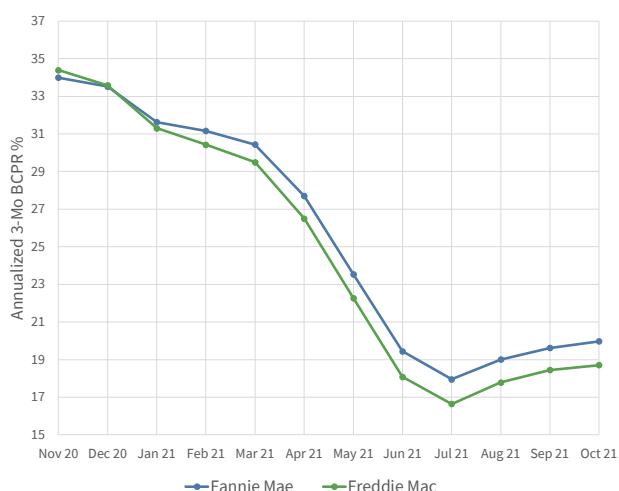


Benchmark CPR™ Bulletin – Nov 2021

Monthly Benchmark CPR Results

30 Year Benchmark CPR*



15 Year Benchmark CPR*

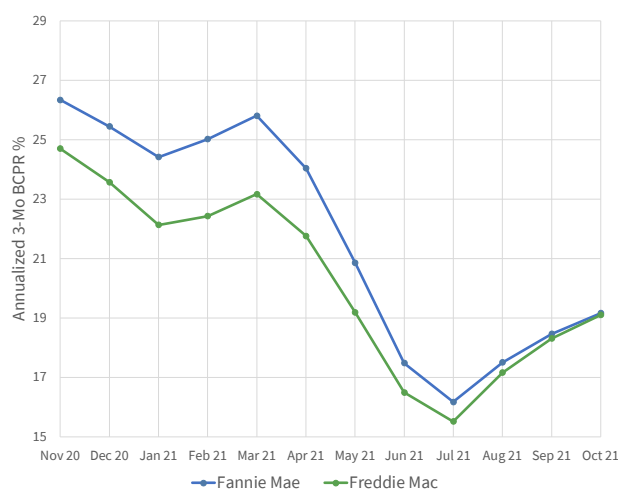


Table 1a. Components of Fannie Mae's 30 Year Sep and Oct BCPR Results

Reporting Period	BCPR3	BCPR3 Components			
		Jul	Aug	Sep	Oct
Sep 2021	19.6	17.2	20.8	20.7	
Oct 2021	20.0		20.8	20.7	18.4

Table 1b. Components of Fannie Mae's 15 Year Sep and Oct BCPR Results

Reporting Period	BCPR3	BCPR3 Components			
		Jul	Aug	Sep	Oct
Sep 2021	18.5	15.2	20.0	20.0	
Oct 2021	19.2		20.0	20.0	17.4

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

Seller Name	UPB (\$MM)	Oct BCPR	Sep BCPR	Service Provider Name	UPB (\$MM)	Oct BCPR	Sep BCPR
ONE AMERICAN BANK	2,905	185%	177%	NETWORK CAPITAL FUNDING CORPORATION	2,065	256%	251%
ROCKET MORTGAGE, LLC	142,041	158%	155%	PODIUM MORTGAGE CAPITAL LLC	9,259	210%	213%
PROVIDENT FUNDING ASSOCIATES, LP	2,136	154%	158%	PROVIDENT FUNDING ASSOCIATES, LP	2,134	154%	158%
LENNAR MORTGAGE, LLC	5,345	152%	153%	ROCKET MORTGAGE, LLC	109,647	150%	142%
MUTUAL OF OMAHA MORTGAGE, INC	3,454	141%	138%	PINGORA LOAN SERVICING, LLC	4,472	149%	148%

