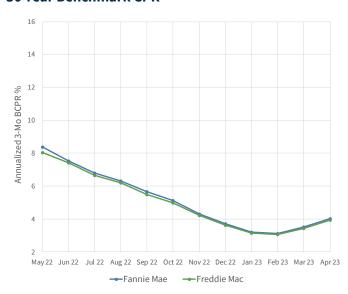


Benchmark CPR® Bulletin – May 2023

Monthly Benchmark CPR Results

30 Year Benchmark CPR*



15 Year Benchmark CPR*

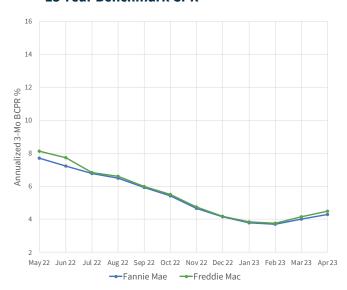


Table 1a. Components of Fannie Mae's 30 Year Mar and Apr BCPR Results

30 Yr FNM Cohort		BCPR3 Components								
Reporting Period	BCPR3	Jan	Feb	Mar	Apr					
Mar 2023	3.5	2.8	3.3	4.6						
Apr 2023	4.0		3.3	4.6	4.3					

Table 1b. Components of Fannie Mae's 15 Year Mar and Apr BCPR Results

15 Yr FNM Cohort		BCPR3 Components								
Reporting Period	BCPR3	Jan	Feb	Mar	Apr					
Mar 2023	4.0	3.5	3.6	5.0						
Apr 2023	4.3		3.6	5.0	4.3					

Table 2. Top 5 Fastest Sellers/Servicers: Fannie Mae**

Seller Name	Curr UPB (\$MM)	Apr BCPR	Mar BCPR	Servicer Name	Curr UPB (\$MM)	Apr BCPR	Mar BCPR
FIRSTBANK	2,589	140%	120%	ROCKET MORTGAGE, LLC	85,468	149%	148%
MUTUAL OF OMAHA MORTGAGE, INC	2,502	138%	145%	FIRSTBANK	2,173	141%	119%
AMERICAN FINANCING CORPORATION	2,538	138%	134%	PINGORA LOAN SERVICING, LLC	1,176	131%	139%
VANDERBILT MORTGAGE AND FINANCE,	l 1,576	135%	97%	TRUSTMARK NATIONAL BANK	1,416	130%	129%
ROCKET MORTGAGE, LLC	129,800	131%	130%	VANDYK MORTGAGE CORPORATION	1,201	128%	106%

Table 3. Top 5 Fastest Sellers/Servicers: Freddie Mac**

Seller Name	Curr UPB (\$MM)	Apr BCPR	Mar BCPR	Servicer Name	Curr UPB (\$MM)	Apr BCPR	Mar BCPR
FBC MORTGAGE LLC	1,546	158%	147%	LOWER, LLC	851	151%	137%
AMERIS BANK	1,845	152%	146%	FBC MORTGAGE LLC	1,236	151%	133%
FREEDOM MORTGAGE CORPORATION	7,979	144%	151%	AMERIS BANK	1,232	145%	147%
RUOFF MORTGAGE COMPANY	1,398	134%	134%	ATLANTIC BAY MORTGAGE GROUP, LLC	889	143%	124%
UMPQUA BANK	1,727	132%	116%	ROCKET MORTGAGE, LLC	52,992	141%	139%

Report(s) include entire population for the last 24-months of issuance, all coupons, 30-year or 15-year fixed rate, top 100 Servicers by Current UPB. Rolling 24-month lookback for which a 3-month CPR is available.

 $^{^{\}star\star} \, \text{Population includes top 100 sellers/servicers by UPB and reflects Note Rate Adjusted BCPR3 values}.$



Historical Benchmark CPR Data

Table 4. Summary of Fannie Mae 30 Year Historical BCPR Data - Seller view

Metric	Apr-2023	Mar-2023	Feb-2023	Apr-2022
Cohort BCPR1	4.4	4.7	3.3	7.5
Cohort BCPR3	4.0	3.5	3.1	8.9
Cohort BCPR6	3.5	3.6	3.8	12.8
WA BCPR3 of Top 25 Sellers*	4.1	3.5	3.1	9.3
WA NR-Adjusted % of Cohort for Top 25 Sellers*	102.2	101.7	101.2	106.4
BCPR3 Range (Max-Min) for Top 100 Sellers*	3.6	2.9	2.6	8.7
Total Current UPB (\$B)	1,272	1,334	1,410	1,732
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	31%	28%	32%	27%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	42%	49%	44%	52%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	14%	10%	21%	9%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	13%	13%	3%	12%

