

FNMA Prepayment Speed Comparison

September 2018

FNMA Jumbos vs FNMA Generic

	Jumbo Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
15yr Jumbo 2	85	15.6	9.5	7.6	5.0	1.2	0.2	60%	48%	39%	13%	3%
2013	63	20.0	13.4	4.2	5.7	1.1	-0.2	67%	31%	40%	11%	-2%
15yr Jumbo 2.5	1,768	7.0	-0.9	-0.9	-1.9	-2.1	-1.7	-12%	-11%	-27%	-30%	-23%
2017	100	6.0	0.4	0.7	-1.6	-0.9	-1.8	6%	9%	-33%	-18%	-49%
2016	660	4.4	-2.8	-0.2	-2.6	-1.5	-1.5	-63%	-2%	-45%	-22%	-24%
2015	267	10.4	2.1	-2.0	-0.5	-2.6	-2.0	20%	-24%	-5%	-35%	-27%
2014	39	2.3	-5.9	0.6	-2.2	-3.6	-4.3	-262%	5%	-26%	-48%	-68%
2013	413	8.4	-0.3	-2.9	-2.9	-2.5	-1.5	-4%	-37%	-42%	-32%	-18%
2012	282	9.0	0.5	-0.2	-0.4	-2.4	-1.0	6%	-2%	-4%	-30%	-12%
15yr Jumbo 3	405	9.7	0.9	-1.9	2.4	0.0	0.6	9%	-20%	19%	0%	5%
2017	80	22.6	15.8	-1.8	7.0	2.5	4.3	70%	-25%	47%	24%	38%
2012	87	6.2	-3.6	-0.1	0.0	-3.3	-0.9	-58%	-1%	0%	-39%	-9%
2011	169	8.2	-1.5	-0.6	2.2	0.1	-1.0	-18%	-5%	16%	1%	-9%
15yr Jumbo 3.5	149	17.4	7.5	-0.5	1.5	2.9	1.0	43%	-5%	12%	20%	8%
2011	93	16.3	5.5	-2.4	0.3	2.9	1.2	34%	-22%	2%	19%	9%
30yr Jumbo 2.5	334	4.3	-0.8	1.0	0.2	-0.1	-1.1	-19%	12%	2%	-2%	-21%
2016	174	0.5	-3.6	-1.3	-3.4	-0.3	-1.0	-807%	-31%	-183%	-6%	-29%
2012	151	8.7	2.8	4.3	4.8	0.7	-0.3	32%	35%	40%	9%	-4%
30yr Jumbo 3	29,303	4.8	-1.9	-2.6	-2.4	-2.3	-1.6	-41%	-43%	-42%	-39%	-26%
2018	120	5.4	4.3	-1.8	1.5	-0.2	-	78%	-344%	40%	-7%	-
2017	1,231	1.6	-1.7	-2.5	-2.1	-1.6	-0.5	-109%	-147%	-117%	-74%	-20%
2016	12,981	4.5	-2.0	-2.9	-2.5	-2.2	-1.4	-44%	-53%	-47%	-40%	-26%
2015	2,708	5.5	-1.4	-2.1	-1.8	-2.1	-1.5	-25%	-30%	-27%	-30%	-23%
2014	511	3.8	-2.8	-3.8	-3.9	-3.9	-2.8	-74%	-65%	-75%	-73%	-45%
2013	5,813	5.5	-1.8	-1.5	-2.1	-2.1	-1.4	-33%	-19%	-31%	-29%	-19%
2012	5,936	5.0	-1.8	-2.6	-2.1	-2.3	-1.7	-37%	-42%	-35%	-37%	-27%
