

Estimate of Eligible RefiNow™ Population in Outstanding Fannie Mae MBS*

	MBS Issuance Vintage									
	<= 2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
a. UPB Outstanding (\$B)	476.2	62.9	108.9	182.5	160.3	131.7	214.9	1,021.0	963.2	3,321.6
b. Prior Est. Eligible UPB Outstanding (\$B)	24.0	7.4	12.8	18.5	22.6	25.0	37.1	33.7	0.2	181.3
c. New Est. Eligible UPB Outstanding (\$B)	81.4	12.3	21.4	32.4	38.9	41.1	61.5	63.7	0.8	353.5
d. New Est. Eligible UPB % of Outstanding (c/a)	17%	20%	20%	18%	24%	31%	29%	6%	0%	11%
e. Increase in Est. Eligible UPB (\$B) (c-b)	57.4	4.9	8.6	13.9	16.3	16.1	24.4	30.0	0.6	172.2
f. Increase in Est. Eligible UPB % of Outstanding (e/a)	12%	8%	8%	8%	10%	12%	11%	3%	0%	5%
g. Loans Outstanding	4,450,916	526,442	745,457	1,105,217	980,196	782,032	1,060,577	3,953,292	3,494,675	17,098,804
h. Prior Est. Eligible Loans Outstanding	243,239	80,626	117,319	152,153	183,438	194,743	244,340	185,526	1,562	1,402,946
i. New Est. Eligible Loans Outstanding	1,010,729	125,175	180,212	252,872	300,619	305,581	388,026	357,355	6,334	2,926,903
j. New Est. Eligible Loans % of Outstanding (i/g)	23%	24%	24%	23%	31%	39%	37%	9%	0%	17%
k. Increase in Est. Eligible Loans (i-h)	767,490	44,549	62,893	100,719	117,181	110,838	143,686	171,829	4,772	1,523,957
l. Increase in Est. Eligible Loans % of Outstanding (k/g)	17%	8%	8%	9%	12%	14%	14%	4%	0%	9%



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New Est. Eligible as % of Outstanding UPB	MBS Issuance Vintage									
	<= 2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Max UPB <= 85K	39%	37%	39%	41%	47%	55%	57%	22%	0%	36%
Max UPB <= 110K	34%	36%	39%	40%	46%	53%	55%	19%	0%	30%
Max UPB <= 125K	32%	33%	39%	38%	45%	52%	52%	17%	0%	26%
Max UPB <= 150K	30%	33%	36%	37%	43%	50%	52%	16%	0%	26%
Max UPB <= 175K	26%	29%	32%	32%	39%	48%	49%	14%	0%	21%
Max UPB <= 200K	36%	35%	31%	29%	37%	44%	45%	12%	0%	17%
Max UPB <= 225K	35%	53%	49%	54%	60%	60%	45%	12%	0%	13%
Max UPB <= 250K	37%	44%	46%	53%	63%	75%	67%	11%	0%	11%
NY	14%	12%	12%	11%	17%	23%	21%	5%	0%	8%
FL	10%	6%	7%	35%	42%	54%	11%	3%	0%	2%
TX	6%	3%	6%	14%	51%	75%	42%	2%	0%	2%
LTV >= 95	2%	2%	9%	14%	21%	28%	28%	8%	0%	8%
Investor	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
FICO < 700	15%	12%	13%	13%	16%	18%	21%	7%	0%	7%
Non-spec	14%	15%	15%	12%	17%	22%	19%	4%	0%	8%
Total	17%	20%	20%	18%	24%	31%	29%	6%	0%	11%



Estimate of Eligible RefiNow Population in Outstanding Fannie Mae MBS*

		MBS Issuance Vintage										
MBS coupon (rounded)	New Est. Eligible as % of Outstanding UPB	<= 2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	
	<= 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	2.5	0%	0%	0%	1%	1%	6%	10%	3%	0%	2%	
	3	10%	8%	13%	14%	11%	16%	23%	6%	0%	8%	
	3.5	18%	20%	24%	26%	27%	28%	33%	28%	1%	23%	
	4	18%	23%	25%	25%	30%	32%	35%	26%	5%	26%	
	4.5	23%	22%	20%	20%	25%	36%	34%	21%	10%	27%	
	5	28%	20%	21%	29%	23%	31%	30%	19%	18%	28%	
	5.5	37%	40%	30%	38%	35%	24%	22%	23%	21%	33%	
	6	37%	47%	47%	39%	34%	31%	22%	35%	18%	36%	
	>= 6.5	36%	55%	16%	40%	39%	34%	25%	48%	N/A	36%	
Total	17%	20%	20%	18%	24%	31%	29%	6%	0%	11%		