Table 5. Summary of Freddie Mac 30 Year Historical BCPR Data - Seller view

Metric	Apr-2023	Mar-2023	Feb-2023	Apr-2022
Cohort BCPR1	4.2	4.6	3.3	7.5
Cohort BCPR3	3.9	3.4	3.1	8.5
Cohort BCPR6	3.5	3.5	3.7	11.9
WA BCPR3 of Top 25 Sellers*	3.9	3.4	3.0	8.5
WA NR-Adjusted % of Cohort for Top 25 Sellers*	99.4	99.6	99.7	101.8
BCPR3 Range (Max-Min) for Top 100 Sellers*	4.1	3.5	3.3	9.3
Total Current UPB (\$B)	1,177	1,240	1,299	1,523
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	18%	16%	22%	31%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	64%	67%	62%	50%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	15%	14%	13%	10%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	3%	3%	3%	9%



Table 6. Summary of Fannie Mae 30 Year Historical BCPR Data - Servicer view

Metric	Apr-2023	Mar-2023	Feb-2023	Apr-2022
Cohort BCPR1	4.4	4.7	3.3	7.5
Cohort BCPR3	4.0	3.5	3.1	8.9
Cohort BCPR6	3.5	3.6	3.8	12.8
WA BCPR3 of Top 25 Servicers*	4.1	3.5	3.1	9.4
WA NR-Adjusted % of Cohort for Top 25 Servicers*	101.1	100.8	101.3	106.2
BCPR3 Range (Max-Min) for Top 100 Servicers*	4.4	3.5	2.8	7.5
Total Current UPB (\$B)	1,272	1,334	1,410	1,732
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	31%	22%	32%	24%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	48%	62%	51%	57%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	13%	8%	8%	11%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	9%	8%	9%	9%

Table 7. Summary of Freddie Mac 30 Year Historical BCPR Data - Servicer view

Metric	Apr-2023	Mar-2023	Feb-2023	Apr-2022
Cohort BCPR1	4.2	4.6	3.3	7.5
Cohort BCPR3	3.9	3.4	3.1	8.5
Cohort BCPR6	3.5	3.5	3.7	11.9
WA BCPR3 of Top 25 Servicers*	3.9	3.4	3.0	8.5
WA NR-Adjusted % of Cohort for Top 25 Servicers*	99.6	99.6	99.5	102.1
BCPR3 Range (Max-Min) for Top 100 Servicers*	4.0	4.2	3.8	7.8
Total Current UPB (\$B)	1,177	1,240	1,299	1,523
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	16%	15%	20%	32%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	69%	69%	68%	44%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	9%	9%	6%	17%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	6%	6%	7%	7%



BCPR Component Profiles

Table 8. Fannie Mae 30-Year BCPR Component Collateral Profiles

	Orig amt (\$MM)	Beg bal (\$MM)	Beg loan count	WAOLS	WA WAC	WA WALA	WA FICO	WAITV	WA DTI	% CA	% TPO	% AW	% Owner	% Investor	% Purchase	SMM	CPR
Fannie Mae BCPR	(\$IVIIVI)	(SMIM)	Count	WAULS	WA WAC	WALA	WAFICO	WALIV	WADII	70 CA	70 IFU	70 AVV	Owner	ilivestoi	Fuicilase	SIVIIVI	CFR
a. Jan component	1,538,194	1,483,515	5,140,652	299,222	3.49	15	751	74	36	20%	38%	30%	91%	5%	49%	0,2	2.7
b. Feb component	1,470,968	, ,	4,881,697	301,323	3.57	15	750	74	36	20%	38%	29%	91%	5%	50%	0.3	3.2
c. Mar component	1,393,594	1,343,681	4,611,989	302,168	3.66	16	750	74	36	19%	39%	28%	91%	5%	52%	0.4	4.6
d. April component	1,328,493	1,280,388	4,379,308	303,357	3.74	16	749	75	36	19%	39%	27%	92%	5%	54%	0.4	4.3
e. MoM profile change	-65,101	-63,294	-232,681	1,189	0.08	0	-1	0	0	0%	0%	-1%	0%	0%	2%	-5.9%	-5.8%
f. April pay-offs	4,397	4,138	15,776	279,208	3.97	16	743	74	37	13%	35%	26%	90%	6%	51%	100.0	100.0
g. Mar pay-offs	4,837	4,526	17,332	279,713	3.86	15	744	74	36	15%	36%	27%	89%	6%	49%	100.0	100.0
h. April-23 issuances	17,622	17,470	55,582	317,038	6.36	2	750	79	39	12%	42%	15%	92%	6%	86%	0.7	7.8
i. April-21 issuances	78,161	73,663	271,972	287,386	2.86	25	760	71	34	25%	40%	43%	89%	7%	30%	0.4	4.6
Fannie Mae universe																	
j. April universe	10,321,469	2,804,925	12,272,756	337,005	3.74	40	751	74	N/A	N/A	39%	23%	90%	6%	48%	0.4	5.1
k. Diff vs. April component	8,992,976	1,524,537	7,893,448	33,648	0.00	23	2	0	N/A	N/A	0%	-3%	-1%	1%	-5%	0.1	0.8

Records a-d: Collateral profiles of BCPR components as of the start of each month. Records b-d comprise the most recent BCPR3, while records a-c comprise the prior BCPR3. Records f-g: Profile of loans that paid off in each respective month.