30yr Jumbo 3.5	25,275	6.3	-1.3	-1.7	-1.5	-1.7	0.1	-21%	-21%	-20%	-22%	1%
2018	1,200	2.8	-0.9	-1.1	-1.0	-0.9	-	-31%	-38%	-36%	-32%	-
2017	9,803	5.4	0.2	-0.4	0.3	0.4	2.4	4%	-6%	5%	6%	32%
2016	4,196	8.8	0.1	-1.8	-1.0	-1.1	2.2	1%	-19%	-10%	-11%	17%
2015	2,793	7.4	-1.9	0.9	-0.7	-1.0	0.3	-26%	7%	-7%	-9%	3%
2014	1,194	10.9	1.5	-1.2	-0.2	-2.5	-0.6	14%	-11%	-1%	-26%	-5%
2013	1,309	6.2	-2.5	0.6	-1.9	-2.0	-1.1	-40%	5%	-22%	-22%	-11%
2012	4,270	5.4	-2.6	-2.9	-2.8	-2.4	-1.3	-49%	-37%	-39%	-31%	-14%
2011	452	2.6	-5.1	-3.1	-5.0	-3.2	-2.2	-194%	-41%	-107%	-49%	-30%
2010	58	8.8	0.5	-9.4	-2.8	-4.3	-3.4	6%	-1304%	-43%	-77%	-52%
30yr Jumbo 4	11,268	7.1	-1.4	0.0	-0.6	-0.2	3.0	-19%	0%	-6%	-2%	21%
2018	3,370	5.5	1.3	3.9	2.3	1.1	-	23%	43%	33%	20%	-
2017	2,787	9.3	1.7	1.9	2.3	4.3	9.3	18%	17%	21%	34%	53%
2016	487	9.3	-2.2	-1.5	0.2	0.8	4.7	-24%	-12%	2%	6%	26%
2015	180	16.8	4.5	-2.6	-2.5	-0.9	2.1	26%	-21%	-21%	-6%	12%
2014	471	7.4	-3.8	-2.8	-2.2	-2.5	0.9	-52%	-23%	-20%	-21%	6%
2013	585	5.5	-5.7	-1.1	-3.3	-2.9	0.9	-105%	-9%	-35%	-28%	6%
2012	329	3.3	-7.1	-3.9	-6.0	-6.6	-2.3	-218%	-42%	-98%	-112%	-22%
2011	1,558	7.9	-1.3	-0.3	-1.0	-0.9	0.5	-16%	-2%	-10%	-8%	4%
2010	1,471	5.0	-4.3	-1.3	-1.8	-1.3	1.0	-86%	-13%	-20%	-13%	8%
30yr Jumbo 4.5	2,226	9.0	-0.6	3.0	1.2	3.2	4.6	-6%	20%	9%	21%	26%
2018	568	6.0	0.8	11.8	5.5	3.0	-	14%	67%	51%	40%	-
2017	152	18.1	7.0	6.0	6.5	11.8	19.5	39%	31%	34%	49%	61%
2011	427	9.7	-0.9	-3.5	-2.9	-0.9	0.7	-9%	-34%	-30%	-7%	5%
2010	683	5.6	-4.7	2.1	0.4	2.2	2.8	-83%	14%	3%	14%	17%
2009	321	11.5	0.4	2.0	-1.6	0.9	3.2	3%	13%	-14%	6%	19%
30yr Jumbo 5	516	11.0	-0.4	4.8	3.4	1.3	2.7	-4%	25%	20%	8%	15%
2011	44	23.4	10.5	15.9	8.6	1.9	3.3	45%	50%	37%	11%	17%
2010	152	12.5	-0.3	6.4	4.9	2.6	3.4	-3%	29%	25%	14%	17%
2009	196	11.1	-1.6	3.1	2.1	0.8	1.9	-14%	16%	12%	5%	11%

