PREPAYMENT MONITORING REPORT

Fourth Quarter 2021

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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]

[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.

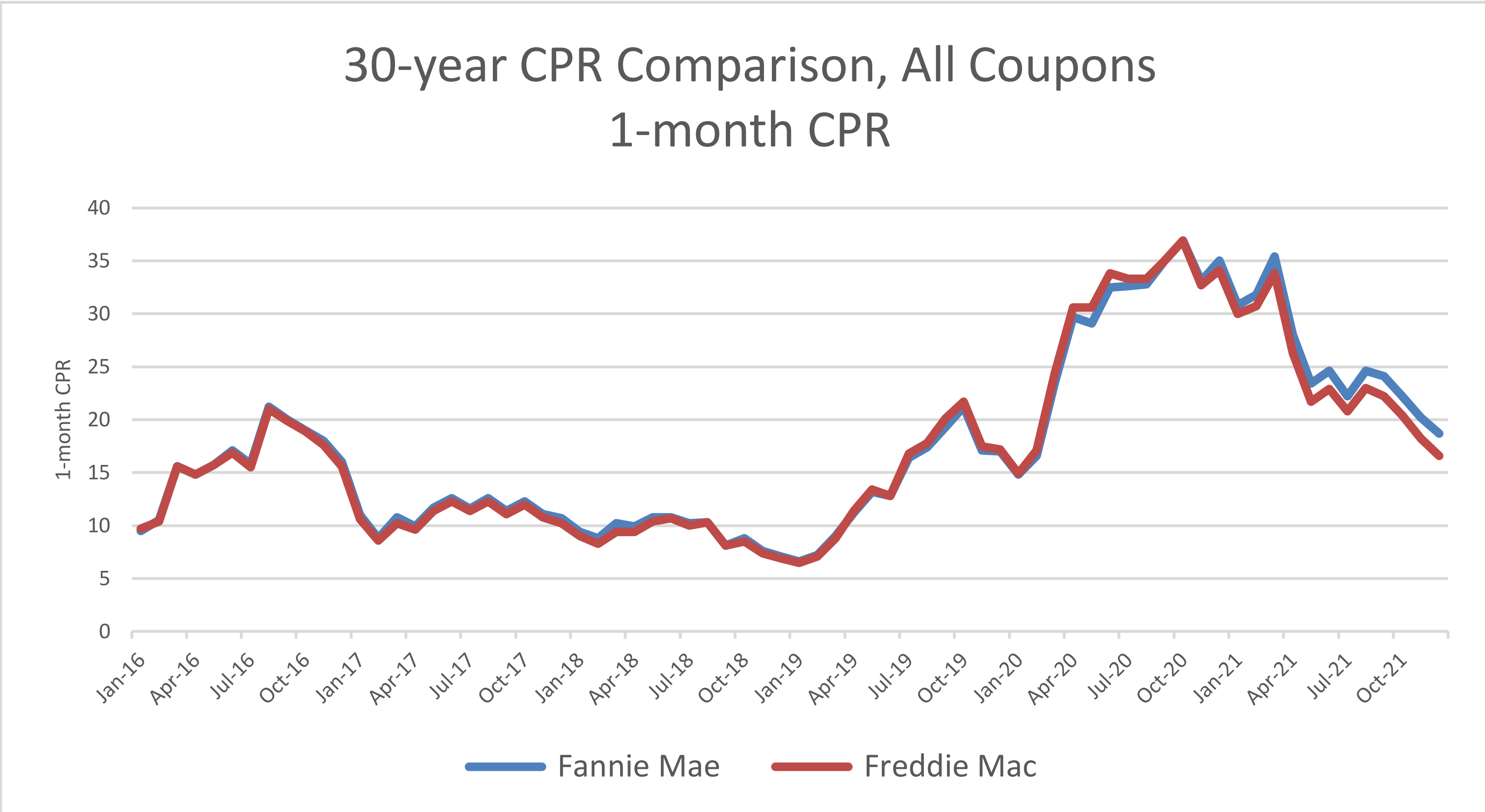
Chart 1 compares one-month CPR for both Enterprises TBA-eligible 30-year securities for the current year and the prior six years.

Chart 2 illustrates the comparison of pool loan-origination years for a given TBA-eligible MBS coupon. Chart 2 shows December 2021 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%, and 4.5%) and the six loan-origination years prior to the current calendar year.

Charts 3a through 3h 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 3h 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



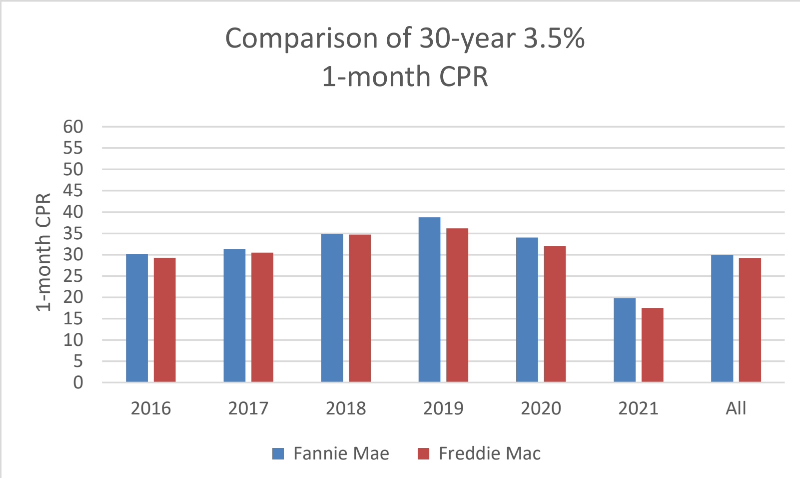
Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no one-month CPR information.