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

Seller Name	UPB (\$MM)	Oct BCPR	Sep BCPR	Service Provider Name	UPB (\$MM)	Oct BCPR	Sep BCPR
THE LOAN STORE LLC	3,654	309%	316%	MONEY SOURCE INC	1,811	191%	193%
ONE AMERICAN BANK	2,983	206%	200%	PODIUM MORTGAGE CAPITAL LLC	5,569	182%	195%
MONEY SOURCE INC	1,833	188%	188%	FREMONT BANK	1,971	180%	181%
FREMONT BANK	1,971	180%	181%	NBKC BANK	2,811	162%	160%
NBKC BANK	3,143	177%	172%	ONSLow BAY FINANCIAL LLC	6,374	153%	142%

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

** Population includes top 100 sellers/service providers 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	Oct-2021	Sep-2021	Aug-2021	Oct-2020
Cohort BCPR1	16.4	18.6	18.7	30.0
Cohort BCPR3	20.0	19.6	19.0	34.8
Cohort BCPR6	22.6	23.5	25.9	43.5
WA BCPR3 of Top 25 Sellers*	21.7	21.4	20.8	37.8
WA NR-Adjusted % of Cohort for Top 25 Sellers*	111.5	111.8	112.0	107.1
BCPR3 Range (Max-Min) for Top 100 Sellers*	21.5	21.5	23.3	54.8
Total Current UPB (\$B)	1,538	1,511	1,489	918
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	33%	32%	34%	32%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	33%	31%	29%	32%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	22%	25%	24%	33%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	12%	13%	13%	4%

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

Metric	Oct-2021	Sep-2021	Aug-2021	Oct-2020
Cohort BCPR1	15.0	16.9	17.5	30.1
Cohort BCPR3	18.7	18.4	17.8	35.8
Cohort BCPR6	21.3	22.3	24.8	44.0
WA BCPR3 of Top 25 Sellers*	18.9	18.8	18.2	37.5
WA NR-Adjusted % of Cohort for Top 25 Sellers*	103.9	104.8	105.4	104.1
BCPR3 Range (Max-Min) for Top 100 Sellers*	30.3	27.1	27.1	55.6
Total Current UPB (\$B)	1,286	1,237	1,205	667
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	42%	42%	34%	29%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	28%	29%	36%	44%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	20%	13%	14%	16%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	11%	16%	16%	11%

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

Metric	Oct-2021	Sep-2021	Aug-2021	Oct-2020
Cohort BCPR1	16.4	18.6	18.7	30.0
Cohort BCPR3	20.0	19.6	19.0	34.8
Cohort BCPR6	22.6	23.5	25.9	43.5
WA BCPR3 of Top 25 Sellers*	21.5	21.2	20.6	38.8
WA NR-Adjusted % of Cohort for Top 25 Sellers*	109.6	109.4	110.3	107.9
BCPR3 Range (Max-Min) for Top 100 Sellers*	39.0	34.1	36.3	55.5
Total Current UPB (\$B)	1,538	1,511	1,489	918
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	29%	30%	30%	31%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	35%	33%	30%	33%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	25%	26%	28%	27%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	12%	11%	12%	9%

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

Metric	Oct-2021	Sep-2021	Aug-2021	Oct-2020
Cohort BCPR1	15.0	16.9	17.5	30.1
Cohort BCPR3	18.7	18.4	17.8	35.8
Cohort BCPR6	21.3	22.3	24.8	44.0
WA BCPR3 of Top 25 Sellers*	18.9	18.7	18.0	37.7
WA NR-Adjusted % of Cohort for Top 25 Sellers*	104.4	104.1	104.9	103.1
BCPR3 Range (Max-Min) for Top 100 Sellers*	29.4	30.8	33.1	59.1
Total Current UPB (\$B)	1,286	1,237	1,205	667
% of Cohort UPB w/ NR-Adjusted BCPR3 0-90% of Cohort	37%	38%	36%	27%
% of Cohort UPB w/ NR-Adjusted BCPR3 90-110% of Cohort	32%	33%	35%	45%
% of Cohort UPB w/ NR-Adjusted BCPR3 110-130% of Cohort	20%	17%	13%	24%
% of Cohort UPB w/ NR-Adjusted BCPR3 >130% of Cohort	11%	11%	15%	4%