* Data provided in this analysis is an estimate of the change in the number of loans that may be potentially eligible for RefiNow based on the expanded eligibility criteria announced on October 20, 2021, as well as other assumptions detailed below. The prior estimated potentially eligible population represents the estimated eligible population based on the original terms of the RefiNow program, including the post-COVID performance updated guidelines released in June 2021. The new estimated potentially eligible population represents the estimated eligible population when (1) maximum AMI is increased from 80% to 100%; (2) the maximum seasoning requirement is removed; and (3) the \$50 payment reduction threshold is changed to simply a payment reduction. No adjustment is made for the removal of the closing cost cap.

These estimates are based on loans currently in Fannie Mae MBS pools as of August 31, 2021 and are based on various assumptions, including the following:

- UPB shown is Investor Balance, not financial statement data.
- Includes all Fannie Mae pool prefixes. AMI estimates are based on FHFA AMI levels at the time of acquisition.
- Eligibility will also depend on (among other factors) the borrower(s) current status, including current income, which is not publicly available or available to Fannie Mae. For the purposes of this estimate, Fannie Mae based its analysis on income that was used to qualify for the mortgage when it was originated; current income may be materially different from that historic number and therefore, would have a direct impact on potential eligibility.
- Calculations assume that borrowers refinance into a 3.00% 30-year fixed-rate product. Mortgage insurance is not factored into payment reduction calculations.
- Closing costs of \$2,200 plus 45 basis points of the unpaid principal balance are assumed to be rolled into the new loan balance.
- Seasoning requirements are applied as of December 1, 2021.

The methodology used to estimate the prior eligible population has been updated from our initial analysis to incorporate the post-COVID performance updated guidelines released in June 2021. In addition, population estimates now include an assumption about closing costs, which are assumed to be rolled into the balance of the new loan. These methodology updates on had a minor impact on our estimates of the prior potentially eligible population.



Estimate of Eligible RefiNow Population in Outstanding Fannie Mae Connecticut Avenue Securities® (CAS)**

CAS Vintage	CAS Deal Type	UPB Outstanding (\$B)	Prior Est. Eligible UPB (\$B)	New Est. Eligible UPB (\$B)	New Est. Eligible UPB % of Outstanding	Total Loans (MM)	Prior Est. Eligible Loans (MM)	New Est. Eligible Loans (MM)	New Est. Eligible Loans % of Loan Count
2013	G1	6.1	0.8	1.3	22%	0.0	0.0	0.0	29%
2014	G1	45.4	4.8	8.1	18%	0.3	0.0	0.1	25%
	G2	11.4	1.5	2.7	24%	0.1	0.0	0.0	33%
2015	G1	21.0	3.3	5.3	25%	0.1	0.0	0.0	33%
	G2	11.2	2.0	3.4	31%	0.1	0.0	0.0	41%
2016	G1	36.2	4.8	8.2	23%	0.2	0.0	0.1	30%
	G2	23.0	3.6	6.3	27%	0.1	0.0	0.0	37%
2017	G1	55.9	6.3	11.1	20%	0.3	0.0	0.1	27%
	G2	33.0	4.6	8.2	25%	0.2	0.0	0.1	34%
2018	G1	44.2	7.3	11.6	26%	0.2	0.1	0.1	34%
	G2	20.1	4.2	6.8	34%	0.1	0.0	0.0	44%
2019	G1	25.8	4.9	7.5	29%	0.1	0.0	0.0	36%
	G2	25.0	6.1	9.6	38%	0.1	0.0	0.1	48%
2020	G1	10.2	1.7	2.9	28%	0.0	0.0	0.0	36%
	G2	13.1	3.0	4.9	37%	0.1	0.0	0.0	47%
Grand Total		381.8	59.1	97.9	26%	2.1	0.5	0.7	34%