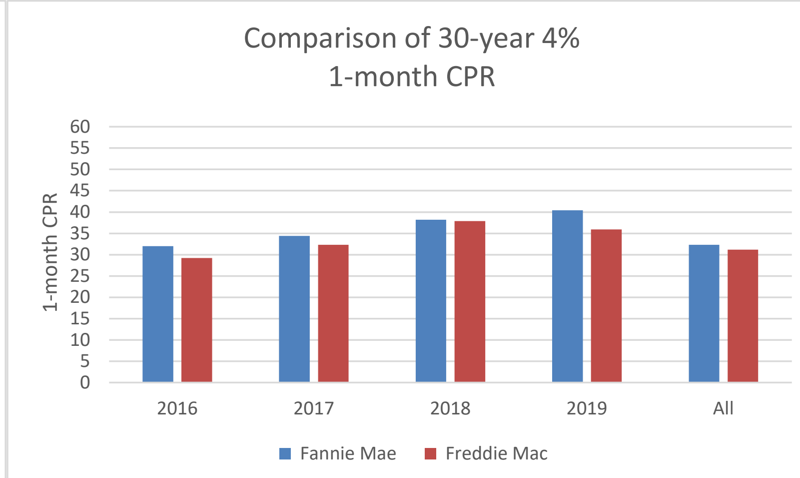
Chart 2: December 2021 One-month CPR on All 30-year, TBA-eligible MBS by Coupon and Loan-Origination Year*

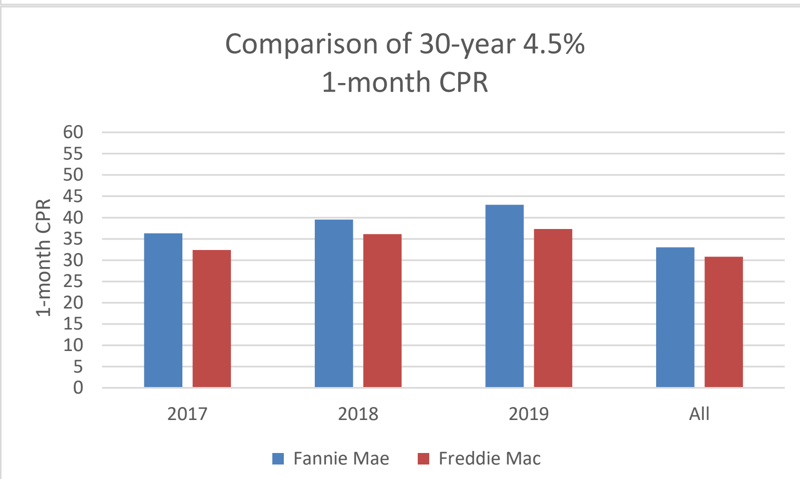
* The 1.5 percent coupon cohorts for 2016, 2017, 2018, and 2019; the 2 percent coupon cohorts for 2016, 2017, 2018, and 2019; the 2.5 percent coupon cohorts for 2016, 2017, and 2018; and the 3 percent coupon cohort for 2018, are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no one-month CPR information.

Chart 2: December 2021 One-month CPR on All 30-year, TBA-eligible MBS by Coupon and Loan-Origination Year*



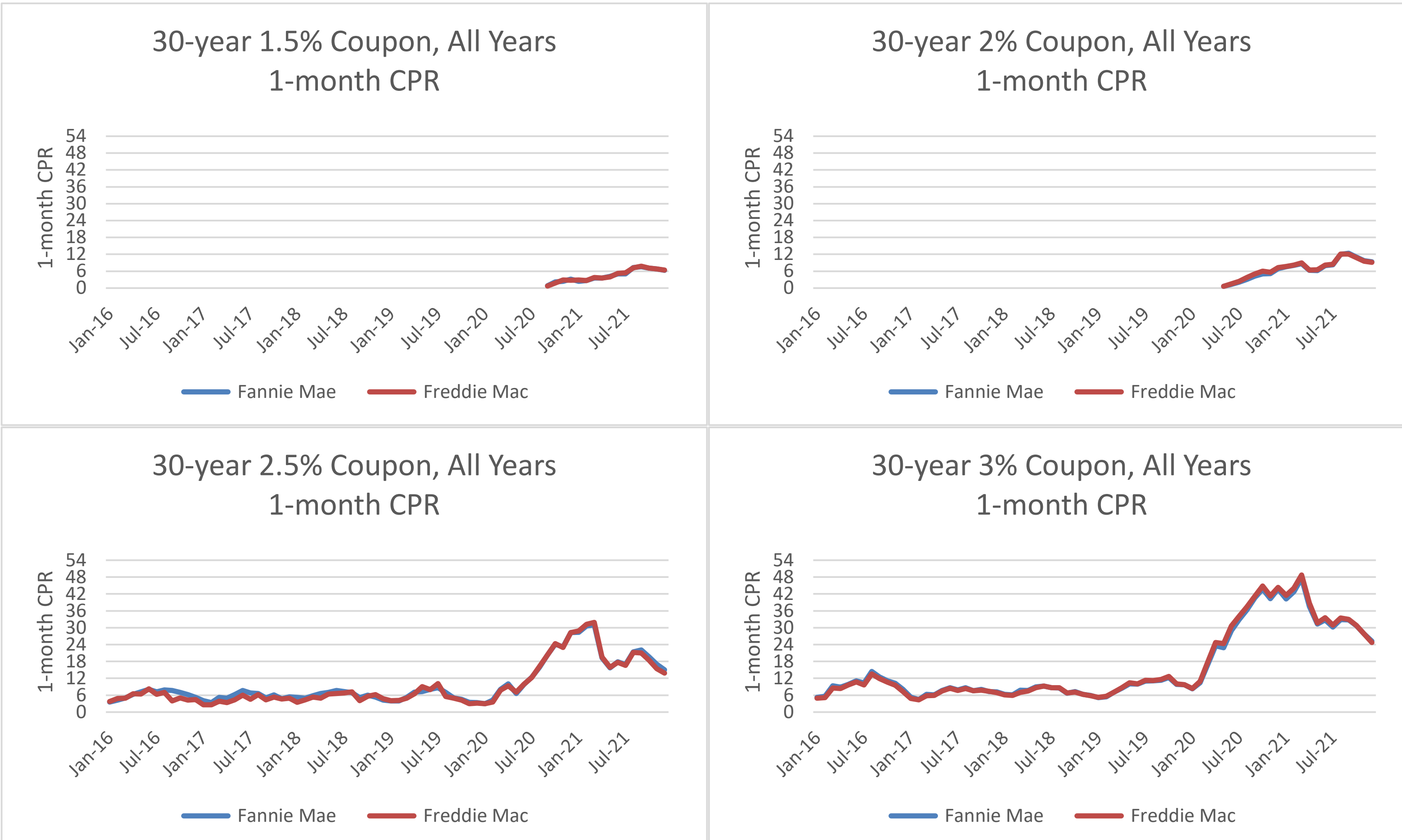




* The 4 percent coupon cohorts for 2020 and 2021, and the 4.5 percent coupon cohorts for 2016, 2020, and 2021, are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no one-month CPR information.

