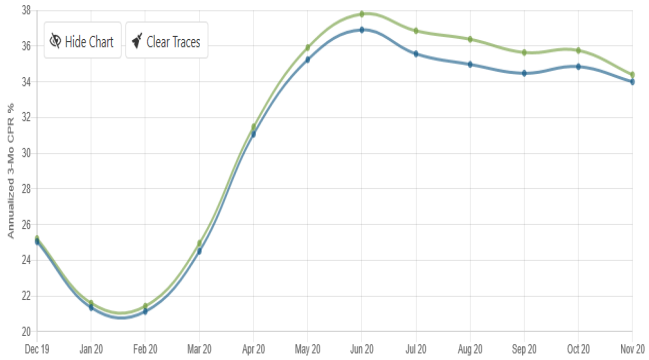
Fannie Mae Benchmark CPR™ Commentary – Dec 2020

30 Year Benchmark CPR



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

Fannie Mae Freddie Mac

Exhibit 1

The November 30-year Benchmark CPR3 (BCPR3) for the Fannie Mae cohort decreased slightly, coming in at 34.0 CPR. That represents a 2.4% decrease from the 34.8 CPR observed in October. The driving factor for the slowdown appear to be the lower day count (by 2 days) that includes two federal holidays and weaker seasonality despite modestly lower mortgage rates and an increase in lender staffing.

The most recent one-month component decreased 11.2% (from 35.5 to 31.5 CPR) as illustrated in Table 1a. There continues to be significant and persistent rate incentive in the market; using 2.71% as the prevailing 30-year mortgage rate, we estimate that 68% of all mortgages are at least 50 bps in the money, and this rises above 79% when looking at conventional mortgages only. Prepayment speeds are expected to remain elevated as the industry continues to hire more staff to manage the elevated demand despite the traditional seasonal slowdown.

Table 1a: Components of Fannie Mae's 30 Year Oct and Nov BCPR Results

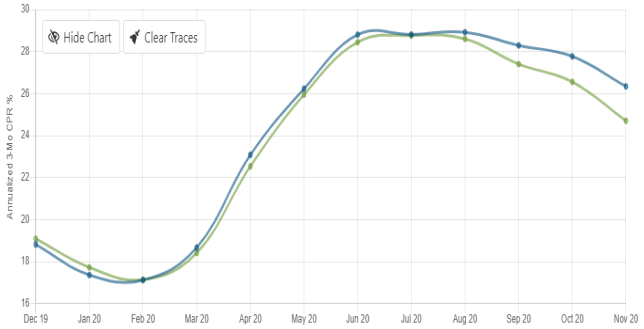
30 Yr FNM Cohort		BCPR3 Components			
Reporting Period	BCPR3	Aug	Sep	Oct	Nov
Oct 2020	34.8	33.9	35.0	35.5	
Nov 2020	34		35.0	35.5	31.5

Table 1b: Components of Fannie Mae's 15 Year Oct and Nov BCPR Results

15 Yr FNM Cohort		BCPR3 Components			
Reporting Period	BCPR3	Aug	Sep	Oct	Nov
Oct 2020	27.8	27.8	28.1	27.4	
Nov 2020	26.3		28.1	27.4	23.8

Table 1: Components of Fannie Mae's Oct and Nov BCPR Results

15 Year Benchmark CPR



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

Fannie Mae Freddie Mac

Exhibit 2

Similar to the 30-year metric, the Fannie Mae Cohort 15-year Benchmark CPR3 (BCPR3) slowed down in November to 26.3 CPR from the prior month's 27.8 CPR. This marks three months in a row of slightly slower speeds after three months of relatively stable prints. The November 1-month component speed decreased to 23.8 CPR from 27.4 CPR in October. See Table 1b for the one-month components of FNM cohort 15-year BCPR3.

Exploring the New MBS Cohort Analyzer

We invite you to try out the recently released MBS Cohort Analyzer, now available within the MBS section on Data Dynamics. This new tool allows users to analyze historical prepayments, via S-Curves and WALA ramps generated on user-defined agency MBS collateral cohorts. Please see the MBS Cohort Analyzer User Guide and a Video Tutorial to learn more about this exciting new feature. Below we will share some simple examples of the types of performance comparisons that are facilitated by this new tool. We encourage readers to replicate these analyses to gain comfort with the Cohort Analyzer's feature set.