Source: Bloomberg

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FNMA Prepayment Speed Comparison

September 2018

FNMA 105-125 LTV vs FNMA Generic

	HLTV Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
30yr 105-125 LTV 3	3,125	9.3	2.6	3.6	2.5	2.3	2.0	28%	30%	23%	22%	21%
2016	171	8.3	1.8	-0.4	-0.7	-1.4	-1.3	22%	-4%	-11%	-21%	-24%
2015	56	2.0	-4.9	11.2	0.9	-1.8	-2.3	-250%	55%	10%	-26%	-38%
2013	1,818	8.9	1.6	2.8	1.7	1.5	1.4	18%	23%	16%	14%	14%
2012	1,068	10.5	3.7	4.0	3.0	2.8	1.8	35%	31%	27%	25%	18%
30yr 105-125 LTV 3.5	13,578	10.0	2.4	3.3	3.0	2.8	2.3	24%	25%	25%	23%	19%
2017	59	0.5	-4.7	-5.9	-4.4	-1.1	-2.6	-1053%	-2458%	-343%	-24%	-99%
2016	338	6.5	-2.2	-4.3	-3.3	-3.7	-3.5	-34%	-60%	-48%	-54%	-53%
2015	431	6.3	-3.0	-3.1	-3.1	-2.2	-3.2	-48%	-36%	-40%	-24%	-39%
2014	168	8.9	-0.5	1.3	0.7	0.2	-1.3	-6%	10%	6%	1%	-12%
2013	4,979	10.1	1.4	2.9	2.3	1.5	0.7	14%	20%	18%	12%	6%
2012	7,566	10.4	2.3	2.0	2.2	2.0	1.9	22%	16%	18%	16%	15%
30yr 105-125 LTV 4	9,141	11.3	2.7	2.1	3.0	2.7	1.7	24%	16%	23%	20%	13%
2018	38	7.6	3.3	-2.1	-1.0	-1.3	-	44%	-68%	-28%	-45%	-
2017	270	3.8	-3.8	-1.8	-1.3	-2.1	-3.8	-99%	-24%	-17%	-34%	-86%
2016	200	7.1	-4.4	-1.4	-2.3	-1.8	-2.6	-62%	-12%	-22%	-15%	-25%
2015	568	11.9	-0.5	-5.8	-2.9	-4.1	-5.5	-4%	-62%	-25%	-38%	-55%
2014	898	10.2	-1.1	-5.3	-3.1	-2.9	-3.4	-11%	-56%	-30%	-26%	-30%
2013	2,077	10.8	-0.4	0.0	-0.3	-0.4	-1.2	-4%	0%	-2%	-3%	-9%
2012	4,567	11.9	1.6	0.5	2.1	2.1	1.8	13%	3%	15%	15%	13%
2011	412	15.2	6.0	4.0	5.1	3.2	3.0	39%	25%	31%	22%	20%
2010	110	9.8	0.5	-3.1	0.9	2.8	3.8	5%	-37%	8%	20%	24%
30yr 105-125 LTV 4.5	3,507	13.0	3.5	4.3	3.8	3.1	1.8	27%	26%	25%	21%	12%
2017	26	0.2	-10.9	3.2	-6.4	-7.3	-6.9	-6781%	19%	-106%	-138%	-127%
2015	36	32.8	20.5	3.5	9.3	-0.1	-5.9	63%	19%	39%	-1%	-58%
2014	737	10.7	-2.6	-1.9	-1.2	-2.2	-2.9	-25%	-12%	-8%	-16%	-21%
2013	850	13.8	0.6	0.8	-0.6	-0.7	-1.9	4%	5%	-4%	-5%	-14%
2012	368	13.8	1.7	4.8	2.2	2.1	1.0	12%	25%	13%	13%	6%
2011	1,097	12.9	2.3	2.2	2.6	2.4	2.4	18%	14%	17%	16%	15%
2010	348	12.8	2.5	3.2	2.9	3.4	3.7	20%	19%	19%	20%	21%
30yr 105-125 LTV 5	1,063	12.0	0.7	3.8	3.1	3.2	2.6	6%	21%	19%	18%	15%
2013	50	14.7	1.1	-14.3	-2.9	-5.5	-5.6	7%	-377%	-21%	-45%	-46%
2011	610	11.4	-1.5	2.7	1.5	1.8	1.5	-13%	14%	9%	10%	8%
2010	315	13.9	1.1	2.5	2.1	2.4	2.7	8%	13%	12%	13%	14%
2009	55	10.7	-1.9	0.7	0.0	2.9	4.0	-18%	4%	0%	16%	20%
30yr 105-125 LTV 5.5	72	27.3	14.8	7.3	7.6	7.0	6.6	54%	33%	35%	31%	30%
2010	50	33.5	19.1	10.9	7.5	5.9	3.7	57%	36%	29%	26%	18%

