



# PREPAYMENT MONITORING REPORT

First 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,<sup>1</sup> 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<sup>2</sup>, 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.<sup>3</sup>

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<sup>1</sup> To avoid double counting, only first-level securitizations are included in the analysis. Second-level securitizations (Megs, 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.

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<sup>2</sup> The TBA market is a forward market for certain mortgage-backed securities, including those issued by the Enterprises.

<sup>3</sup> 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 March 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.

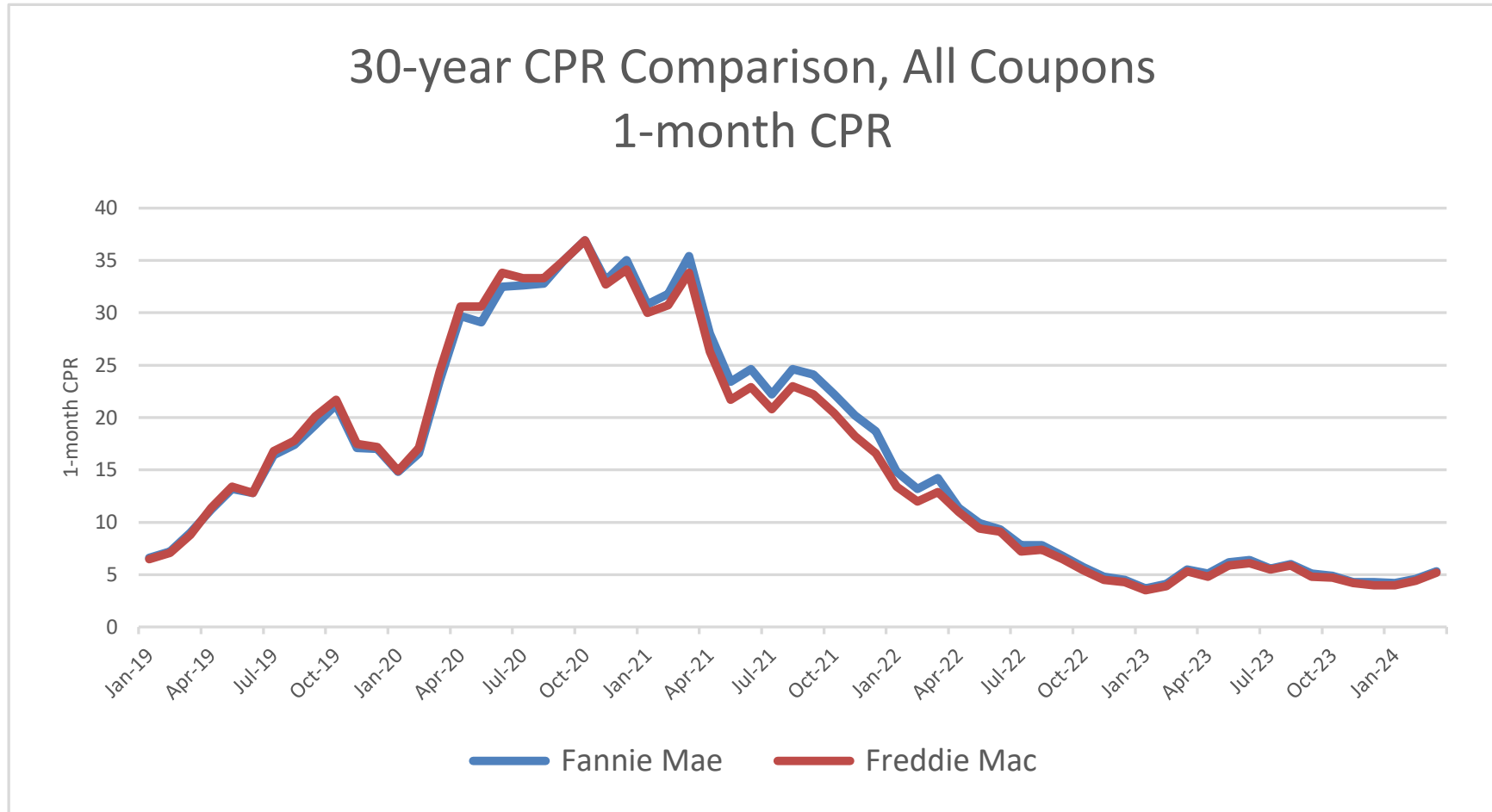
Charts 3a through 3m illustrate alignment with respect to the fastest paying quartiles of each cohort. FHFA uses these charts to assess alignment with respect to the fastest paying quartiles of cohorts of the Enterprises' TBA-eligible MBS on a historical basis. Chart 3a illustrates alignment in one-month 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.





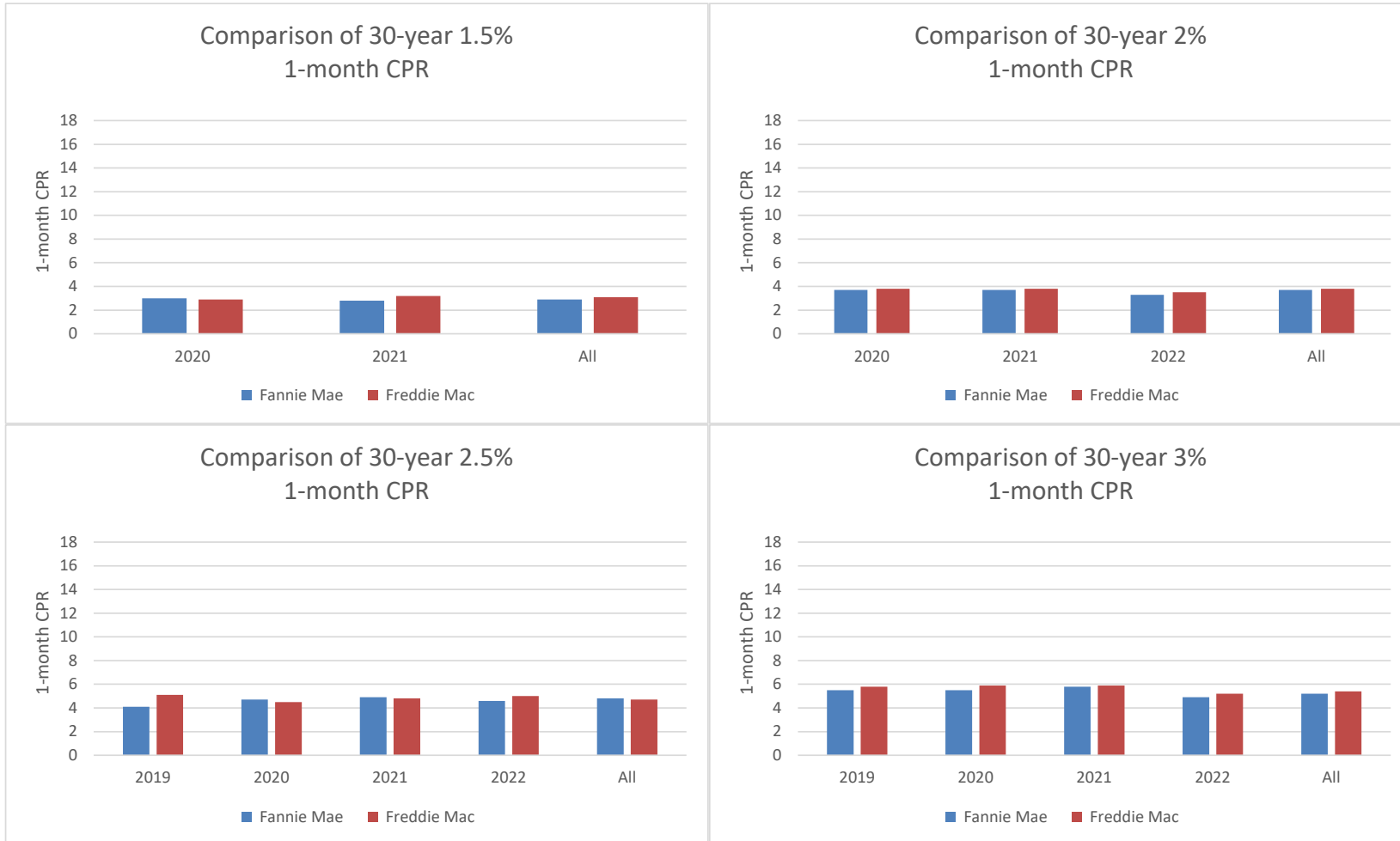
Chart 1: One-month CPR Comparison for 30-Year, for All TBA-Eligible MBS, All Coupons



Source: RiskSpan calculations from data available publicly as of April 2024. Calculations exclude new issuance with no one-month CPR information.