Estimate of Eligible RefiNow Population in Outstanding Fannie Mae Credit Insurance Risk Transfer™ Transactions (CIRT™)**

CIRT Vintage	CIRT Deal Type	UPB Outstanding (\$B)	Prior Est. Eligible UPB (\$B)	New Est. Eligible UPB (\$B)	New Est. Eligible UPB % of Outstanding	Total Loans (MM)	Prior Est. Eligible Loans (MM)	New Est. Eligible Loans (MM)	New Est. Eligible Loans % of Loan Count
2014	Low LTV	1.0	0.2	0.3	27%	0.0	0.0	0.0	35%
2015	ARM	0.9	0.0	0.1	7%	0.0	0.0	0.0	8%
2016	Low LTV	3.9	0.5	0.9	23%	0.0	0.0	0.0	31%
	High LTV FE	1.2	0.2	0.3	25%	0.0	0.0	0.0	34%
2017	Low LTV	14.8	1.6	2.9	20%	0.1	0.0	0.0	27%
	Low LTV FE	4.8	0.7	1.2	25%	0.0	0.0	0.0	32%
	High LTV	6.3	0.9	1.6	26%	0.0	0.0	0.0	35%
	High LTV FE	1.6	0.3	0.5	32%	0.0	0.0	0.0	42%
	15yr	5.7	0.3	0.6	10%	0.0	0.0	0.0	14%
2018	Low LTV	12.9	2.1	3.3	26%	0.1	0.0	0.0	33%
	Low LTV FE	2.9	0.5	0.8	28%	0.0	0.0	0.0	36%
	High LTV	6.1	1.3	2.1	34%	0.0	0.0	0.0	44%
	High LTV FE	2.2	0.5	0.8	37%	0.0	0.0	0.0	47%
	15yr	4.3	0.4	0.8	18%	0.0	0.0	0.0	25%
2019	Low LTV	7.1	1.3	2.1	29%	0.0	0.0	0.0	36%
	Low LTV FE	3.5	0.5	0.9	25%	0.0	0.0	0.0	33%
	High LTV	8.4	2.1	3.2	38%	0.0	0.0	0.0	48%
	High LTV FE	3.0	0.6	1.0	32%	0.0	0.0	0.0	41%
	15yr	6.2	0.7	1.3	20%	0.0	0.0	0.0	29%
	Lender Recourse	0.5	0.3	0.4	77%	0.0	0.0	0.0	81%
2020	Low LTV	7.4	1.1	2.0	27%	0.0	0.0	0.0	34%
	Low LTV FE	15.1	1.1	1.9	13%	0.1	0.0	0.0	18%
	High LTV	5.8	1.3	2.1	37%	0.0	0.0	0.0	46%
	High LTV FE	11.5	1.0	1.8	16%	0.0	0.0	0.0	22%
Grand Total		137.2	19.7	32.8	24%	0.7	0.1	0.2	32%



** Data provided in this analysis is an estimate of the change in the number of loans referenced in CRT transactions that may be potentially eligible for RefiNow based on the expanded eligibility criteria announced on October 20, 2021, as well as other assumptions detailed below. The prior estimated potentially eligible population represents the estimated eligible population based on the original terms of the RefiNow program, including the post-COVID performance updated guidelines released in June 2021. The new estimated potentially eligible population represents the estimated eligible population when (1) maximum AMI is increased from 80% to 100%; (2) the maximum seasoning requirement is removed; and (3) the \$50 payment reduction threshold is changed to simply a payment reduction. No adjustment is made for the removal of the closing cost cap.

All estimates (both prior and new) are based on loans currently in Fannie Mae CAS and CIRT reference pools as of July 31, 2021 and are based on various assumptions, including the following:

- UPB shown is Current UPB, not financial statement data.
- AMI estimates are based on FHFA AMI levels at the time of acquisition.
- Eligibility will also depend on (among other factors) the borrower(s) current status, including current income, which is not publicly available or available to Fannie Mae. For the purposes of this estimate, Fannie Mae based its analysis on income that was used to qualify for the mortgage when it was originated; current income may be materially different from that historic number and therefore, would have a direct impact on potential eligibility.
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