Source: Bloomberg

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FNMA Prepayment Speed Comparison

September 2018

FNMA 125+ LTV vs FNMA Generic

	HLTV Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
30yr 125+ LTV 3	2,602	9.8	3.1	2.4	2.2	2.6	2.4	32%	22%	21%	24%	24%
2013	1,492	8.8	1.5	1.1	0.8	1.3	1.0	17%	10%	8%	12%	10%
2012	1,040	11.9	5.1	3.2	3.3	3.2	2.8	43%	27%	28%	27%	25%
30yr 125+ LTV 3.5	14,154	10.7	3.1	3.5	3.6	3.6	2.6	29%	26%	29%	28%	21%
2017	29	5.5	0.3	-5.9	-0.3	0.3	-1.5	5%	-2970%	-5%	5%	-39%
2016	140	10.1	1.4	-9.1	-5.0	-5.3	-4.3	14%	-406%	-95%	-99%	-73%
2015	196	8.6	-0.7	0.1	1.8	-1.2	-2.5	-9%	1%	14%	-12%	-27%
2014	60	6.3	-3.1	-11.9	-8.9	-7.0	-6.5	-49%	-3823%	-371%	-146%	-113%
2013	5,282	10.2	1.5	0.8	1.4	1.2	0.6	15%	7%	12%	10%	5%
2012	8,443	11.2	3.1	3.3	3.3	3.1	2.2	28%	23%	25%	23%	18%
30yr 125+ LTV 4	8,040	11.7	3.2	3.0	3.3	3.2	1.6	27%	22%	25%	23%	12%
2017	93	7.8	0.1	-7.8	-2.7	-0.9	-3.3	2%	-502%	-46%	-13%	-67%
2016	94	5.4	-6.1	-5.2	-7.8	-5.6	-6.4	-112%	-63%	-155%	-74%	-92%
2015	276	10.8	-1.6	-5.1	-3.3	-3.6	-5.7	-15%	-50%	-30%	-32%	-58%
2014	460	8.0	-3.3	-4.9	-2.8	-2.2	-4.2	-42%	-50%	-26%	-19%	-40%
2013	1,902	12.3	1.1	-1.3	0.1	0.0	-1.8	9%	-11%	0%	0%	-15%
2012	5,202	12.1	1.8	1.8	2.0	2.1	1.4	15%	12%	14%	15%	10%
30yr 125+ LTV 4.5	1,954	13.1	3.5	3.7	3.7	2.7	-0.1	27%	23%	25%	19%	-1%
2017	13	2.0	-9.0	0.5	-6.9	-8.2	-7.5	-440%	4%	-123%	-190%	-157%
2015	23	27.0	14.7	-5.3	-1.3	1.5	-1.6	54%	-53%	-10%	9%	-11%
2014	539	12.6	-0.8	-3.5	-3.0	-4.1	-5.7	-6%	-26%	-24%	-34%	-53%
2013	889	12.1	-1.2	-0.2	-0.6	-0.9	-3.3	-10%	-1%	-4%	-6%	-26%
2012	483	14.9	2.8	4.9	4.2	3.9	2.0	19%	25%	23%	22%	12%
30yr 125+ LTV 5	100	11.7	0.4	4.4	1.6	-0.4	-2.3	3%	24%	11%	-3%	-17%
2014	48	11.2	-1.8	-0.4	0.9	-0.1	-4.0	-16%	-2%	5%	-1%	-30%
2013	51	12.4	-1.3	1.5	-3.9	-6.4	-4.8	-10%	8%	-31%	-57%	-38%