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



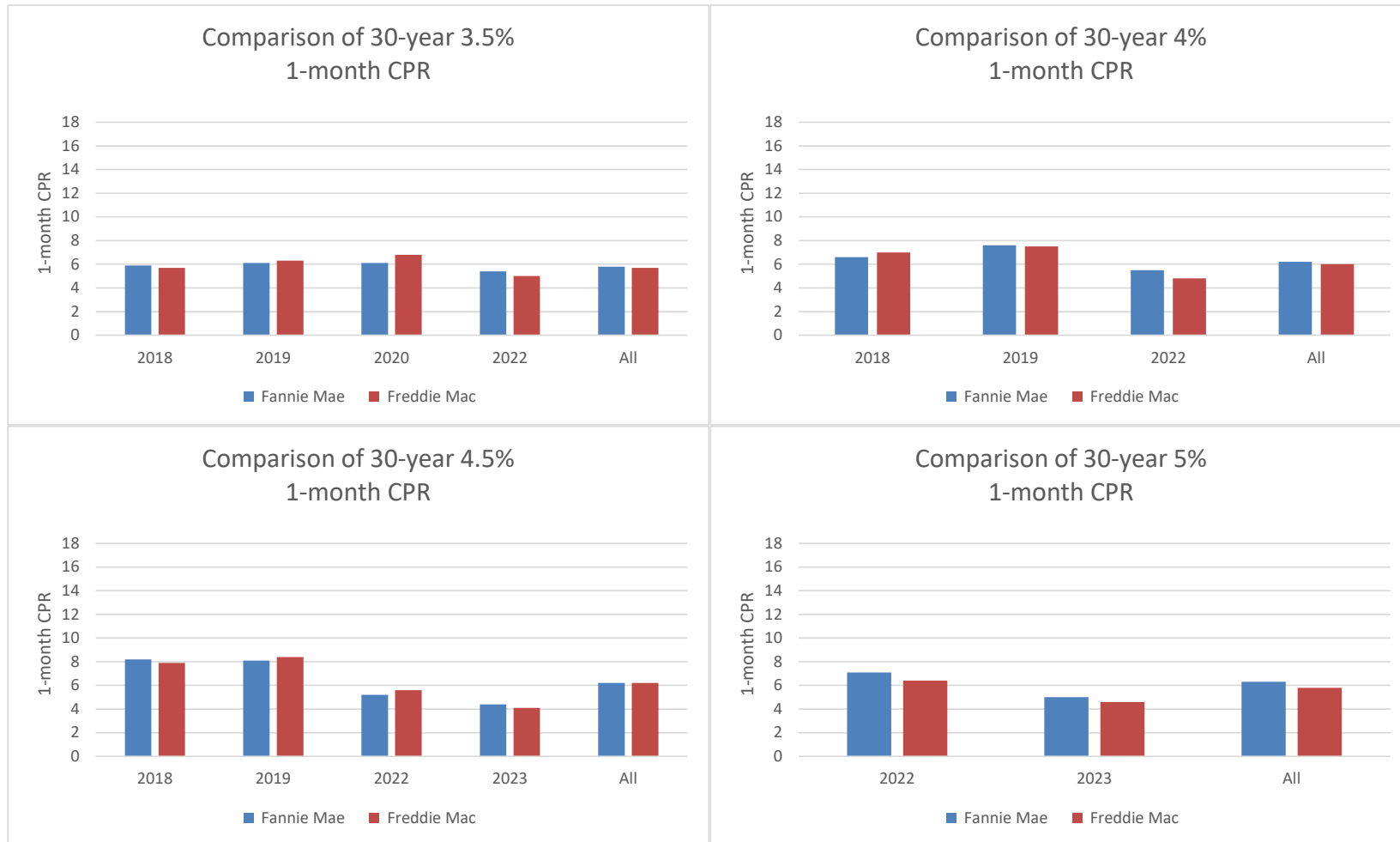
\* The 1.5 percent coupon cohorts for 2018, 2019, 2022, and 2023; the 2 percent coupon cohorts for 2018, 2019, and 2023; the 2.5 percent coupon cohorts for 2018 and 2023; and the 3 percent coupon cohorts for 2018 and 2023, are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. Calculations exclude new issuance with no one-month CPR information.





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

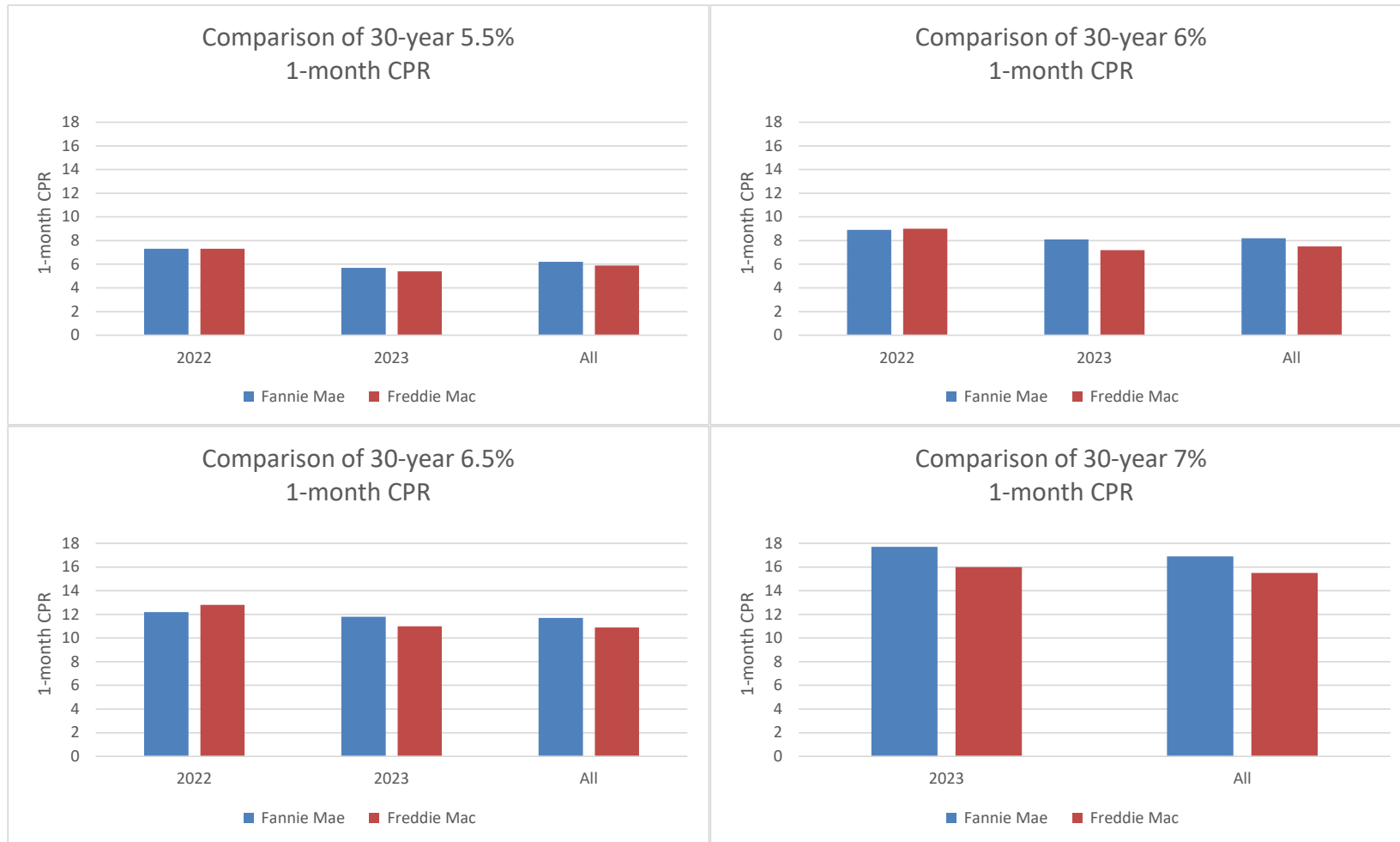


\* The 3.5 percent coupon cohorts for 2021 and 2023; the 4 percent coupon cohorts for 2020, 2021, and 2023; the 4.5 percent coupon cohorts for 2020 and 2021; and the 5 percent coupon cohorts for 2018, 2019, 2020, and 2021, are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. Calculations exclude new issuance with no one-month CPR information.



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



\* The 5.5 percent coupon cohorts for 2018, 2019, 2020, and 2021; the 6 percent coupon cohorts for 2018, 2019, 2020, and 2021; the 6.5 percent coupon cohorts for 2018, 2019, 2020, and 2021; and the 7 percent coupon cohorts for 2018, 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 April 2024. 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 April 2024. Calculations exclude new issuance with no one-month CPR information.



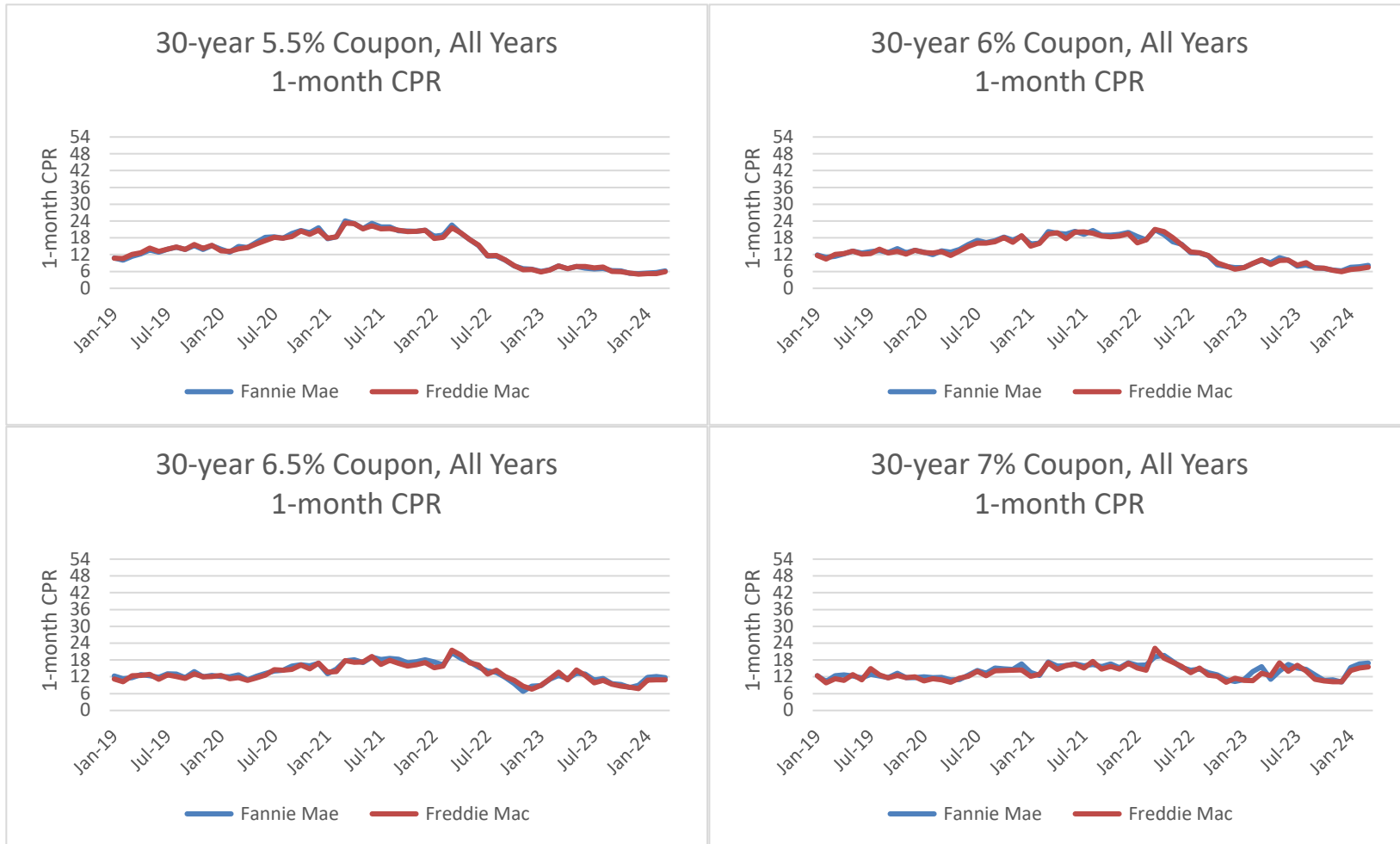
Chart 3a: One-month CPR on All 30-year, TBA-eligible MBS by Coupon