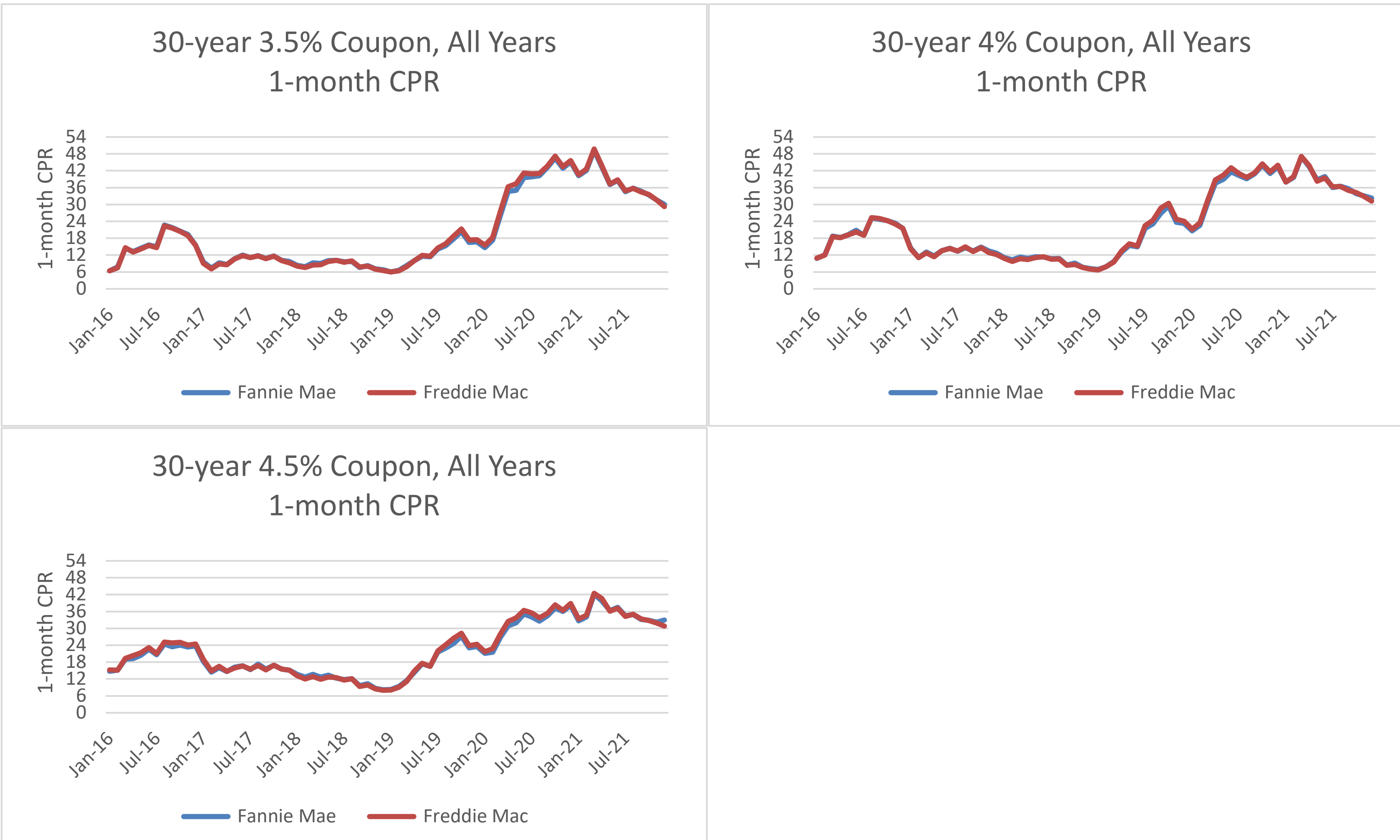
Chart 3a: One-month CPR on All 30-year, TBA-eligible MBS by Coupon*



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

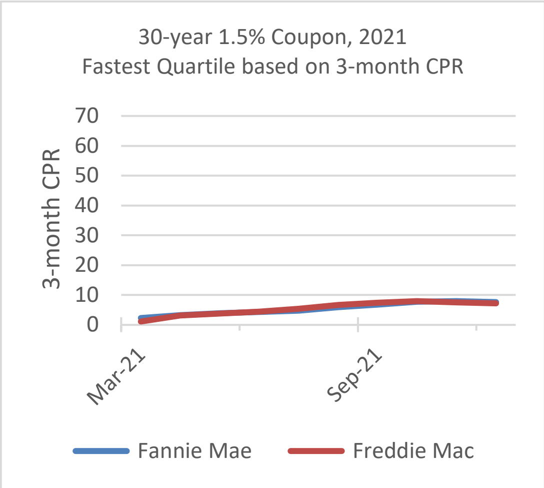
Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no one-month CPR information.

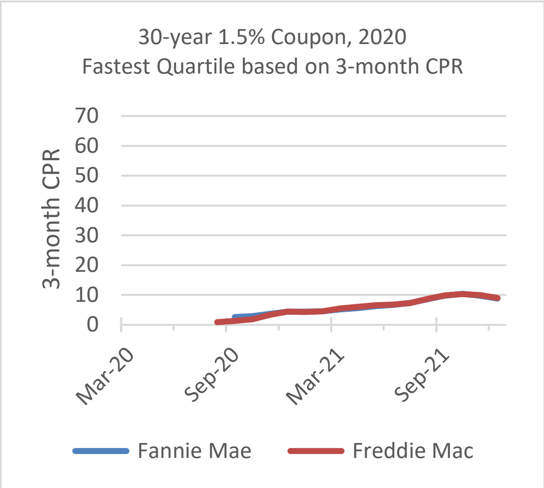
Chart 3a: One-month CPR on All 30-year, TBA-eligible MBS by Coupon



Source: RiskSpan calculations from data available publicly as of January 2022. 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*

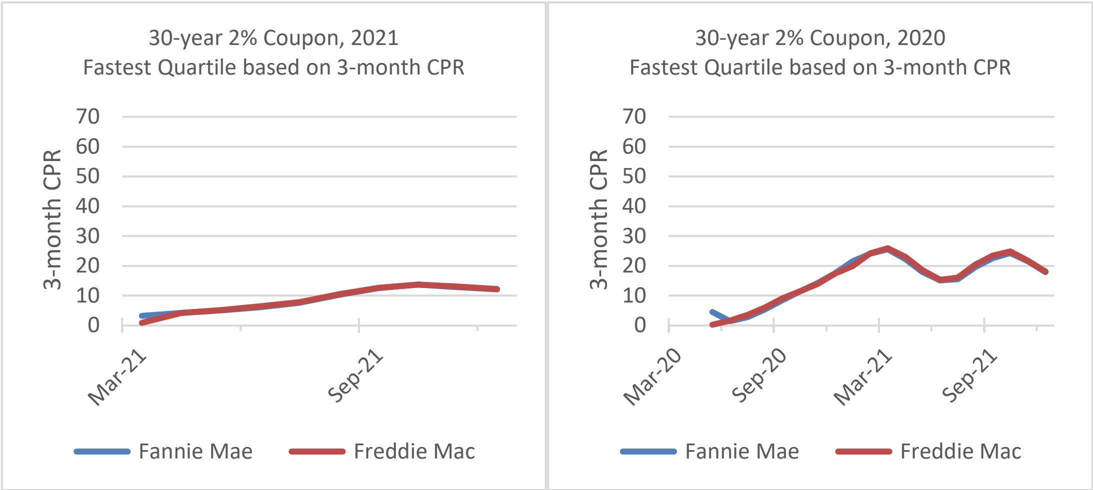




* The 2016, 2017, 2018, and 2019 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no three-month CPR information.