Source: Bloomberg

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FNMA Prepayment Speed Comparison

September 2018

FNMA Relo vs FNMA Generic

	Relo Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
15yr RELO 2	39	13.4	7.2	8.1	3.4	9.2	7.6	54%	49%	31%	53%	50%
2015	17	17.8	12.4	7.9	4.0	8.6	6.3	70%	48%	31%	48%	43%
15yr RELO 2.5	220	13.7	5.8	10.9	9.2	8.6	6.1	43%	53%	50%	48%	41%
2017	32	3.3	-2.4	-3.1	-0.7	4.4	6.4	-73%	-84%	-13%	42%	54%
2015	34	13.6	5.2	13.3	13.3	10.4	7.6	38%	57%	58%	51%	45%
2014	86	15.5	7.3	10.8	6.7	6.2	3.9	47%	48%	38%	36%	27%
2012	27	1.6	-6.8	14.0	7.6	7.3	3.9	-421%	57%	43%	41%	28%
2011	22	29.5	20.8	5.7	17.8	14.4	7.8	71%	31%	64%	56%	41%
30yr RELO 2.5	259	12.2	7.2	10.6	6.4	8.2	7.2	59%	61%	50%	55%	55%
2016	77	3.1	-1.0	3.1	2.0	4.8	4.4	-31%	36%	28%	45%	49%
2013	129	17.9	12.0	9.0	6.1	9.3	7.7	67%	53%	45%	55%	52%
2012	50	10.9	5.0	8.4	6.7	7.2	6.6	46%	51%	48%	49%	49%
30yr RELO 3	4,366	10.9	4.2	4.6	4.5	4.5	3.5	39%	35%	36%	35%	31%
2018	427	6.1	4.9	0.7	1.8	1.1	-	81%	24%	45%	32%	-
2017	1,483	7.3	4.1	1.6	2.8	2.8	1.8	55%	27%	42%	43%	36%
2016	602	13.4	6.9	9.2	8.4	8.2	5.3	51%	53%	52%	51%	43%
2015	946	16.1	9.3	11.9	10.6	9.6	7.7	58%	57%	56%	52%	48%
2014	321	10.7	4.1	6.6	6.0	6.9	6.7	38%	41%	40%	42%	42%
2013	302	10.8	3.4	5.6	5.2	6.6	5.7	32%	38%	37%	42%	40%
2012	250	14.5	7.7	9.1	8.0	8.4	5.2	53%	51%	49%	49%	39%
2011	35	10.6	1.6	21.7	7.6	10.2	4.2	15%	83%	52%	55%	33%
30yr RELO 3.5	1,661	12.8	5.2	6.9	6.3	6.7	6.0	40%	41%	41%	42%	39%
2018	284	8.6	4.9	-0.8	0.7	2.0	-	57%	-25%	14%	34%	-
2017	215	10.8	5.6	10.6	6.7	4.8	2.6	52%	63%	54%	46%	33%
2014	584	15.4	6.0	9.8	9.3	9.2	7.4	39%	45%	45%	44%	38%
2013	189	15.5	6.8	5.4	5.5	6.4	5.7	44%	32%	34%	37%	34%
2012	109	4.5	-3.6	5.2	4.8	5.2	4.3	-78%	32%	33%	33%	29%
2011	140	16.9	9.1	1.3	3.2	4.0	4.2	54%	11%	25%	29%	30%
2010	124	12.3	4.0	10.7	5.6	4.9	4.6	32%	51%	38%	33%	31%
30yr RELO 4	429	15.0	6.5	8.1	7.9	7.8	6.7	43%	43%	44%	42%	37%
2014	96	29.6	18.3	6.2	13.0	9.3	10.8	62%	30%	49%	40%	42%
2011	167	12.4	3.2	5.2	6.0	6.4	4.3	26%	29%	35%	35%	26%
2010	136	9.4	0.1	9.6	3.1	4.2	3.3	1%	46%	23%	27%	22%
30yr RELO 4.5	86	21.2	11.6	2.4	10.0	7.5	6.5	55%	17%	47%	38%	33%
2011	35	27.8	17.2	-3.2	10.8	10.2	7.6	62%	-30%	46%	44%	35%