In this first example (Exhibit 3) we use the S-Curve analysis to evaluate various loan size buckets. Given the level of pay-ups for spec loan balance pools, there is some worry that the speed differential between low and high loan balance collateral is narrowing and thus eroding the call protection of low loan balance pools. To test this, we plot the S-Curves for the current month activity (left-hand chart) and those from June 2020 activity (right-hand chart) and observe that the speed sensitivity today is right on top of where it was six months ago with a CPR differential of 23.5% vs 23.9% at 50bps rate incentive between the <=150k and >300k cuts. This pattern suggests that there has not been erosion of the call protection provided by lower loan balance collateral.

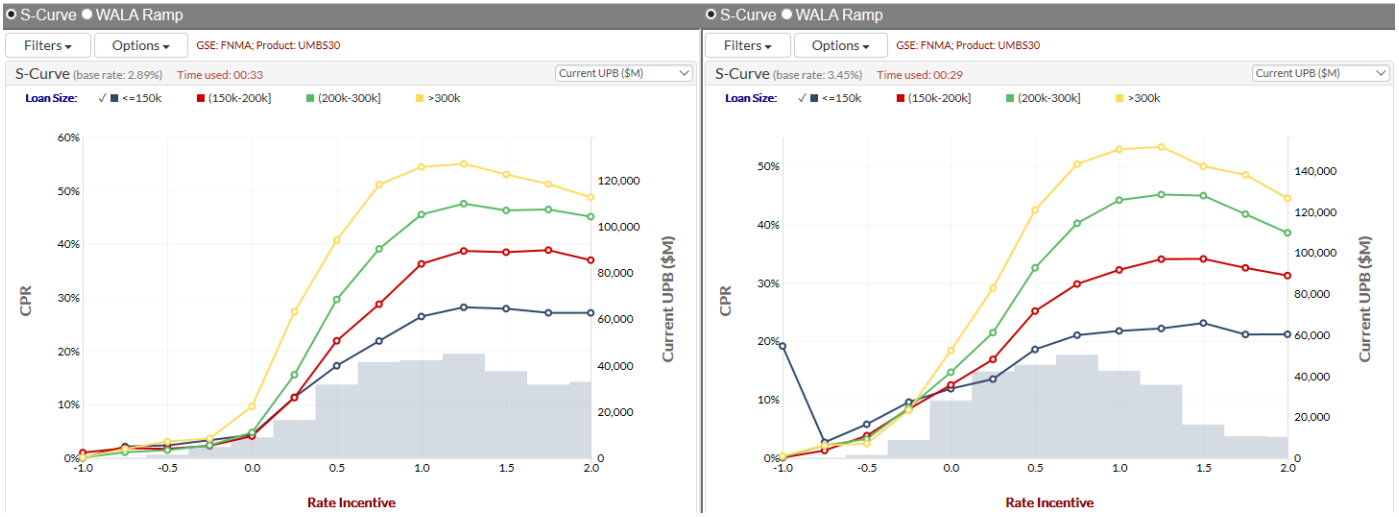


Exhibit 3

In the second example (Exhibit 4), we further refine the S-Curve analysis, cutting the population by Channel, to evaluate whether the same observation holds across all origination channels. Once again, the left-hand chart is current month activity and the right-hand chart is June 2020 activity. This view shows a marked increase in the steepness of Broker channel S-Curves over the course of 2H2020, suggesting that broker-originated low balance collateral has experienced some deterioration in call protection since June.