Source: RiskSpan calculations from data available publicly as of April 2024. Calculations exclude new issuance with no one-month CPR information.



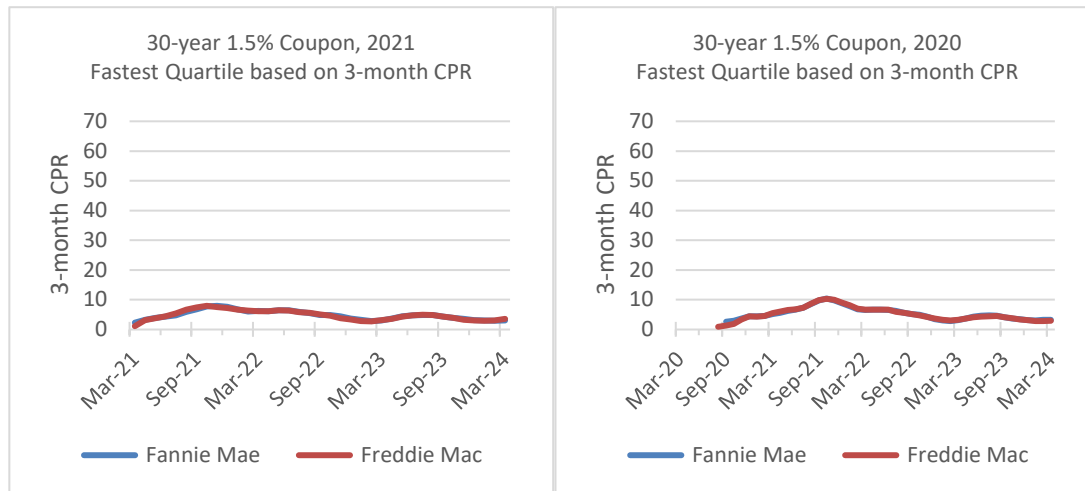
Chart 3a: One-month CPR on All 30-year, TBA-eligible MBS by Coupon



Source: RiskSpan calculations from data available publicly as of April 2024. 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\***

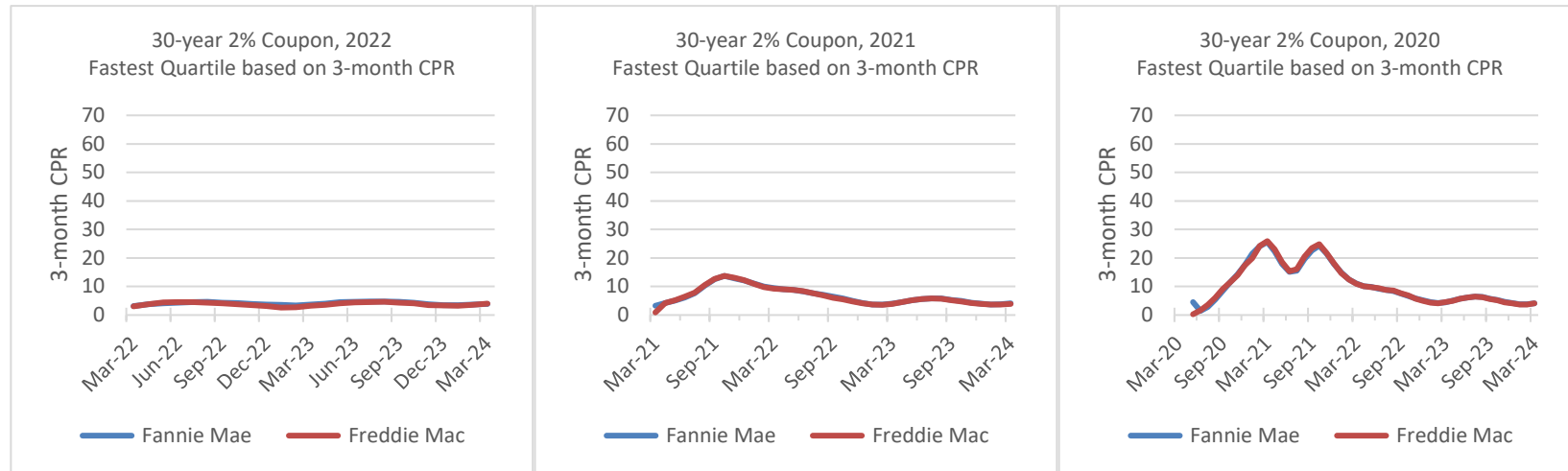


\* The 2018, 2019, 2022, and 2023 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. 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\***



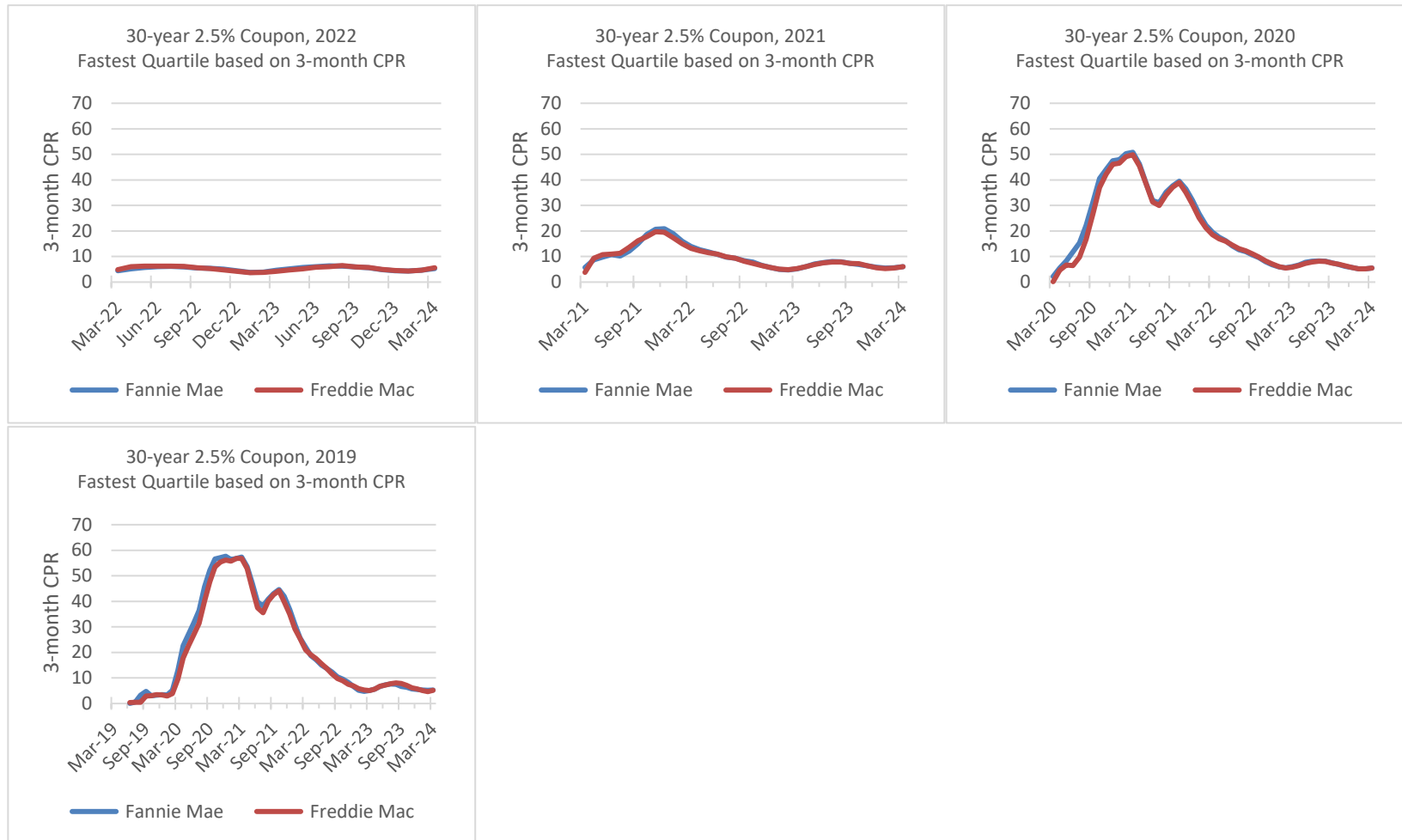
\* The 2018, 2019, and 2023 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. 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\***