Source: Bloomberg

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FGLMC Prepayment Speed Comparison

September 2018

FGLMC Jumbos vs FGLMC Generic

	Jumbo Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
15yr Jumbo 2	33	1.5	-5.7	6.9	1.6	0.3	2.6	-371%	45%	16%	4%	25%
2013	22	2.0	-5.9	-7.5	-1.7	-3.1	3.0	-298%	-509%	-24%	-52%	25%
15yr Jumbo 2.5	422	4.6	-3.5	-6.9	-3.6	-1.9	-1.7	-76%	-224%	-64%	-25%	-24%
2017	11	2.2	-5.3	-7.4	-7.1	-7.3	-6.8	-244%	-449%	-487%	-661%	-988%
2016	32	1.3	-6.6	-10.3	-8.6	-6.4	-7.2	-490%	-1802%	-857%	-191%	-349%
2015	66	5.9	-3.4	-2.3	0.1	-0.6	0.0	-58%	-27%	1%	-6%	0%
2014	24	19.0	10.6	-6.6	-1.3	-0.6	-1.9	56%	-173%	-16%	-7%	-24%
2013	128	1.6	-7.6	-8.4	-7.5	-6.0	-5.6	-485%	-323%	-263%	-128%	-120%
2012	161	4.8	-4.6	-9.6	-3.9	-0.9	-1.2	-94%	-606%	-61%	-10%	-14%
15yr Jumbo 3	81	4.5	-5.8	2.9	-2.0	-2.0	-1.5	-129%	19%	-22%	-22%	-16%
2015	12	0.6	-9.7	20.2	0.9	-1.8	-5.8	-1667%	62%	7%	-17%	-101%
2014	14	8.1	-2.1	-12.0	2.3	-4.5	1.8	-26%	-1911%	17%	-60%	13%
2012	28	1.8	-9.2	11.7	-0.7	-0.7	-2.5	-510%	48%	-6%	-6%	-26%
2011	18	10.6	2.3	-6.0	-3.9	1.3	1.1	22%	-235%	-80%	13%	13%
30yr Jumbo 2.5	1,065	2.2	-6.8	-4.3	-5.2	-4.8	-4.3	-311%	-89%	-128%	-110%	-92%
2013	111	0.5	-9.5	-4.1	-7.8	-7.3	-6.6	-2070%	-74%	-356%	-323%	-282%
2012	927	2.4	-4.8	-2.2	-2.9	-2.0	-1.2	-197%	-45%	-70%	-42%	-24%
30yr Jumbo 3	12,676	5.3	-3.8	-3.3	-3.4	-2.5	-1.6	-71%	-59%	-60%	-42%	-27%
2017	1,222	5.4	-5.4	-4.8	-6.1	-5.9	-5.6	-100%	-91%	-140%	-145%	-151%
2016	4,573	5.1	-5.9	-6.2	-6.1	-5.9	-5.0	-116%	-115%	-113%	-107%	-90%
2015	1,883	5.8	-4.7	-3.6	-4.5	-3.7	-3.1	-80%	-54%	-73%	-55%	-46%
2014	129	13.7	2.6	-4.0	-1.0	2.3	1.5	19%	-60%	-9%	17%	12%
2013	2,178	6.4	-4.9	-3.3	-4.2	-3.7	-3.7	-76%	-47%	-64%	-56%	-58%