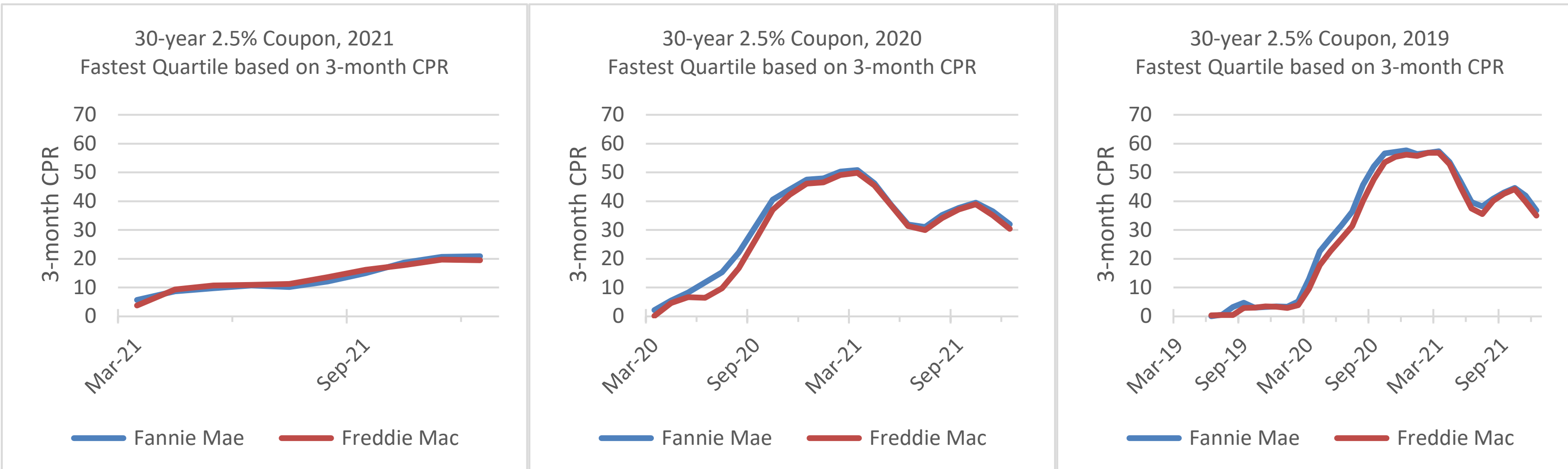
Chart 3c: Three-month CPR on 30-year Fastest Paying Quartiles, 2.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year*



* The 2016, 2017, 2018, and 2019 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

Source: RiskSpan calculations from data available publicly as of January 2022. 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 2016, 2017, and 2018 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

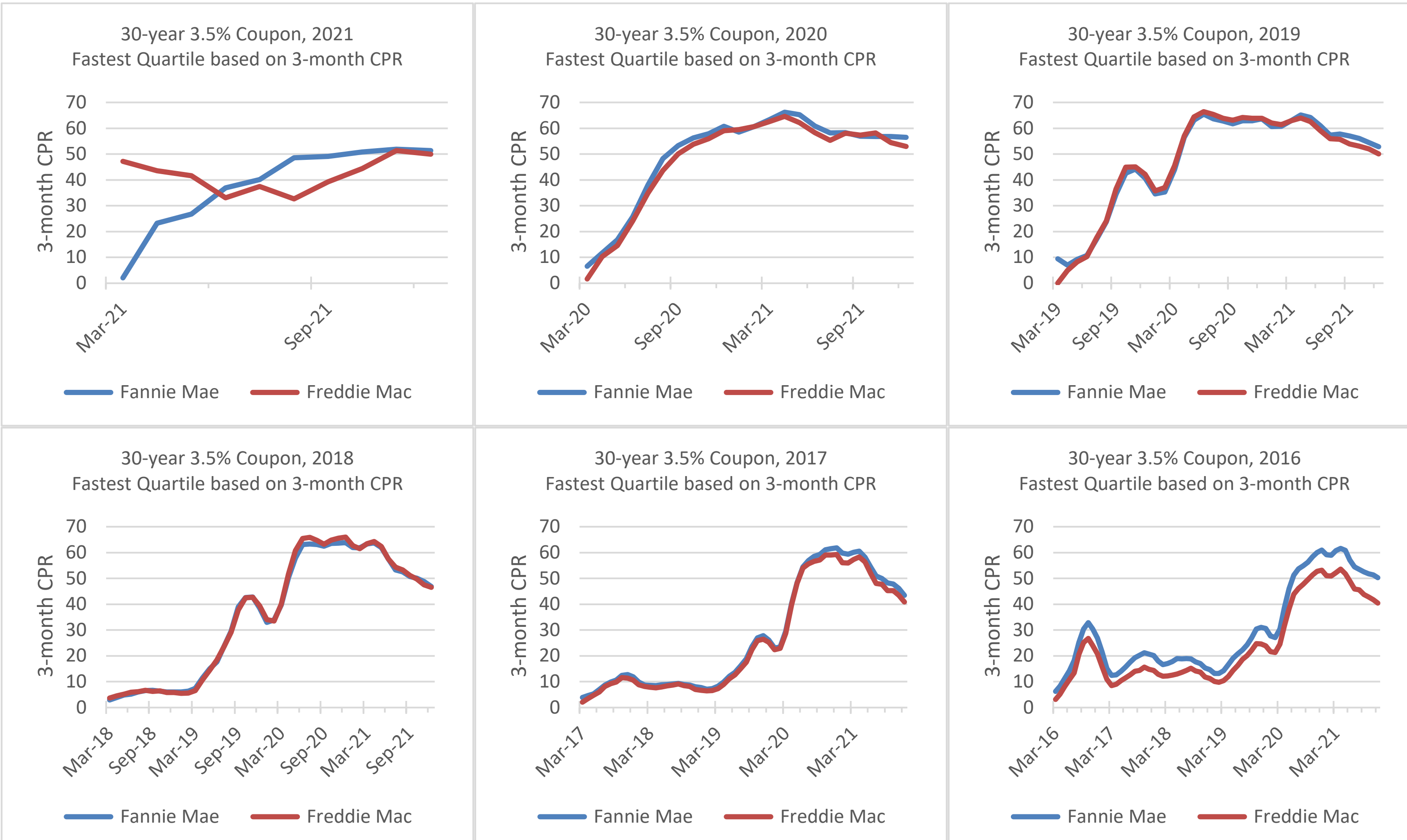
Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no three-month CPR information.