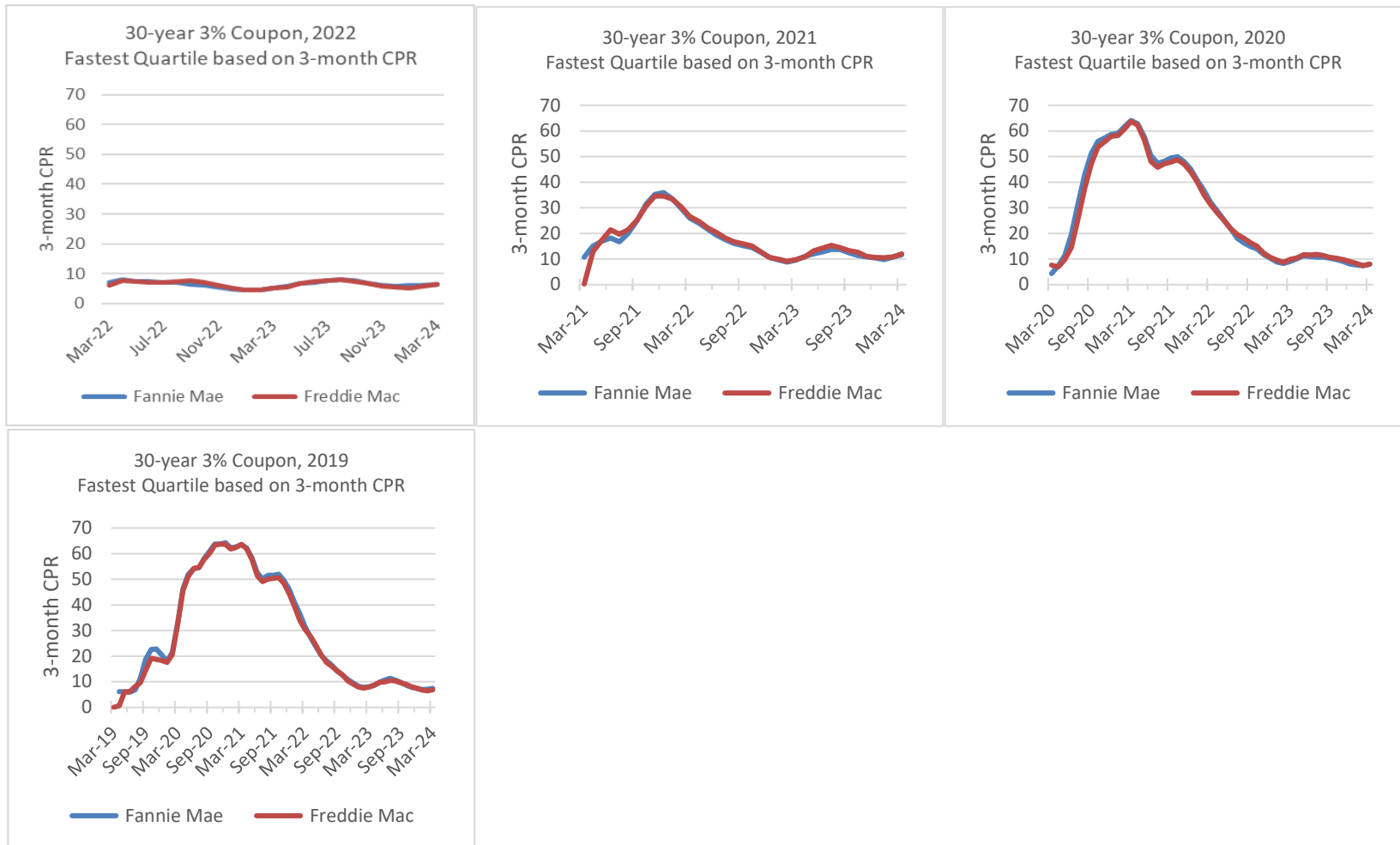


\* The 2018 and 2023 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. 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\***

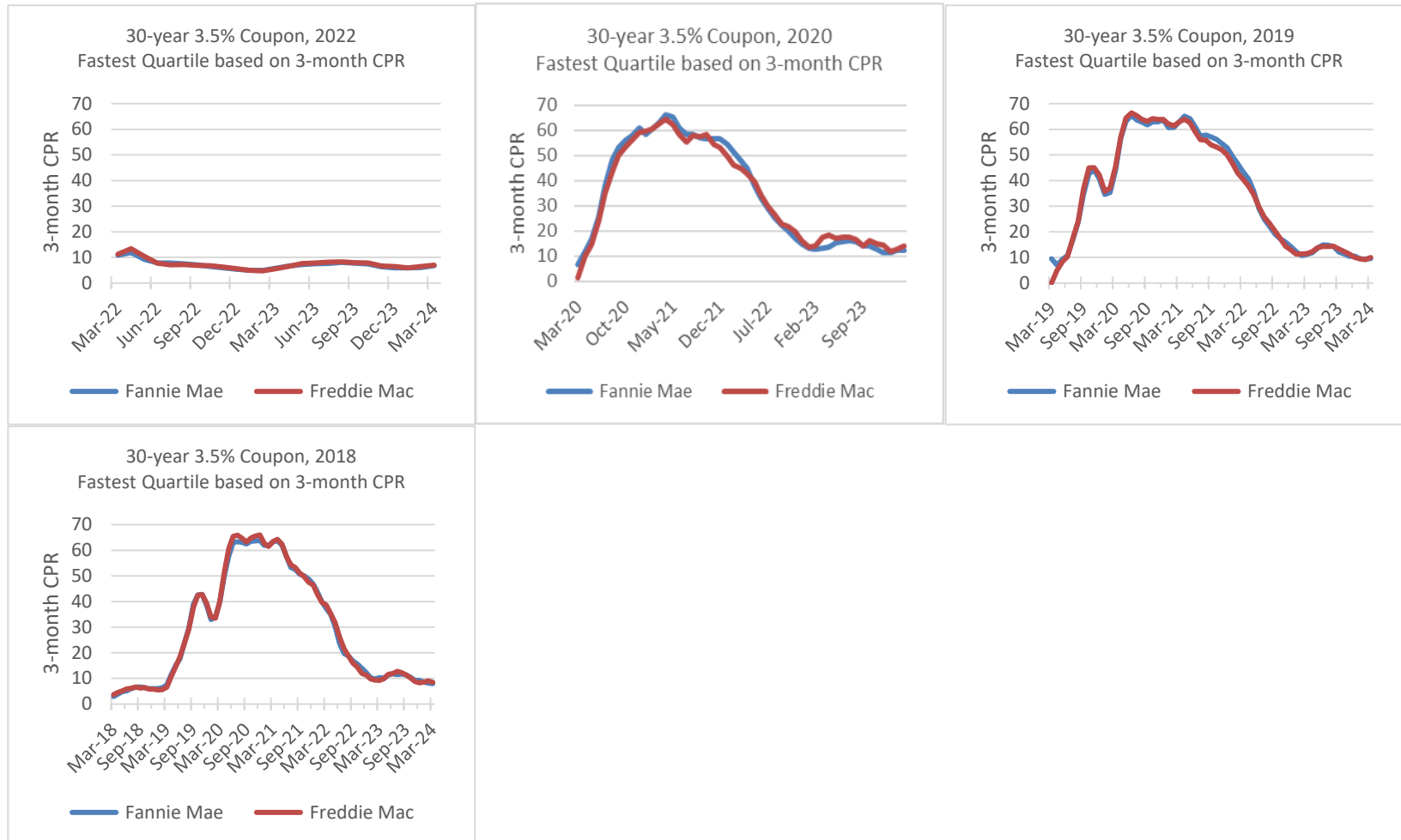


\* The 2018 and 2023 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. 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**

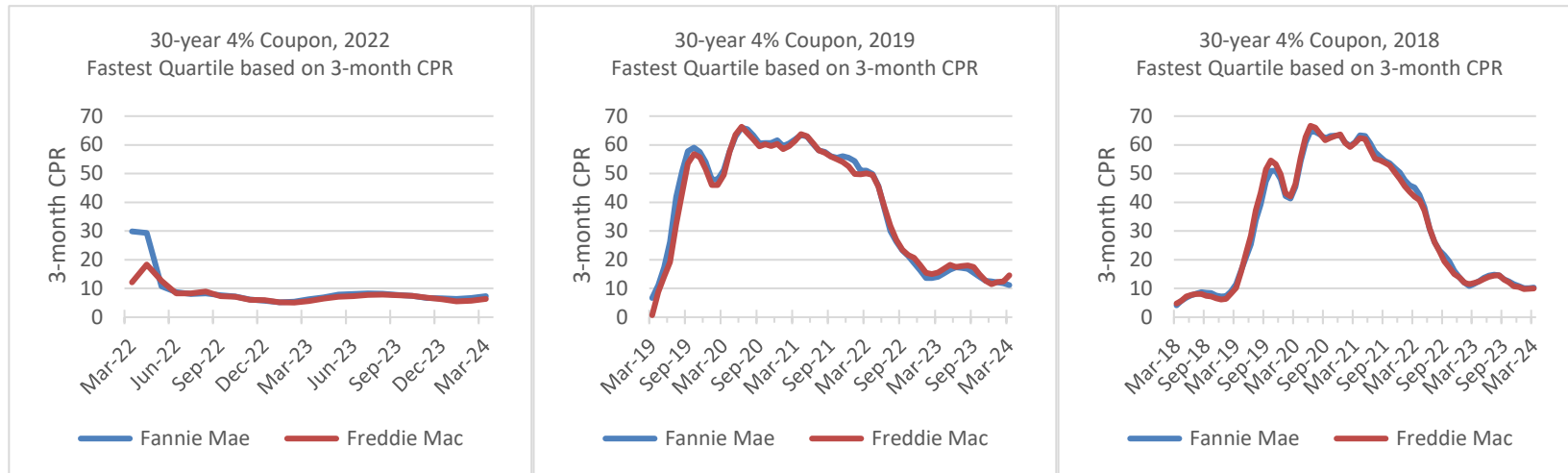


\* The 2021 and 2023 cohorts are omitted because it has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. Calculations exclude new issuance with no three-month CPR information.