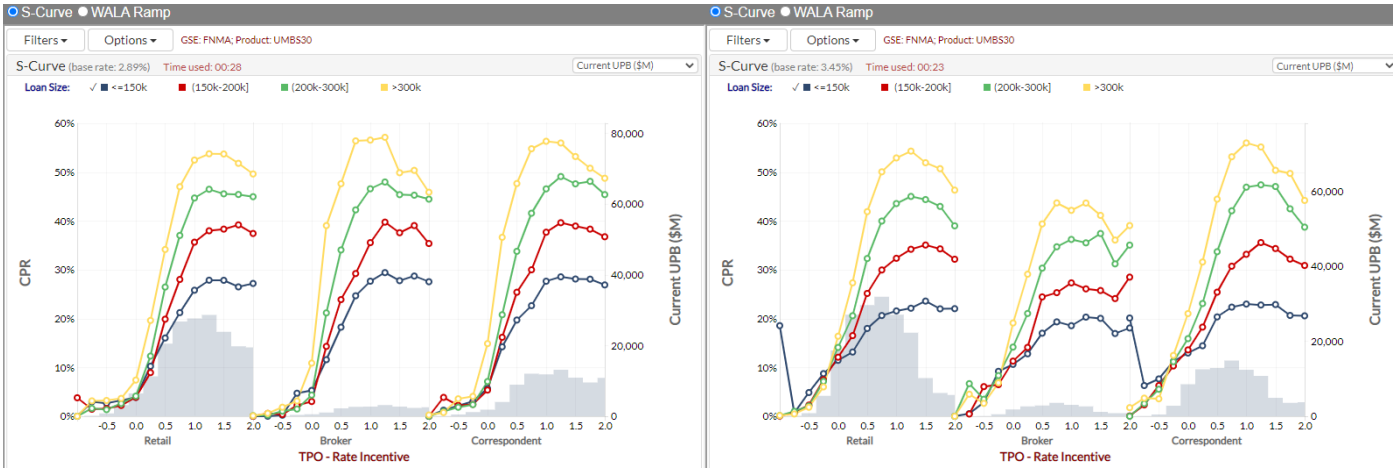


Exhibit 4

The October edition of our commentary touched on the relative performance of GEO states other than NY, TX and FL. Exhibit 5 below further explores this by looking at S-Curves for additional states of GA, OH, PA, NJ and MN. The left-hand chart shows S-Curves on 2017-2020 issuance for these states along with TX and FL and the right-hand chart provides context by showing the same for fast states of CA, CO and AZ. To reduce loan size bias the population is filtered to >250K size. To guard against a single month phenomenon, we extend the performance window to the most recent 3 months. Table 2 shows the speeds at 50 bps incentive highlighting the value in these alternate GEO stories.

Exhibit 5

State	FL	TX	PA	NJ	GA	MN	OH	CA	AZ	CO
CPR @ 50 bps ITM	18.5	29.4	30.4	32.6	32.7	33.9	35.2	47.5	44.3	42.6

Table 2

Next up, we look at the WALA Ramp feature (Exhibit 6) to evaluate the seasoning ramps between loan size buckets. The left-hand chart illustrates the Fannie Mae 30yr cohort with an issuance from 2018-2020 YTD as of December 2020, while the right-hand chart shows prepayments for the population as of June 2020. Observe that both populations have a steep ramp-up beginning in Month 3 with the more recent population beginning to flatten out after month 11 and the older population flattening between Months 12-14. Also noteworthy is the more plateau-like speed profile of the more recent population vs the hump-shape curve exhibited by the older population.

Exhibit 6

Finally, we use the WALA Ramp feature (Exhibit 7) to evaluate the seasoning ramps between loan channels. The left-hand chart illustrates the Fannie Mae 30yr cohort with an issuance from 2018-2020 YTD as of December 2020, while the right-hand chart isolates performance for the population as of June 2020. What is most striking about this view is that prepayment ramps across all three channels were fairly aligned in the older population, but the broker channel ramps up much faster in the newer population with the correspondent channel also diverging from retail.