BCPR Component Profiles

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

	Orig amt (\$MM)	Beg bal (\$MM)	Beg loan count	WA OLS	WA WAC	WA WALA	WA FICO	WA LTV	WA DTI	% CA	% TPO	% AW	% Owner	% Investor	% Purchase	SMM	CPR
Fannie Mae BCPR																	
a. Jul component	1,515,444	1,480,185	5,455,600	277,778	3.22	10	756	74	34	21%	39%	34%	91%	5%	39%	1.6	17.2
b. Aug component	1,558,742	1,521,142	5,589,924	278,849	3.20	11	756	74	34	21%	39%	34%	91%	5%	39%	1.9	20.8
c. Sep component	1,583,496	1,543,817	5,658,632	279,837	3.18	11	756	74	34	21%	39%	34%	91%	5%	39%	1.9	20.7
d. Oct component	1,608,478	1,567,137	5,728,780	280,771	3.16	11	756	73	34	21%	39%	34%	91%	5%	39%	1.7	18.4
e. MoM profile change	24,981	23,320	70,148	934	-0.02	0	0	0	0	0%	0%	0%	0%	0%	0%	-12.5%	-11.3%
f. Oct pay-offs	26,494	25,534	89,151	297,391	3.43	14	749	75	35	25%	41%	33%	92%	5%	35%	100.0	100.0
g. Sep pay-offs	29,818	28,782	99,062	301,312	3.46	14	750	76	35	26%	42%	33%	93%	4%	35%	100.0	100.0
h. Aug-21 issuances	75,544	75,048	260,029	290,521	3.14	2	747	74	36	22%	41%	32%	95%	2%	46%	0.4	4.3
i. Aug-19 issuances	21,750	20,343	94,709	229,646	4.18	30	746	79	36	14%	48%	10%	91%	5%	67%	4.7	43.9
Fannie Mae universe																	
j. Oct universe	9,742,914	2,570,344	11,865,213	314,363	3.55	34	751	74	N/A	N/A	39%	23%	90%	6%	43%	2.1	22.2
k. Diff vs. Oct component	8,134,436	1,003,208	6,136,433	33,591	0.39	23	-4	1	N/A	N/A	0%	-11%	-2%	1%	4%	0.4	3.8

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 h-i: 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 j: 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)	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
85k	\$11,558	\$10,303	-8%	6%	-19%	1%	23%	-11%	-11%	7%	-6%	1%	3%	0%
110k	\$25,046	\$22,158	-8%	12%	-23%	5%	18%	-18%	-11%	11%	-6%	6%	2%	-6%
125k	\$25,519	\$22,509	-4%	2%	-14%	1%	23%	-22%	-10%	6%	-3%	3%	5%	-4%
150k	\$58,982	\$51,780	-10%	5%	-16%	5%	18%	-23%	-14%	11%	-7%	11%	3%	-4%
175k	\$77,133	\$67,077	-11%	5%	-15%	5%	14%	-23%	-15%	11%	-5%	11%	2%	-5%
200k	\$103,167	\$89,016	-14%	7%	-12%	0%	11%	-24%	-17%	11%	-3%	12%	2%	-7%
225k	\$115,570	\$98,912	-13%	7%	-10%	3%	10%	-25%	-20%	13%	-5%	13%	3%	-8%
NY	\$48,488	\$44,475	-12%	-2%	-18%	-1%	17%	-26%	-22%	-6%	-9%	9%	-12%	17%
TX	\$93,386	\$78,946	-15%	7%	-3%	-7%	20%	-28%	-16%	8%	-7%	15%	-2%	-8%
FL	\$84,808	\$73,294	-17%	13%	-15%	7%	14%	-26%	-19%	11%	-8%	9%	6%	-8%
LTV>=95	\$167,299	\$136,762	-10%	10%	-9%	8%	7%	-28%	-20%	10%	-6%	18%	-2%	-15%
Investor***	\$53,734	\$43,911	-16%	11%	-8%	6%	11%	-25%	-19%	-6%	-12%	21%	9%	-2%
FICO<700	\$117,858	\$94,378	-8%	9%	-16%	5%	12%	-21%	-13%	4%	-8%	12%	0%	-8%
Non-Spec	\$1,037,300	\$815,490	-13%	9%	-9%	2%	-1%	-37%	-20%	11%	-9%	29%	-1%	-15%
Retail	\$1,209,314	\$1,014,705	-12%	9%	-11%	4%	9%	-31%	-18%	11%	-5%	21%	3%	-10%
Correspondent	\$477,607	\$367,512	-11%	6%	-10%	2%	4%	-30%	-22%	7%	-10%	15%	-1%	-13%
Broker	\$334,605	\$267,260	-13%	13%	-8%	1%	-7%	-34%	-14%	8%	-11%	33%	-8%	-18%
Purchase	\$769,110	\$647,784	-13%	5%	-10%	5%	10%	-29%	-23%	5%	-11%	14%	-1%	-11%
Refi	\$846,864	\$677,739	-13%	12%	-8%	1%	-1%	-36%	-14%	14%	-4%	29%	1%	-14%
Cash-out	\$404,484	\$323,953	-9%	9%	-14%	1%	3%	-28%	-18%	9%	-8%	19%	-1%	-9%
Principal	\$1,853,515	\$1,509,320	-12%	8%	-10%	3%	3%	-32%	-18%	10%	-7%	22%	-1%	-13%
Second Home	\$72,697	\$61,358	-17%	8%	-12%	2%	9%	-26%	-23%	7%	-8%	8%	4%	0%
Investment***	\$94,123	\$78,798	-13%	8%	-10%	6%	14%	-23%	-20%	-1%	-10%	16%	6%	0%
Standard Appraisal	\$1,320,364	\$1,078,837	-12%	8%	-11%	5%	8%	-29%	-20%	7%	-8%	16%	0%	-11%
Appraisal Waiver	\$699,979	\$570,639	-14%	10%	-9%	-2%	-4%	-38%	-14%	15%	-6%	33%	-1%	-14%