2012	2,672	4.0	-8.3	-7.3	-6.7	-5.3	-4.7	-205%	-173%	-131%	-90%	-76%
30yr Jumbo 3.5	12,891	6.9	-5.6	-3.7	-4.2	-3.5	-1.6	-82%	-43%	-51%	-41%	-15%
2018	300	1.1	-11.6	-8.5	-7.8	-8.5	-	-1084%	-273%	-173%	-233%	-
2017	3,909	5.9	-6.8	-5.5	-6.1	-5.9	-3.3	-116%	-80%	-92%	-89%	-38%
2016	2,713	7.4	0.2	2.5	1.5	3.2	6.6	3%	27%	18%	34%	55%
2015	2,268	9.5	4.4	3.7	3.2	4.5	6.7	47%	32%	29%	42%	56%
2014	771	7.3	-1.8	3.8	2.6	2.1	3.0	-24%	34%	25%	22%	30%
2013	730	6.5	-2.2	-0.8	-0.9	1.2	2.0	-34%	-10%	-11%	13%	21%
2012	1,943	6.5	1.7	4.3	3.6	4.7	5.9	25%	53%	45%	54%	64%
2011	252	1.6	-7.1	-6.3	-4.3	-2.2	0.2	-461%	-271%	-99%	-38%	3%
30yr Jumbo 4	6,370	8.8	-0.1	1.1	0.4	1.4	5.7	-2%	11%	4%	14%	41%
2018	2,268	8.0	0.8	-2.6	-2.7	-4.1	-	10%	-42%	-44%	-85%	-
2017	1,092	10.4	1.0	0.3	0.6	0.9	6.8	10%	3%	6%	9%	44%
2016	398	10.9	1.8	7.4	2.8	4.3	7.6	17%	45%	23%	33%	48%
2015	648	13.6	3.7	3.0	4.8	5.2	7.8	27%	24%	33%	36%	45%
2014	812	6.3	1.8	11.8	8.6	9.6	-	29%	75%	67%	72%	-
2013	314	10.8	4.4	4.1	4.7	6.0	7.1	41%	41%	43%	52%	57%
2012	174	3.2	-9.2	-1.8	-4.1	0.7	1.2	-289%	-19%	-53%	6%	11%
2011	480	4.6	-7.6	-1.7	-2.5	-0.3	0.1	-166%	-17%	-26%	-2%	1%
2010	184	8.1	-4.0	2.8	-3.1	-2.0	2.1	-49%	19%	-34%	-21%	15%
30yr Jumbo 4.5	441	11.3	-0.2	3.6	2.0	2.0	5.9	-2%	24%	15%	15%	35%
2018	26	0.0	-10.5	29.0	4.6	-2.5	-	105400%	74%	30%	-31%	-
2017	23	0.1	-9.0	-10.6	3.9	5.6	17.7	-18060%	-13263%	28%	36%	64%
2015	44	24.2	13.6	-10.4	1.8	-0.1	1.4	56%	-10380%	14%	-1%	11%
2014	76	7.2	2.7	14.8	12.7	11.8	-	37%	78%	74%	77%	-
2013	43	12.2	2.5	22.2	12.3	13.3	18.7	20%	71%	57%	61%	69%
2011	176	12.7	-1.2	-4.6	-5.6	-2.7	-1.0	-9%	-48%	-63%	-25%	-8%
2010	44	0.1	-15.5	-14.4	-5.0	-7.8	-1.3	-17189%	-13064%	-49%	-110%	-10%

Source: Bloomberg

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FGLMC Prepayment Speed Comparison