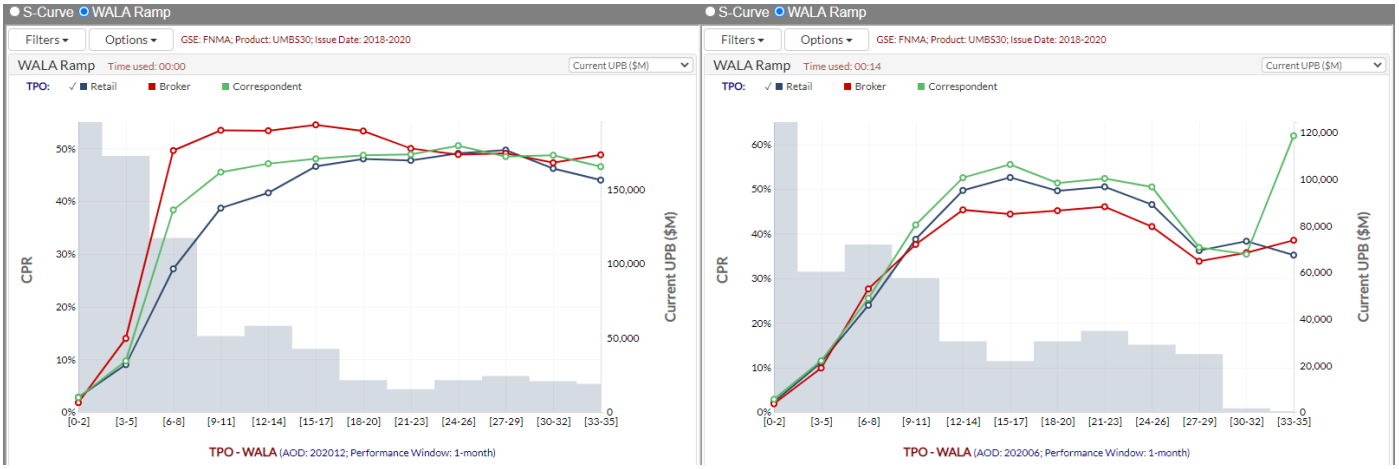


Exhibit 7

Historical Benchmark CPR Data

Users of the Benchmark CPR tool now have access to historical results going back to 2017 in a downloadable format. Check out the new Download MBS Data landing page within the MBS section of Data Dynamics to view this added capability. Tables 3 and 4 below provides a summary of key trends:

Summary of Fannie Mae 30 Year Historical BCPR Data

Metric	Nov-20	Oct-2020	Sep-2020	Dec-2019
Cohort BCPR3	**34.0**	**34.8**	**34.5**	**25.0**
Cohort BCPR1	26.3	30.0	29.2	19.9
Cohort BCPR6	43.3	43.4	43.0	27.8
Top 25 By UPB BCPR3	37.2	37.7	37.3	26.2
Top 25 by UPB % off Coh NR Adj	108	107	107	106
Top 100 lenders BCPR3 range (Max-Min)	51.6	54.8	51.9	30.2
Top 100 lenders BCPR3 Standard Dev	9.0	9.0	8.4	6.1
Total Current UPB ($B)	**961**	**917**	**866**	**673**
UPB Share 0-90 % of Cohort NR Adj	33%	32%	31%	24%
UPB Share 90-110 % of Cohort NR Adj	32%	32%	31%	51%
UPB Share 110-130 % of Cohort NR Adj	26%	33%	33%	11%
UPB Share > 130 % of Cohort NR Adj	10%	4%	4%	13%
UPB Share with >10% increase	6%	9%	5%	2%
UPB Share with 5-10% increase	2%	11%	11%	1%
UPB Share with 0-5% increase	22%	56%	35%	4%
UPB Share with 0-5% decline	51%	15%	27%	21%
UPB Share with 5-10% decline	15%	5%	14%	46%
UPB Share with >10% decline	6%	4%	9%	27%

Table 3

Summary of Fannie Mae 15 Year Historical BCPR Data

Metric	Nov-20	Oct-2020	Sep-2020	Dec-2019
Cohort BCPR3	**26.3**	**27.8**	**28.3**	**18.8**
Cohort BCPR1	19.6	22.5	22.6	15.9
Cohort BCPR6	36.8	37.1	36.4	19.8
Top 25 By UPB BCPR3	28.5	29.7	30.2	20.6
Top 25 by UPB % off Coh NR Adj	112	110	110	106
Top 100 lenders BCPR3 range (Max-Min)	61.2	65.8	57.9	23.2
Top 100 lenders BCPR3 Standard Dev	9.9	9.9	9.8	5.4
Total Current UPB ($B)	**155**	**135**	**123**	**67**
UPB Share 0-90 % of Cohort NR Adj	47%	47%	45%	41%
UPB Share 90-110 % of Cohort NR Adj	9%	10%	17%	19%
UPB Share 110-130 % of Cohort NR Adj	11%	12%	6%	14%
UPB Share > 130 % of Cohort NR Adj	33%	35%	35%	33%
UPB Share with >10% increase	20%	11%	15%	18%
UPB Share with 5-10% increase	27%	11%	16%	9%
UPB Share with 0-5% increase	27%	42%	25%	30%
UPB Share with 0-5% decline	10%	16%	21%	30%
UPB Share with 5-10% decline	5%	9%	13%	5%
UPB Share with >10% decline	10%	12%	10%	9%

Table 4

Heatmap Reports

This month, we feature Heatmaps* on the Fannie Mae 30yr and 15yr cohorts for Loan Channel, Loan Purpose, Occupancy and Appraisal Waiver (See Exhibits 8-12 below).