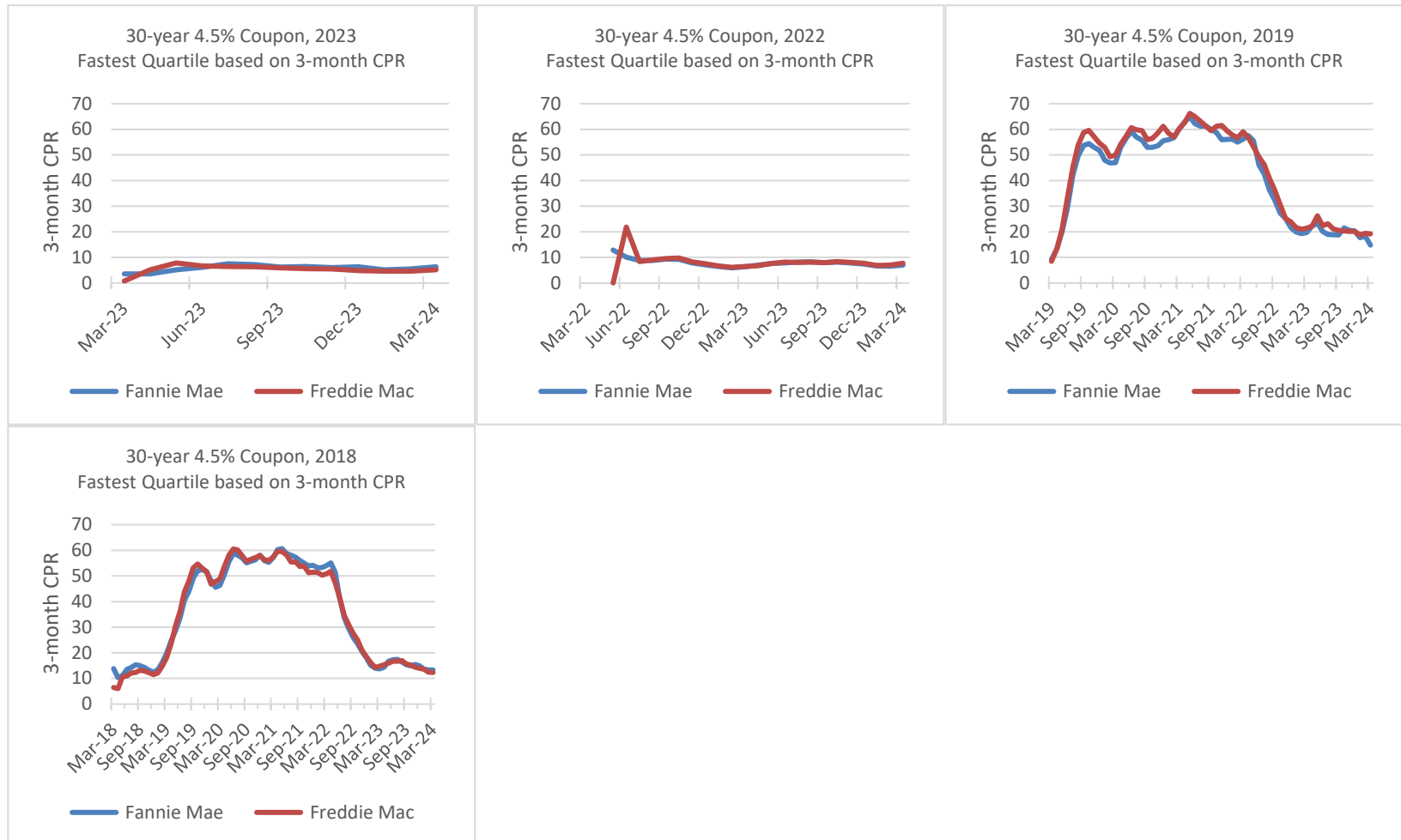
**Chart 3g: Three-month CPR on 30-year Fastest Paying Quartiles, 4.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year**



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

Source: RiskSpan calculations from data available publicly as of April 2024. 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**

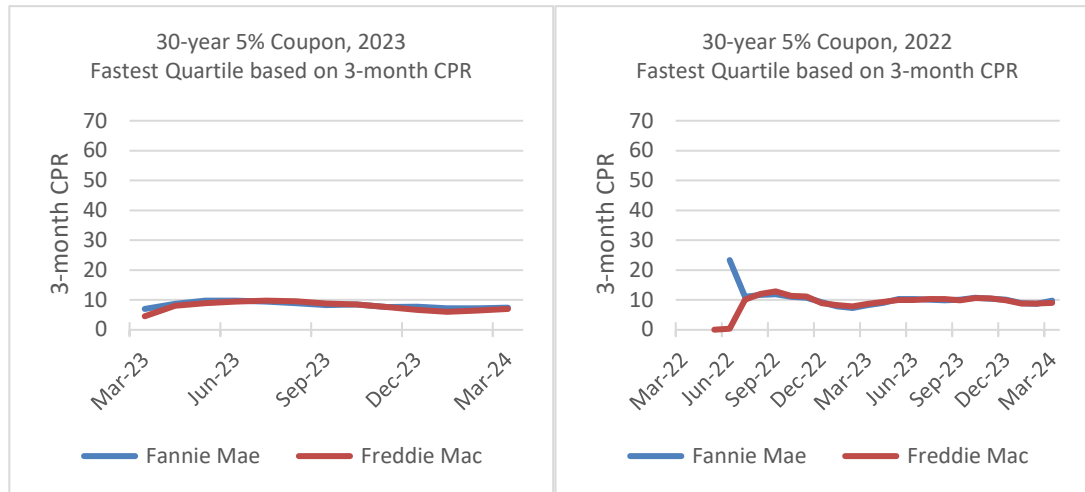


\* The 2020 and 2021 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. 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**

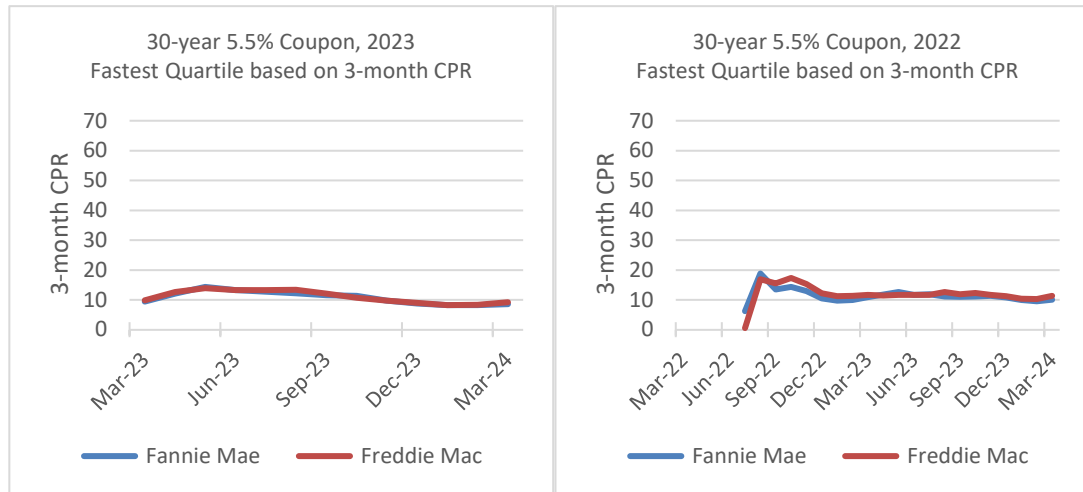


\* The 2018, 2019, 2020, and 2021 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. 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**



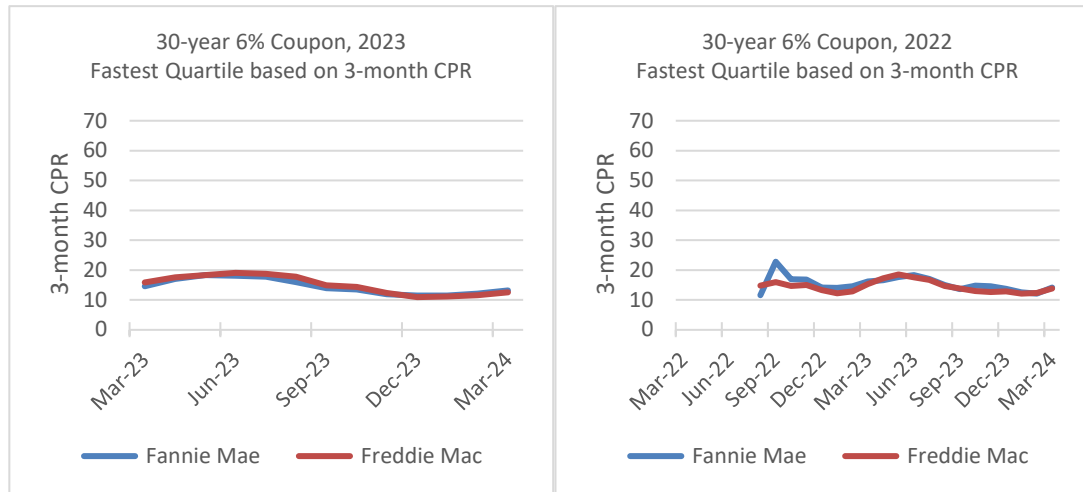
\* The 2018, 2019, 2020, and 2021 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. 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**