Records hi: Profile of loans issued in the most recent month added to the BCPR3 population and loans issued in the month that rolled off (aged out) of the BCPR3 population. Record i: Overall Fannie Mae 30-year TBA-eligible universe.

BCPR Heatmap

Table 9. MoM Percentage Changes of Various Spec & Loan Cuts on the BCPR1 Heatmap

Population	Orig Amount (\$ MM)	Current UPB (\$ MM)	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23
85k	\$7,267	\$6,531	-2%	-3%	-9%	0%	-3%	-7%	-14%	-4%	-12%	10%	29%	-4%
110k	\$14,909	\$13,405	-2%	-4%	-13%	12%	-16%	-5%	-16%	-1%	-8%	7%	26%	-3%
125k	\$14,248	\$12,830	-8%	4%	-17%	5%	-8%	-9%	-14%	-9%	-12%	12%	30%	6%
150k	\$32,649	\$29,558	-5%	1%	-11%	2%	-12%	-14%	-13%	-4%	-16%	17%	25%	0%
175k	\$41,052	\$37,251	-4%	-3%	-8%	0%	-12%	-11%	-19%	-8%	-10%	11%	38%	-8%
200k	\$54,473	\$49,535	-7%	3%	-16%	4%	-10%	-20%	-14%	-2%	-16%	13%	42%	-12%
225k	\$60,115	\$54,858	-6%	-4%	-12%	0%	-12%	-17%	-15%	-8%	-16%	20%	42%	-10%
NY	\$34,259	\$32,350	-7%	24%	-18%	13%	-14%	-23%	-2%	-1%	-13%	-2%	25%	-19%
TX	\$83,102	\$76,768	-4%	-4%	-13%	-3%	-14%	-21%	-15%	-7%	-11%	35%	24%	-5%
FL	\$72,313	\$66,242	-11%	-4%	-19%	3%	-11%	-12%	-16%	0%	-13%	23%	41%	-5%
LTV>=95	\$150,017	\$140,545	-8%	-5%	-17%	3%	-14%	-21%	-14%	-9%	-15%	26%	39%	2%
Investor***	\$33,833	\$31,122	-3%	-17%	-17%	-3%	-4%	-25%	-14%	-3%	-12%	27%	37%	0%
FICO<700	\$97,270	\$87,950	-18%	-2%	-20%	4%	-10%	-19%	-19%	-5%	-15%	27%	34%	-7%
Non-Spec	\$549,194	\$501,017	-9%	-1%	-20%	3%	-13%	-16%	-18%	-4%	-17%	16%	46%	-7%
Retail	\$763,235	\$697,265	-9%	-1%	-17%	3%	-12%	-16%	-15%	-5%	-16%	19%	39%	-5%
Correspondent	\$287,219	\$263,544	-7%	-4%	-17%	3%	-12%	-18%	-15%	-5%	-15%	21%	38%	-5%
Broker	\$194,726	\$179,607	-9%	-4%	-21%	3%	-12%	-18%	-22%	1%	-13%	16%	42%	-10%
Purchase	\$716,880	\$665,544	-9%	-2%	-15%	5%	-11%	-16%	-13%	-5%	-11%	20%	38%	-5%
Refi	\$239,060	\$213,923	-7%	-1%	-20%	0%	-13%	-18%	-20%	-3%	-22%	12%	45%	-9%
Cash-out	\$289,241	\$260,949	-9%	-1%	-16%	4%	-12%	-18%	-16%	-5%	-16%	22%	36%	-5%
Principal	\$1,142,526	\$1,047,277	-9%	-1%	-18%	3%	-12%	-17%	-17%	-5%	-15%	19%	39%	-6%
Second Home	\$39,564	\$35,121	0%	-8%	-13%	6%	-10%	-16%	-16%	2%	-15%	14%	49%	-17%
Investment***	\$63,090	\$58,018	-5%	-12%	-16%	-4%	-8%	-22%	-11%	-4%	-11%	22%	33%	2%
Standard Appraisal	\$939,886	\$864,962	-9%	-3%	-18%	3%	-12%	-17%	-16%	-5%	-15%	19%	39%	-5%
Appraisal Waiver	\$305,295	\$275,454	-7%	-1%	-17%	2%	-13%	-15%	-18%	-3%	-15%	18%	39%	-8%

^{***} Note that the Investor cut is listed twice. The first instance is the Investor story as part of a specified pooling waterfall. The second instance is a pure isolation of all investor loans in relation to principal residence and second homes. Note the UPB differences between the two, as several investor loans are pooled in other stories.



Additional Resources

For questions, contact the Fannie Mae Investor Help Line at 1-800-232-6643, Option 3 or by e-mail.

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Benchmark CPR Historical Data Download

Benchmark CPR Methodology Overview

Benchmark CPR Video Tutorial

MBS Cohort Analyzer Dashboard

MBS Cohort Analyzer User Guide

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