**Heatmaps depicted using the Absolute dropdown from the Measure option*

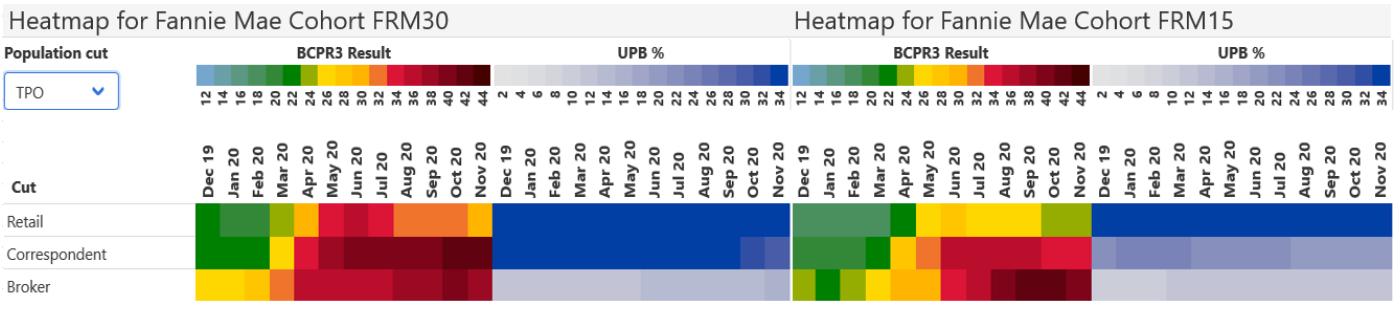


Exhibit 8

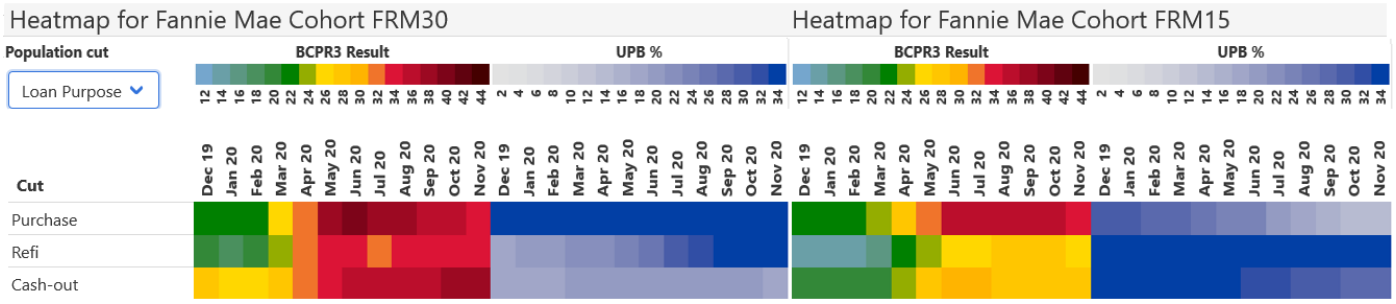


Exhibit 9

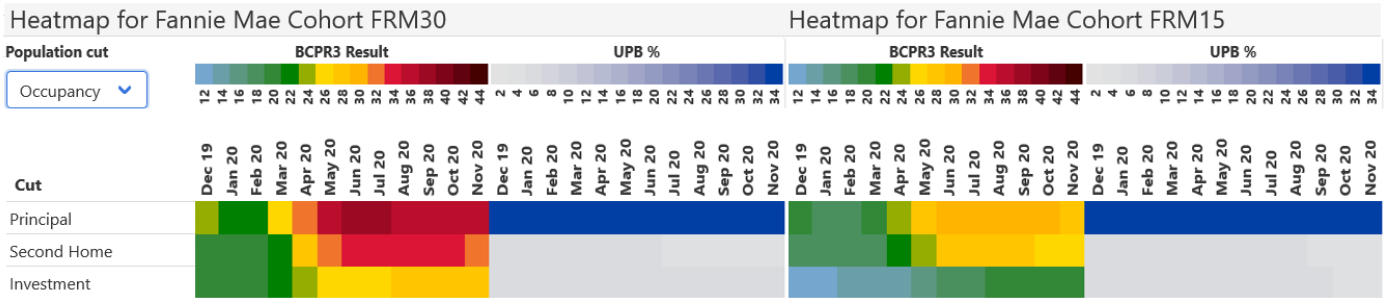


Exhibit 10

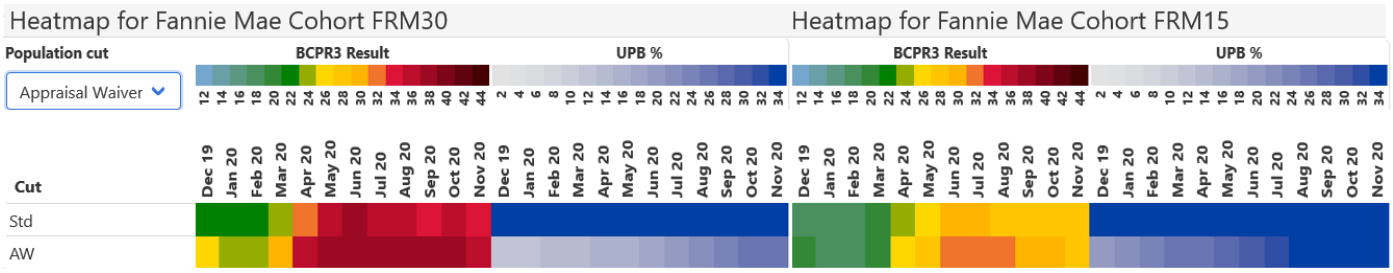