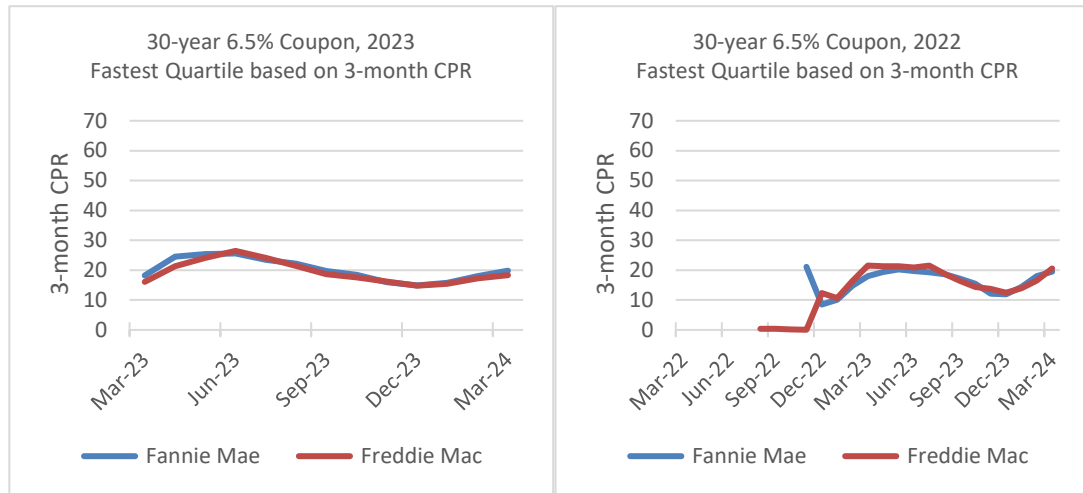


\* The 2018, 2019, 2020, and 2021 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. Calculations exclude new issuance with no three-month CPR information.



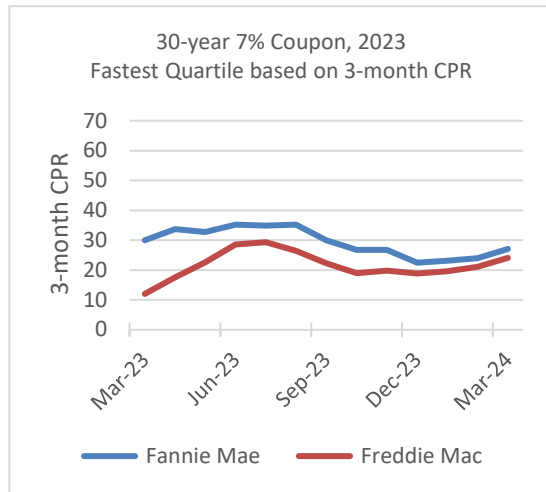
**Chart 3I: Three-month CPR on 30-year Fastest Paying Quartiles, 6.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year**



\* The 2018, 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 April 2024. 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**

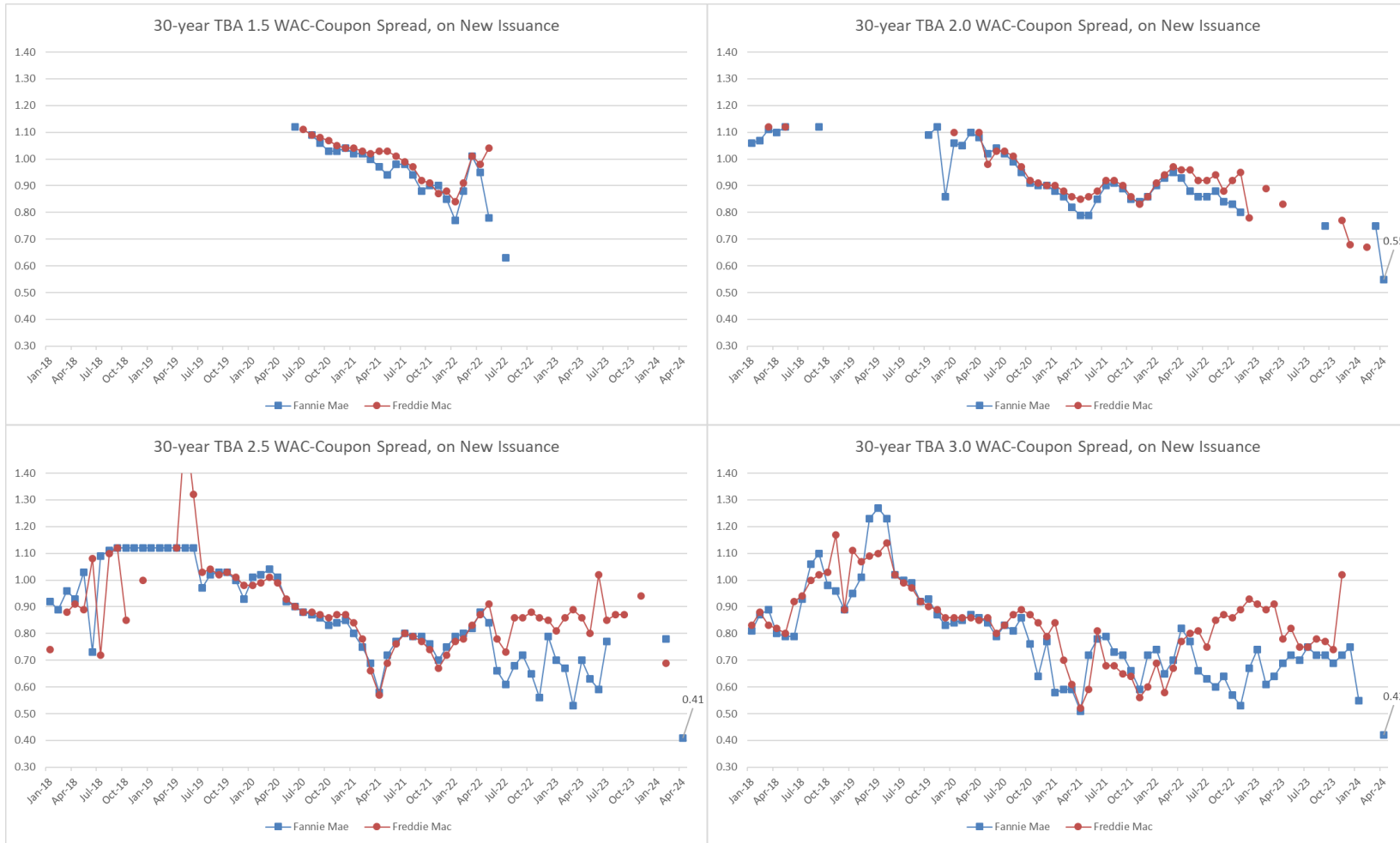


\* The 2018, 2019, 2020, 2021, and 2022 cohorts are omitted because each has a combined UPB below the \$10 billion threshold.

Source: RiskSpan calculations from data available publicly as of April 2024. Calculations exclude new issuance with no three-month CPR information.



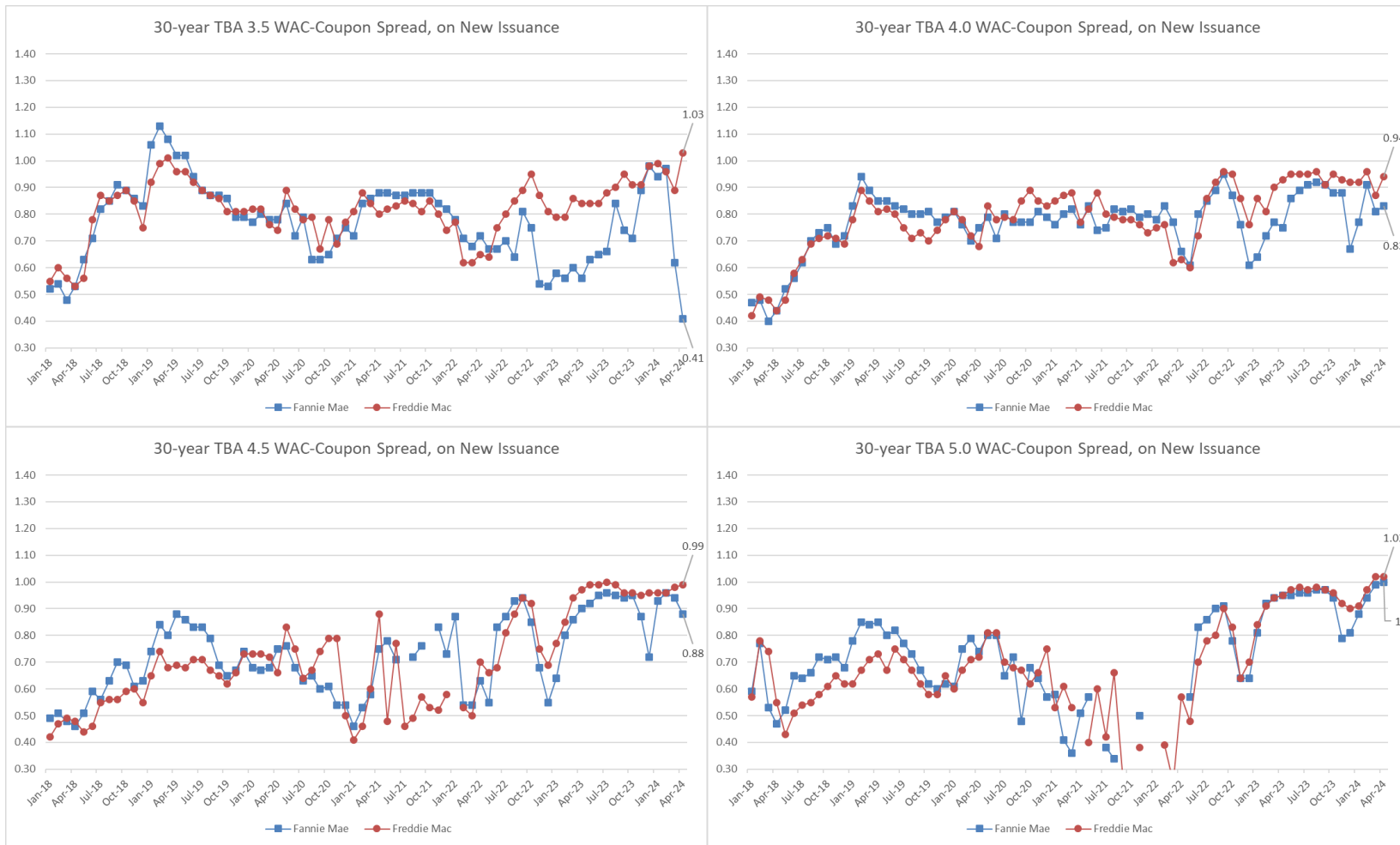
Chart 4: Comparison of Weighted Average Loan Rate to Coupon Spread on New 30-year MBS Issuance



Source: RiskSpan calculations from data available publicly as of April 2024. 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.