Chart 3e: Three-month CPR on 30-year Fastest Paying Quartiles, 3.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year*

* The 2018 cohort is omitted because it has a combined UPB below the $10 billion threshold.

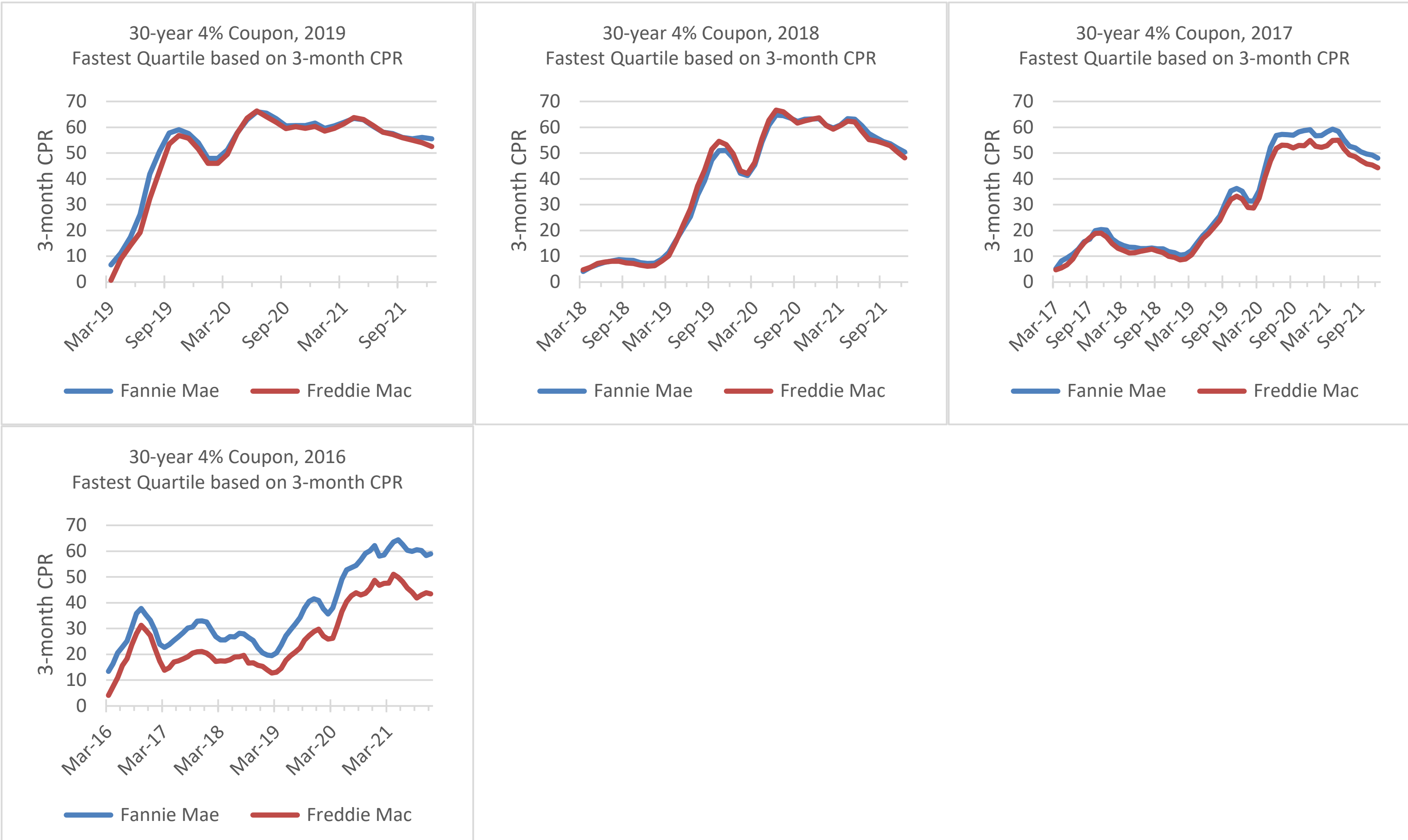
Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no three-month CPR information.

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



Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no three-month CPR information.

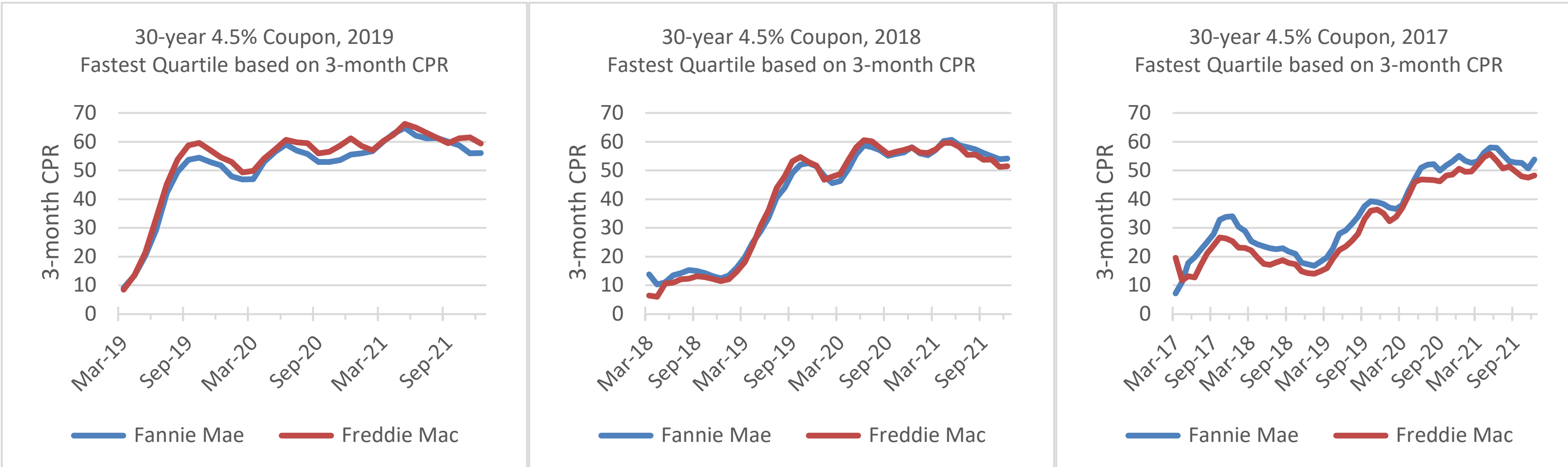
Chart 3g: Three-month CPR on 30-year Fastest Paying Quartiles, 4.00 Percent Coupon TBA-eligible MBS by Loan-Origination Year



* The 2020 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 2022. Calculations exclude new issuance with no three-month CPR information.