*** 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](#).

[Benchmark CPR Dashboard](#)

[Benchmark CPR Historical Data Download](#)

[Benchmark CPR Methodology Overview](#)

[Benchmark CPR Video Tutorial](#)

[MBS Cohort Analyzer Dashboard](#)

[MBS Cohort Analyzer User Guide](#)

[MBS Cohort Analyzer Video](#)

[Data Dynamics Overview](#)

Stay Connected

[Sign up for news, commentaries, and announcements](#)

This commentary is provided by Fannie Mae solely for informational purposes based on information available at the time it is published. This document is based upon information and assumptions (including financial, statistical or historical data and computations based upon such data) that we consider reliable and reasonable, but we do not represent that such information, assumptions, data, or computations are accurate or complete, or appropriate or useful in any particular context, including the context of any investment decision, and it should not be relied upon as such. It is subject to change without notice. Fannie Mae disclaims any responsibility for updating the commentary or the opinions or information discussed herein. The opinions presented in the commentary represent the views of professionals employed by Fannie Mae of certain factors that may impact the performance of certain loans in Connecticut Avenue Securities reference pools. The effect of factors other than those assumed, including factors not mentioned, considered or foreseen, by themselves or in conjunction with other factors, could produce dramatically different performance or results. Statements in this commentary regarding the future impact of data quality improvements are forward-looking, and actual results may be materially different due to, among other reasons, those described in “risk factors” in our most recent Form 10-K and Form 10-Q. Fannie Mae does not represent that such views are the sole or most accurate explanations for loan performance or that there are not credible alternative views or opinions. Fannie Mae publishes this commentary as a service to interested parties and disclaims any liability for any errors contained herein. Fannie Mae securities are more fully described in applicable offering circulars, prospectuses, or supplements thereto (such applicable offering circulars, prospectuses and supplements, the “Offering Documentation”), which discuss certain investment risks and contain a more complete description of such securities. All statements made herein are qualified in their entirety by reference to the Offering Documentation. An offering only may be made through delivery of the Offering Documentation. Investors considering purchasing a Fannie Mae security should consult their own financial and legal advisors for information about such security, the risks and investment considerations arising from an investment in such security, the appropriate tools to analyze such investment, and the suitability of such investment in each investor’s particular circumstances.