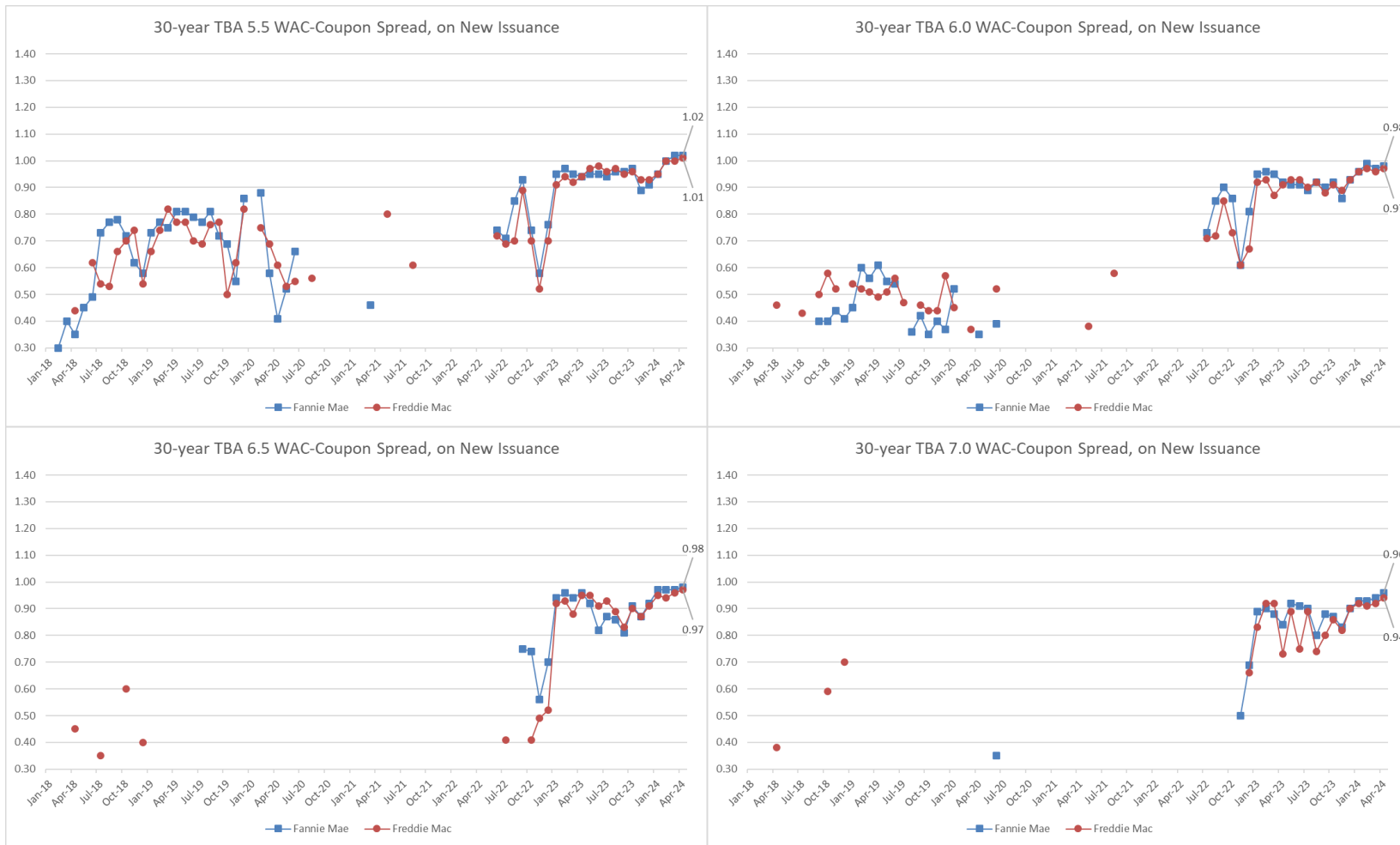
Chart 4: Comparison of Weighted Average Loan Rate to Coupon Spread on New 30-year MBS Issuance



Source: RiskSpan calculations from data available publicly as of April 2024. 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 April 2024. 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.





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)					
										March		February		January	
		FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
1.5	2020	2.54	2.54	308	311	42	41	8.6	10.8	3.20	2.90	3.20	2.80	3.00	2.80
	2021	2.48	2.52	317	317	37	36	9.4	15.6	3.00	3.50	2.90	3.00	3.00	2.90
2	2020	2.91	2.93	309	309	41	42	53.8	45.7	4.10	4.10	3.80	3.70	3.80	3.70
	2021	2.87	2.87	320	319	33	35	94	89.9	4.10	3.90	3.80	3.60	3.70	3.60
	2022	2.95	2.96	329	330	26	25	9.7	10.3	3.90	4.00	3.70	3.50	3.40	3.20
2.5	2019	3.49	3.50	296	296	54	54	3.5	3	5.30	5.20	5.20	4.60	5.30	5.00
	2020	3.39	3.41	305	304	45	46	34.5	23.1	5.50	5.50	5.10	5.10	5.20	5.10
	2021	3.27	3.23	323	324	32	31	47.2	43.6	6.00	6.00	5.60	5.50	5.50	5.30
	2022	3.31	3.34	329	330	26	26	16	14.7	5.30	5.60	4.60	4.60	4.30	4.30
3	2019	3.93	3.93	295	295	55	55	7.1	6.6	7.40	6.90	7.10	6.40	7.00	6.80
	2020	3.86	3.86	305	304	46	48	7.6	4.4	7.90	8.00	7.40	7.40	7.60	8.20
	2021	3.78	3.72	323	324	32	30	2.8	2.5	11.70	12.00	10.70	10.80	9.80	10.50
	2022	3.75	3.72	331	331	25	25	12.4	10.9	6.40	6.50	6.10	5.70	6.00	5.10
3.5	2018	4.13	4.13	275	277	72	71	1.9	1.3	7.90	8.50	8.10	9.00	8.60	8.60
	2019	4.46	4.42	292	292	58	57	3	2.3	9.50	10.00	9.30	9.10	9.40	9.40
	2020	4.38	4.37	303	303	48	49	0.8	0.5	12.40	14.10	12.30	12.80	11.30	11.80
	2022	4.23	4.17	332	332	24	24	11.1	9	6.80	7.00	6.00	6.40	5.90	5.90
4	2018	4.69	4.69	280	280	68	68	3.8	2.5	10.30	10.00	10.10	9.90	10.10	9.80
	2019	4.90	4.85	291	294	60	57	1.4	0.9	11.10	14.60	11.80	12.40	12.10	12.20
	2022	4.75	4.76	333	333	22	22	12.3	11.6	7.30	6.30	6.60	5.70	6.30	5.50
4.5	2018	5.24	5.09	283	282	68	68	1.1	0.9	13.30	12.30	13.30	12.40	13.60	13.60
	2019	5.40	5.38	292	292	59	59	0.4	0.3	14.80	19.20	18.30	19.40	17.70	18.70
	2022	5.37	5.30	335	334	20	21	12.4	11.5	7.00	7.70	6.50	7.00	6.60	6.90
	2023	5.41	5.46	343	345	12	10	2.7	2.1	6.30	5.20	5.50	4.60	5.10	4.70
5	2022	5.84	5.80	335	335	20	20	7.9	7.6	9.70	9.00	8.70	8.80	8.90	8.80
	2023	5.95	5.97	342	344	12	10	10.1	8.9	7.40	7.00	7.20	6.40	7.20	6.00

Source: RiskSpan calculations from data available publicly as of April 2024. 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)					
										March		February		January	
		FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
5.5	2022	6.28	6.21	336	336	19	18	4.5	3.7	10.10	11.40	9.50	10.30	10.00	10.40
	2023	6.45	6.45	342	342	12	12	13	13.3	8.60	9.20	8.20	8.40	8.30	8.30
6	2022	6.93	6.89	337	337	16	16	2.1	1.8	14.10	13.80	12.10	12.30	12.50	12.10
	2023	6.93	6.93	344	347	10	7	11.1	11.4	13.20	12.50	12.10	11.60	11.50	11.20
6.5	2022	7.40	7.41	337	337	16	16	1	0.7	19.50	20.60	18.00	16.50	14.30	13.90
	2023	7.44	7.44	347	349	7	6	8.8	8.1	19.80	18.30	18.00	17.20	15.70	15.90
7	2023	7.88	7.91	346	349	7	5	2.7	2.9	27.10	24.10	24.00	21.40	23.10	19.60