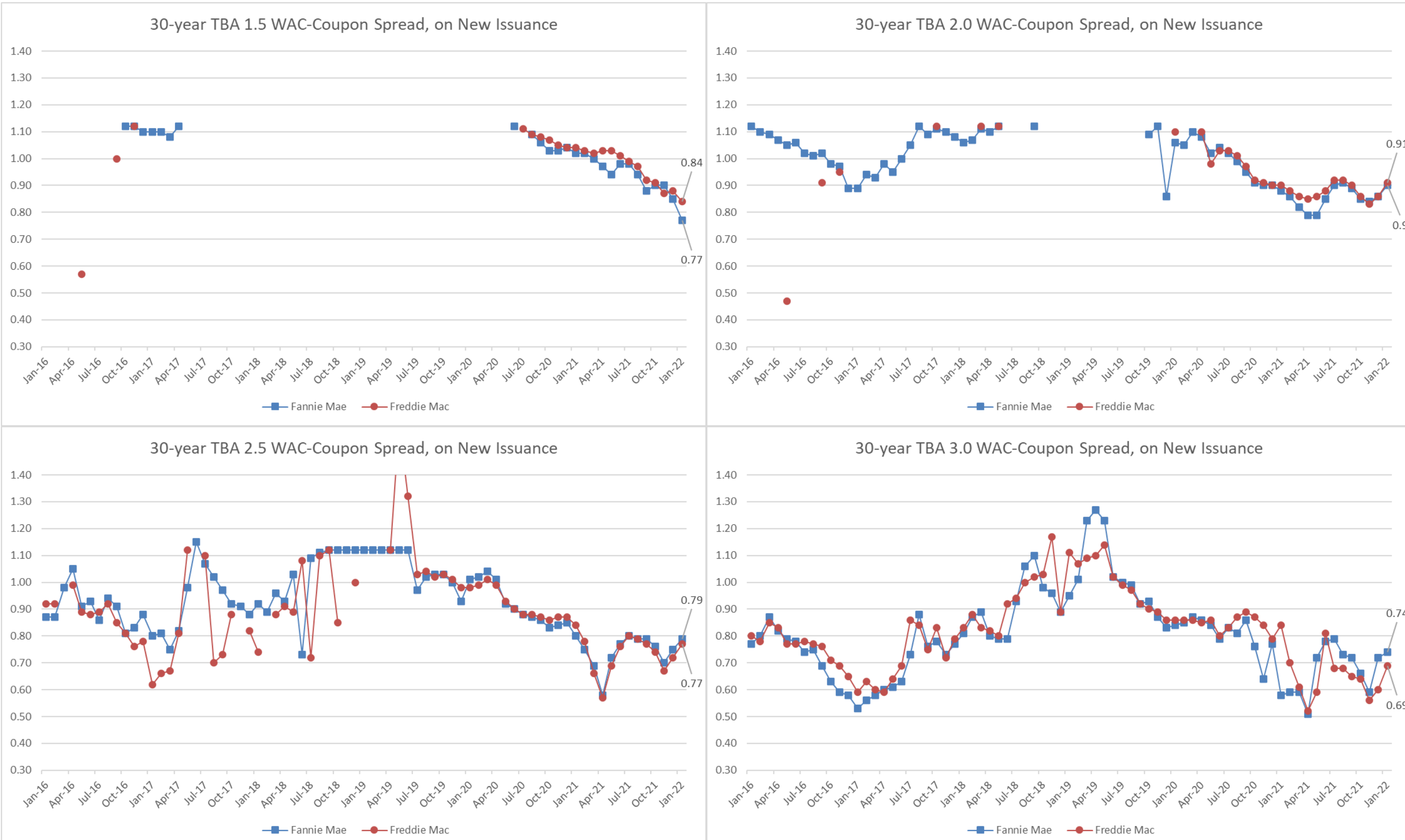
Chart 3h: Three-month CPR on 30-year Fastest Paying Quartiles, 4.50 Percent Coupon TBA-eligible MBS by Loan-Origination Year



* The 2016, 2020, and 2021 cohorts are omitted because each has a combined UPB below the $10 billion threshold.

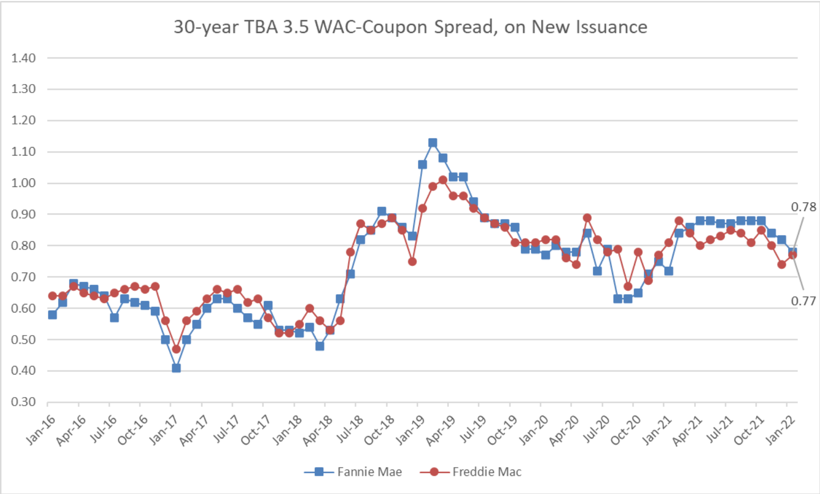
Source: RiskSpan calculations from data available publicly as of January 2022. Calculations exclude new issuance with no three-month CPR information.