Exhibit 11

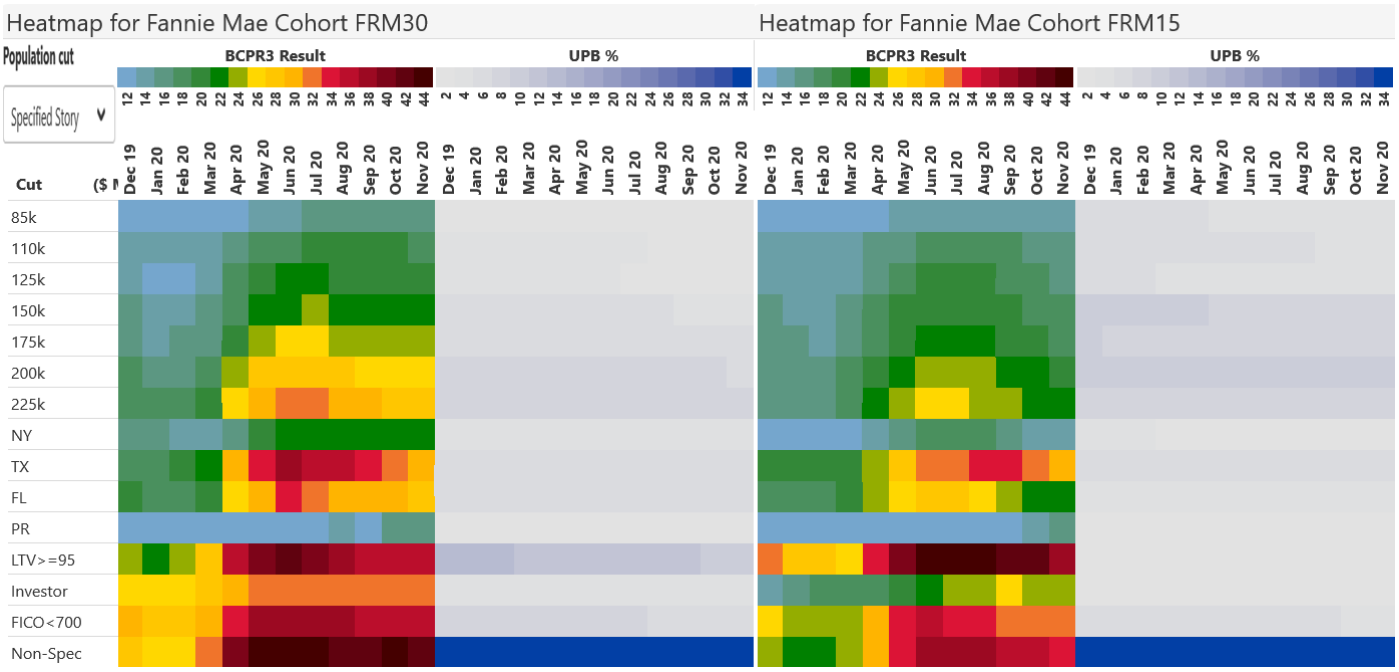


Exhibit 12

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

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Benchmark CPR Video Tutorial

MBS Cohort Analyzer Dashboard

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