2024 30-year, TBA-eligible MBS Total Industry Quarterly Issuance Report*

	3.50%		4.00%		4.50%		5.00%		5.50%		6.00%		6.50%		7.00%		7.50%		8.00%	All Loans	
	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FRE	FNM	FRE
Loan Count	968	459	5,385	2,402	23,015	15,441	74,480	91,157	70,046	91,505	42,622	49,223	12,990	14,873	3,973	4,204	216	549	42	233,695	269,855
UPB (billions)	0.36	0.14	1.98	0.91	8.46	5.99	25.89	32.63	23.27	32.13	13.91	16.70	3.99	4.87	1.09	1.15	0.05	0.13	0.01	79.00	94.66
% of Production Volume	0.50	0.20	2.50	1.00	10.70	6.30	32.80	34.40	29.50	33.90	17.70	17.60	5.00	5.10	1.40	1.20	0.10	0.10	0.00	100.00	100.00
WA Note Rate (%)	4.38	4.36	4.91	4.93	5.53	5.52	6.02	6.01	6.51	6.51	6.96	6.96	7.42	7.43	7.78	7.83	8.41	8.48	8.89	6.34	6.40
WA Loan Age (mos.)	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	4	9	1	1
WA FICO	764	760	761	763	765	766	763	764	757	758	751	748	736	729	734	723	741	720	709	757	757
WA LTV	0.8	0.78	0.8	0.79	0.76	0.75	0.76	0.76	0.78	0.78	0.79	0.8	0.79	0.81	0.78	0.8	0.78	0.77	0.77	0.78	0.78
%FICO<680	4.00	6.00	4.00	5.00	3.00	3.00	3.00	4.00	5.00	5.00	7.00	9.00	14.00	18.00	15.00	23.00	17.00	27.00	30.00	5.00	6.00
%FICO>740	78.00	73.00	74.00	77.00	78.00	79.00	77.00	77.00	70.00	71.00	64.00	61.00	51.00	45.00	50.00	39.00	55.00	40.00	23.00	71.00	70.00
%LTV>80	45.00	40.00	43.00	42.00	35.00	31.00	38.00	37.00	42.00	42.00	43.00	43.00	39.00	42.00	30.00	34.00	35.00	23.00	20.00	40.00	40.00
%FICO<680 & LTV>80	2.00	2.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	7.00	3.00	6.00	3.00	3.00	6.00	1.00	2.00
%DTI>40	49.00	53.00	47.00	49.00	45.00	46.00	45.00	47.00	48.00	49.00	49.00	52.00	51.00	55.00	52.00	54.00	45.00	48.00	46.00	47.00	49.00
%Purchase	100.00	100.00	96.00	92.00	71.00	62.00	72.00	73.00	79.00	80.00	81.00	82.00	76.00	77.00	72.00	67.00	71.00	58.00	72.00	77.00	76.00
%Rate/Term	0.00	0.00	3.00	7.00	24.00	33.00	20.00	21.00	11.00	12.00	7.00	6.00	6.00	5.00	6.00	4.00	8.00	4.00	1.00	14.00	15.00
%Cash out	0.00	0.00	1.00	1.00	5.00	5.00	7.00	6.00	9.00	8.00	13.00	12.00	19.00	18.00	22.00	28.00	21.00	38.00	28.00	9.00	9.00
%Owner Occupied	99.00	99.00	97.00	98.00	98.00	98.00	97.00	98.00	95.00	94.00	91.00	89.00	75.00	79.00	63.00	66.00	39.00	48.00	33.00	94.00	94.00
%Second Home	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	2.00	3.00	7.00	5.00	10.00	10.00	32.00	19.00	16.00	1.00	2.00
%Investor	0.00	1.00	3.00	2.00	2.00	1.00	2.00	2.00	4.00	5.00	7.00	8.00	18.00	16.00	26.00	24.00	29.00	34.00	51.00	5.00	5.00

* Numbers in the table represent end of quarter, not at-securitization, values. UPB = unpaid principal balance; WA = weighted average; WAC = weighted average coupon; WALA = weighted average loan age; LTV = loan-to-value ratio; DTI = debt-to-income ratio.

Source: RiskSpan calculations from data available publicly as of January 2025.

Glossary

Average loan size (ALS) refers to the average dollar amount of the loans as stated on the notes at the time the loans were originated or modified.

Cohort refers to those Enterprise TBA-eligible securities with the same coupon, maturity, and loan-origination year where the combined unpaid principal balance of such securities exceeds $10 billion. The loan-origination year is calculated as the value-weighted average of the origination years of the mortgages collateralizing a security.

Conditional prepayment rate (CPR), also known as the constant prepayment rate, measures prepayments as a percentage of the current outstanding principal balance of the pool of loans backing a mortgage-backed security or cohort of those securities. The CPR is expressed as a compound annual rate.

Debt-to-income (DTI) ratio is the ratio obtained by dividing the total monthly debt expense by the total monthly income of the borrower at the time the loan was originated or modified.

Fastest paying quartile of a cohort means the quartile of a cohort that has the fastest prepayment speeds as measured by the three-month CPR. The quartiles shall be determined by ranking outstanding TBA-eligible securities with the same coupon, maturity, and loan-origination year by the three-month CPR, excluding specified pools, and dividing each cohort into four parts such that the total unpaid principal balance of the pools included in each part is equal.

FICO refers to a credit score produced by FICO and used in the mortgage underwriting process.

Loan-to-value (LTV) ratio is the ratio, expressed as a percentage, obtained by dividing the amount of the loan at origination by the value of the property.

Specified pools for the purpose of this report, are those pools with one or more of the following characteristics at issuance: a maximum loan size of $200,000, a loan-to-value ratio at the time of loan origination of greater than 80 percent, a FICO score

of less than 700, where all loans finance investor-owned properties, or where all loans finance properties in the states of New York or Texas or the Commonwealth of Puerto Rico.

To-be-announced (TBA) market is a forward market for certain mortgage-backed securities, including those issued by the Enterprises.

Uniform Mortgage-Backed Security (UMBS) is the new single, common mortgage-backed security that the Enterprises issue, which replaced their previous offerings of TBA-eligible single class, fixed-rate mortgage-backed securities.

Unpaid principal balance (UPB) is the portion of a loan that the borrower has not yet paid back to the lender.

Weighted average coupon (WAC) refers to the average gross interest rates owed on the mortgages underlying the security weighted by the percentage of the security's unpaid principal balance that each mortgage represents.

Weighted average loan age (WALA) refers to the average number of months since the date of origination of mortgages underlying the security weighted by the percentage of the security's unpaid principal balance that each mortgage represents.

Weighted average maturity (WAM) refers to the average number of months remaining until the final payment is due on mortgages underlying the security weighted by the percentage of the security's unpaid principal balance that each mortgage represents.