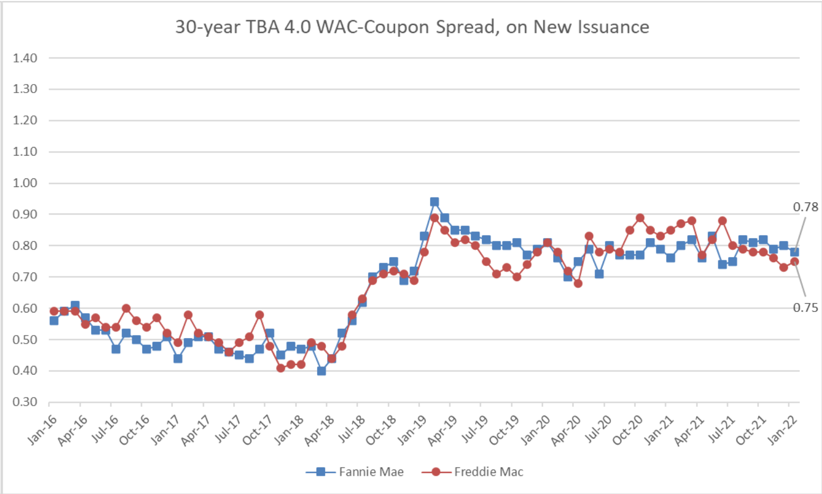
Chart 4: Comparison of Weighted Average Loan Rate to Coupon Spread on New 30-year MBS Issuance

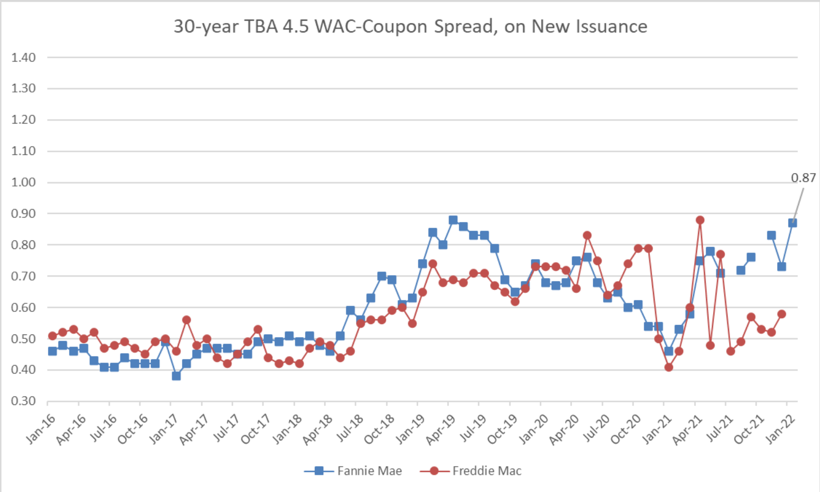


Source: RiskSpan calculations from data available publicly as of January 2022. Gaps in data may occur in some months due to a lack of MBS issuance. Latest month's WAC-Coupon Spread value is labeled, where available.

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 2022. 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

		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	
Coupon	Year	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
1.5	2020	2.54	2.55	339	339	15	14	10	12.7	8.80	9.00	9.70	10.00	10.40	10.30
	2021	2.52	2.52	344	344	11	11	10.7	17.9	7.60	7.20	7.90	7.50	7.70	7.90
2	2020	2.98	2.99	335	336	18	17	65.9	55.8	17.90	18.10	21.50	21.70	24.30	24.80
	2021	2.84	2.86	345	345	11	11	96.2	90.9	12.10	12.20	12.90	13.10	13.70	13.70
2.5	2019	3.49	3.50	327	328	27	26	4.9	4.1	36.80	35.00	41.90	39.80	44.60	44.20
	2020	3.41	3.41	334	333	20	20	46	30.7	32.00	30.40	36.50	35.10	39.50	38.90
	2021	3.26	3.26	348	347	9	8	43.9	40.7	20.90	19.50	20.70	19.70	18.60	18.50
3	2016	3.71	3.73	282	286	66	64	15.5	12.3	37.20	33.50	39.70	36.30	42.00	38.10
	2017	3.78	3.86	297	299	52	51	1.3	1.3	42.10	39.30	43.90	41.00	45.30	44.30
	2019	3.92	3.94	325	326	28	28	10.7	9.9	46.10	44.40	49.50	48.40	52.00	50.70
	2020	3.87	3.85	332	332	22	20	11.3	6.4	45.00	44.00	48.00	47.10	50.00	48.80
	2021	3.81	3.76	348	345	8	8	2.6	2.2	35.90	35.30	35.20	35.20	31.30	30.60
3.5	2016	4.13	4.16	283	284	67	66	4	3.1	50.30	40.40	51.30	41.70	51.80	42.80
	2017	4.06	4.06	298	299	52	52	7.9	6.3	43.40	40.90	46.10	43.40	47.80	45.30
	2018	4.24	4.30	307	308	44	43	2.9	2.1	46.90	46.50	48.80	47.50	50.10	49.70
	2019	4.43	4.42	326	324	28	29	5	3.8	52.80	50.10	54.50	52.00	56.10	53.10
	2020	4.38	4.38	332	333	23	22	1.4	0.7	56.50	53.00	56.80	54.40	56.80	58.20
4	2016	4.57	4.62	286	285	66	67	0.7	0.7	58.90	43.40	58.30	43.90	60.20	43.00
	2017	4.49	4.46	300	301	53	52	4.1	2.9	48.00	44.30	49.20	45.40	49.60	45.80
	2018	4.74	4.66	312	310	40	42	6.3	4.1	50.40	48.10	51.90	50.40	53.60	52.80
	2019	4.89	4.86	325	324	30	30	2.4	1.5	55.50	52.50	56.10	54.00	55.50	55.00
4.5	2017	5.00	4.96	300	302	54	52	0.7	0.5	53.80	48.20	50.70	47.50	52.60	47.90
	2018	5.23	5.15	315	312	39	40	2	1.6	54.10	51.50	53.90	51.20	55.00	53.80
	2019	5.35	5.33	324	322	31	32	0.8	0.4	56.10	59.40	56.00	61.50	58.70	61.20

Source: RiskSpan calculations from data available publicly as of January 2022. 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	8.3		7.2		7.1		4.2	
Freddie Mac	8.6		7.4		6.2		4.7	
Difference	-0.3		-0.2		0.9		-0.5	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	15	15	13	13	12	11	9	10
WAC	2.53	2.55	2.53	2.54	2.51	2.53	2.46	2.51
ALS	362	362	374	374	383	383	367	363
FICO	775	774	775	774	775	771	773	771