Source: RiskSpan calculations from data available publicly as of April 2024. 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	3.1		2.3		2.2		1.7	
Freddie Mac	3.3		2.4		2.4		1.9	
Difference	-0.2		-0.1		-0.2		-0.2	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	39	37	41	40	40	40	37	38
WAC	2.51	2.52	2.53	2.54	2.51	2.53	2.46	2.52
ALS	363	362	377	371	378	376	370	374
FICO	774	772	776	773	776	774	773	772

30-year, 2.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	5.7		3.9		3.6		2.4	
Freddie Mac	5.8		4.0		3.7		2.3	
Difference	-0.1		-0.1		-0.1		0.1	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	36	33	32	34	42	40	35	35
WAC	3.32	3.29	3.30	3.31	3.35	3.33	3.32	3.32
ALS	310	322	358	352	346	348	325	330
FICO	748	747	747	745	759	756	753	753

30-year, 2.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	4.1		2.9		2.8		2.1	
Freddie Mac	4.0		3.0		2.9		2.3	
Difference	0.1		-0.1		-0.1		-0.2	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	37	38	39	37	36	37	35	32
WAC	2.89	2.89	2.88	2.89	2.86	2.89	2.89	2.91
ALS	322	332	357	371	371	368	352	358
FICO	765	764	768	765	767	766	766	763

30-year, 3.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	7.8		4.7		3.8		1.7	
Freddie Mac	7.7		4.8		3.7		1.7	
Difference	0.1		-0.1		0.1		0.0	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	43	42	45	47	35	30	32	32
WAC	3.84	3.82	3.84	3.84	3.82	3.82	3.77	3.80
ALS	300	300	322	325	355	367	326	330
FICO	739	736	744	748	748	750	748	747

\* 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	8.3		5.0		3.8		1.9	
Freddie Mac	8.6		4.3		3.6		1.6	
Difference	-0.3		0.7		0.2		0.3	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	48	45	30	39	34	25	31	30
WAC	4.29	4.25	4.25	4.25	4.21	4.28	4.22	4.30
ALS	299	304	365	346	356	392	338	318
FICO	738	736	738	742	753	753	748	745

30-year, 4.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	8.1		4.7		3.8		1.5	
Freddie Mac	8.5		4.2		3.7		1.5	
Difference	-0.4		0.5		0.1		0.0	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	34	31	21	20	18	19	19	20
WAC	5.32	5.27	5.40	5.38	5.35	5.40	5.35	5.39
ALS	332	339	403	409	395	411	345	336
FICO	736	740	753	756	756	757	754	752

30-year, 4.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	8.8		5.0		3.6		1.6	
Freddie Mac	8.4		4.1		3.1		1.5	
Difference	0.4		0.9		0.5		0.1	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	53	52	30	22	24	22	27	26
WAC	4.74	4.74	4.79	4.82	4.87	4.90	4.81	4.86
ALS	306	298	363	394	397	409	340	337
FICO	735	740	744	750	756	758	751	752

30-year, 5.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	9.1		5.2		4.2		1.5	
Freddie Mac	8.4		4.6		3.8		1.5	
Difference	0.7		0.6		0.4		0.0	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	20	20	15	15	12	12	14	15
WAC	5.87	5.85	5.85	5.84	5.93	5.96	5.89	5.90
ALS	349	358	411	402	405	441	325	324
FICO	740	743	756	757	762	764	754	752

\* 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	9.1		5.8		5.2		1.8	
Freddie Mac	9.7		5.4		4.6		1.7	
Difference	-0.6		0.4		0.6		0.1	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	16	14	12	11	9	10	12	12
WAC	6.34	6.35	6.43	6.45	6.46	6.44	6.42	6.43
ALS	356	353	422	421	430	443	311	323
FICO	747	750	759	760	765	761	755	753

30-year, 6.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	19.9		14.8		12.7		5.4	
Freddie Mac	18.2		13.9		12.0		2.8	
Difference	1.7		0.9		0.7		2.6	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	6	8	8	6	9	8	8	7
WAC	7.45	7.43	7.42	7.41	7.30	7.34	7.37	7.39
ALS	418	395	426	441	418	400	293	289
FICO	756	751	754	756	750	747	748	746

30-year, 6.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	13.3		8.9		7.9		2.8	
Freddie Mac	12.5		7.8		7.1		2.1	
Difference	0.8		1.1		0.8		0.7	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	11	9	6	8	10	10	10	10
WAC	6.93	6.93	6.95	6.93	6.87	6.87	6.90	6.89
ALS	388	382	430	433	433	408	280	292
FICO	754	756	763	759	757	754	751	748

30-year, 7.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	27.1		21.3		18.9		7.1	
Freddie Mac	24.2		18.6		17.0		4.2	
Difference	2.9		2.7		1.9		2.9	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	7	6	6	5	4	6	5	5
WAC	7.89	7.90	7.86	7.91	7.93	7.86	7.88	7.88
ALS	384	398	420	435	422	412	281	291
FICO	740	747	746	751	753	740	749	742

\* 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: Q1 2024 30-year, TBA-eligible MBS Total Industry Quarterly Issuance Report\*

	2.00%		2.50%		3.00%		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	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
Loan Count	287	4	935	9	685	505	149	2,262	484	3,813	1,829	17,700	13,471	46,405	48,514	50,500	52,269	39,410	40,600	14,233	15,892	3,738	3,631	78	117	180,551	176,969	
UPB (billions)	0.10	0.00	0.31	0.00	0.18	0.13	0.05	0.81	0.18	1.39	0.67	5.91	4.79	15.59	16.84	17.42	16.57	13.18	12.23	4.46	4.51	1.00	0.90	0.02	0.03	60.51	56.76	
% of Production Volume	0.20	0.00	0.60	0.00	0.30	0.20	0.10	1.30	0.30	2.30	1.20	9.80	8.40	25.80	29.60	28.80	29.10	21.80	21.50	7.30	7.90	1.60	1.60	0.00	0.00	100.00	100.00	
WA Note Rate (%)	2.56	2.67	2.92	3.19	3.42	4.13	4.47	4.85	4.92	5.42	5.48	5.98	6.01	6.51	6.51	6.98	6.96	7.47	7.45	7.94	7.92	8.42	8.39	8.74	8.80	6.85	6.93	
WA Loan Age (mos.)	37	3	40	2	46	35	2	6	2	3	1	2	1	1	1	1	1	2	2	2	2	2	2	3	2	2	1	
WA FICO	771	770	762	765	751	745	747	759	754	762	758	762	762	762	761	757	753	752	746	745	739	735	728	748	734	757	753	
WALTV	0.66	0.61	0.7	0.78	0.75	0.74	0.72	0.8	0.79	0.79	0.78	0.77	0.77	0.78	0.78	0.78	0.79	0.79	0.79	0.78	0.79	0.79	0.79	0.85	0.81	0.78	0.78	
%FICO>680	1.00	0.00	2.00	0.00	5.00	8.00	9.00	4.00	6.00	3.00	5.00	3.00	4.00	3.00	4.00	5.00	6.00	6.00	9.00	9.00	12.00	14.00	17.00	8.00	18.00	5.00	7.00	
%FICO>740	82.00	81.00	72.00	77.00	64.00	58.00	60.00	71.00	68.00	75.00	73.00	76.00	75.00	76.00	75.00	71.00	67.00	66.00	59.00	60.00	53.00	51.00	43.00	57.00	51.00	71.00	67.00	
%LTV>80	15.00	0.00	17.00	24.00	29.00	31.00	30.00	43.00	41.00	41.00	40.00	40.00	38.00	42.00	42.00	41.00	44.00	41.00	42.00	37.00	40.00	38.00	39.00	61.00	49.00	41.00	42.00	
%FICO>680 & LTV>80	0.00	0.00	1.00	0.00	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	4.00	2.00	4.00	3.00	5.00	6.00	7.00	1.00	2.00	
%DTI>40	27.00	19.00	31.00	49.00	38.00	44.00	50.00	47.00	59.00	48.00	54.00	48.00	51.00	47.00	49.00	48.00	52.00	50.00	54.00	51.00	56.00	49.00	55.00	57.00	54.00	49.00	52.00	
%Purchase	28.00	7.00	32.00	14.00	41.00	34.00	19.00	92.00	90.00	97.00	96.00	90.00	88.00	87.00	88.00	86.00	87.00	86.00	85.00	81.00	82.00	76.00	73.00	87.00	77.00	86.00	87.00	
%Rate/Term	66.00	93.00	54.00	63.00	38.00	51.00	81.00	7.00	10.00	2.00	3.00	6.00	8.00	6.00	6.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	3.00	1.00	2.00	6.00	6.00	
%Cash out	6.00	0.00	13.00	23.00	21.00	16.00	0.00	1.00	0.00	1.00	1.00	5.00	5.00	7.00	5.00	9.00	8.00	9.00	10.00	14.00	14.00	20.00	23.00	12.00	21.00	8.00	8.00	
%Owner Occupied	96.00	100.00	90.00	90.00	83.00	89.00	94.00	97.00	96.00	95.00	96.00	97.00	98.00	96.00	98.00	93.00	95.00	88.00	88.00	82.00	81.00	69.00	70.00	66.00	62.00	92.00	93.00	
%Second Home	3.00	0.00	7.00	0.00	5.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	3.00	3.00	5.00	5.00	11.00	8.00	16.00	22.00	2.00	2.00		
%Investor	1.00	0.00	3.00	10.00	12.00	8.00	5.00	2.00	3.00	4.00	3.00	3.00	1.00	4.00	2.00	5.00	4.00	9.00	9.00	14.00	14.00	20.00	22.00	19.00	16.00	6.00	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 April 2024.



## 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.