30-year, 2.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	31.7		26.9		15.6		5.7	
Freddie Mac	30.1		24.7		12.5		4.8	
Difference	1.6		2.2		3.1		0.9	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	21	21	17	17	11	8	6	5
WAC	3.41	3.41	3.35	3.34	3.30	3.29	3.27	3.25
ALS	330	325	334	322	315	326	318	330
FICO	763	763	756	756	750	748	743	741

30-year, 2.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	16.6		12.7		8.4		3.6	
Freddie Mac	15.9		12.4		8.3		3.6	
Difference	0.7		0.3		0.1		0.0	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	16	16	13	12	10	9	6	5
WAC	2.94	2.94	2.88	2.88	2.83	2.88	2.87	2.88
ALS	350	355	348	354	339	343	348	360
FICO	770	771	766	764	766	764	764	762

30-year, 3.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	45.1		39.1		31.2		20.8	
Freddie Mac	43.1		37.0		31.3		23.2	
Difference	2.0		2.1		-0.1		-2.4	
Attributes	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
WALA	28	27	29	29	57	63	44	41
WAC	3.89	3.89	3.85	3.85	3.68	3.74	3.69	3.72
ALS	314	314	300	302	279	284	272	272
FICO	753	752	748	750	758	758	749	745

* 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	51.1		40.6		36.8		26.0	
Freddie Mac	47.2		39.4		36.2		28.8	
Difference	3.9		1.2		0.6		-2.8	
Attributes	**FNM**	**FRE**	**FNM**	**FRE**	**FNM**	**FRE**	**FNM**	**FRE**
WALA	34	32	45	47	54	59	54	52
WAC	4.37	4.38	4.18	4.14	4.06	4.13	4.11	4.14
ALS	290	293	284	292	282	280	267	274
FICO	736	739	748	751	754	747	746	745

30-year, 4.5	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	55.5		47.6		44.7		29.8	
Freddie Mac	53.4		44.4		40.3		28.5	
Difference	2.1		3.2		4.4		1.3	
Attributes	**FNM**	**FRE**	**FNM**	**FRE**	**FNM**	**FRE**	**FNM**	**FRE**
WALA	37	38	39	42	44	43	45	46
WAC	5.26	5.21	5.27	5.15	5.14	5.10	5.11	5.07
ALS	284	284	288	286	278	284	265	268
FICO	701	715	703	714	711	713	710	713

30-year, 4.0	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Fannie Mae	52.6		43.7		41.0		30.1	
Freddie Mac	48.9		43.3		39.5		30.8	
Difference	3.7		0.4		1.5		-0.7	
Attributes	**FNM**	**FRE**	**FNM**	**FRE**	**FNM**	**FRE**	**FNM**	**FRE**
WALA	37	39	42	41	49	50	49	52
WAC	4.79	4.73	4.71	4.70	4.51	4.56	4.59	4.59
ALS	286	289	286	296	284	286	265	274
FICO	725	735	736	739	737	731	733	731

* 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 2021 30-year, TBA-eligible MBS Total Industry Quarterly Issuance Report*

	1.50%		2.00%		2.50%		3.00%		3.50%		4.00%		4.50%		5.00%		All Loans	
	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE	FNM	FRE
Loan Count	4,372	3,116	289,176	286,087	352,254	332,219	85,111	83,474	11,441	11,567	2,730	3,302	94	74	17	14	745,195	719,853
UPB (billions)	1.69	1.21	95.14	99.11	102.16	94.68	18.73	16.91	2.39	2.15	0.55	0.62	0.01	0.02	0.00	0.00	220.67	214.70
% of Production Volume	0.80	0.60	43.10	46.10	46.30	44.00	8.50	7.90	1.10	1.00	0.20	0.30	0.00	0.00	0.00	0.00	100.00	100.00
WA Note Rate (%)	2.39	2.37	2.86	2.86	3.25	3.22	3.68	3.61	4.31	4.27	4.79	4.75	5.32	5.03	5.50	5.38	3.13	3.09
WA Loan Age (mos.)	1	2	1	1	1	1	1	1	2	2	2	2	3	2	3	2	1	1
WA FICO	773	768	762	760	741	740	718	720	711	710	706	707	715	712	719	754	748	747
WA LTV	0.63	0.67	0.69	0.72	0.76	0.75	0.76	0.73	0.78	0.75	0.78	0.76	0.75	0.79	0.74	0.74	0.73	0.74
%FICO<680	1.00	2.00	3.00	3.00	10.00	10.00	28.00	26.00	34.00	38.00	38.00	40.00	25.00	36.00	40.00	12.00	9.00	9.00
%FICO>740	85.00	82.00	74.00	73.00	54.00	53.00	37.00	38.00	34.00	33.00	30.00	32.00	32.00	34.00	36.00	72.00	61.00	61.00
%LTV>80	10.00	16.00	20.00	25.00	30.00	27.00	24.00	16.00	27.00	13.00	21.00	12.00	7.00	25.00	19.00	18.00	25.00	25.00
%FICO<680 & LTV>80	0.00	0.00	0.00	0.00	2.00	1.00	8.00	5.00	7.00	5.00	3.00	3.00	1.00	1.00	0.00	0.00	2.00	1.00
%DTI>40	26.00	31.00	34.00	33.00	40.00	38.00	42.00	38.00	45.00	37.00	47.00	39.00	62.00	44.00	80.00	35.00	37.00	36.00
%Purchase	20.00	34.00	39.00	47.00	49.00	48.00	50.00	40.00	56.00	42.00	54.00	43.00	61.00	45.00	45.00	52.00	45.00	47.00
%Rate/Term	62.00	46.00	36.00	30.00	19.00	18.00	13.00	14.00	6.00	6.00	4.00	4.00	4.00	5.00	0.00	0.00	26.00	23.00
%Cash out	17.00	20.00	25.00	23.00	31.00	33.00	37.00	45.00	38.00	52.00	41.00	53.00	35.00	49.00	55.00	48.00	29.00	30.00
%Owner Occupied	98.00	97.00	97.00	97.00	90.00	90.00	66.00	68.00	54.00	53.00	44.00	44.00	0.00	46.00	0.00	0.00	90.00	91.00
%Second Home	1.00	3.00	3.00	3.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	3.00	1.00	0.00	0.00	0.00	4.00	4.00
%Investor	0.00	1.00	0.00	0.00	5.00	5.00	29.00	27.00	43.00	44.00	53.00	53.00	99.00	54.00	100.00	100.00	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 January 2022.

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.