September 2018

FGLMC 105-125 LTV vs FGLMC Generic

	HLTV Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
15yr 105-125 LTV 2.5	575	9.8	1.7	1.6	2.3	1.9	1.3	18%	14%	20%	17%	13%
2013	262	8.1	-0.3	-1.2	0.6	0.8	0.3	-3%	-13%	6%	7%	3%
2012	288	11.6	2.5	2.5	2.5	1.5	0.6	21%	19%	20%	12%	5%
15yr 105-125 LTV 3	837	10.5	1.1	0.7	0.9	1.5	1.2	11%	6%	8%	12%	11%
2017	16	0.5	-7.0	-1.3	-5.2	-3.4	-2.5	-1452%	-17%	-178%	-75%	-57%
2016	47	12.2	2.4	2.1	-0.9	-1.1	-3.1	20%	15%	-9%	-11%	-46%
2015	73	5.9	-4.5	-6.3	-6.2	-3.4	-4.1	-76%	-106%	-119%	-44%	-63%
2014	60	13.9	3.7	-7.5	-5.0	-2.6	-2.2	26%	-151%	-74%	-28%	-23%
2013	252	10.3	-0.3	1.1	0.7	0.1	-0.3	-3%	8%	6%	1%	-3%
2012	375	11.0	0.8	0.1	1.2	1.8	1.5	8%	1%	10%	13%	11%
15yr 105-125 LTV 3.5	436	13.9	3.5	2.8	2.2	1.9	1.0	25%	19%	16%	15%	8%
2017	12	39.7	30.2	-10.9	5.5	0.6	-2.0	76%	-4542%	35%	6%	-30%
2016	11	16.4	5.9	-1.1	-2.2	-6.4	-4.5	36%	-11%	-24%	-117%	-70%
2015	33	11.3	0.9	5.1	0.2	-0.8	-2.4	8%	27%	2%	-7%	-24%
2014	100	12.6	1.0	-2.1	-1.3	0.7	-0.9	8%	-17%	-11%	5%	-8%
2013	144	11.6	0.4	5.2	1.9	0.7	-0.1	3%	30%	13%	5%	-1%
2012	97	12.1	-1.1	-1.9	-0.3	-1.0	1.0	-9%	-15%	-2%	-8%	7%
2011	32	25.5	13.0	3.4	3.6	4.4	3.4	51%	19%	22%	25%	21%
15yr 105-125 LTV 4	87	10.0	-1.8	-0.7	0.3	-1.2	0.4	-18%	-5%	2%	-9%	3%
2014	13	21.3	7.8	-2.8	-0.8	-4.3	0.0	36%	-24%	-6%	-43%	0%
2013	20	7.2	-8.2	2.0	-5.2	-4.1	-3.0	-115%	10%	-42%	-37%	-27%
2011	34	10.6	-1.1	-0.9	1.0	-0.6	2.8	-10%	-7%	7%	-5%	17%
20yr 105-125 LTV 3	485	7.3	0.3	1.0	1.5	1.2	1.2	4%	10%	16%	13%	14%
2013	202	8.9	1.6	1.9	2.4	1.3	1.4	18%	18%	23%	13%	14%
2012	244	6.4	-0.3	-2.8	-0.4	0.0	0.1	-5%	-43%	-5%	0%	1%
20yr 105-125 LTV 3.5	972	6.5	-1.3	6.0	2.6	3.4	1.9	-21%	38%	23%	27%	17%
2017	20	0.2	-6.3	4.0	-2.7	-3.1	-3.6	-3000%	32%	-59%	-85%	-142%
2016	25	14.5	5.3	4.1	-0.3	-3.7	-4.0	36%	29%	-3%	-55%	-65%
2015	53	3.1	-5.9	9.8	1.8	0.6	-3.7	-190%	48%	15%	6%	-50%
2014	50	4.8	-4.8	-4.5	-1.6	-0.6	-1.9	-100%	-72%	-18%	-6%	-21%
2013	297	6.4	-1.9	2.7	0.9	1.7	0.0	-29%	19%	8%	14%	0%
2012	523	6.7	-1.6	6.2	2.6	3.4	2.6	-23%	36%	21%	25%	20%
20yr 105-125 LTV 4	359	8.3	-0.5	0.5	0.4	2.8	3.1	-6%	4%	4%	22%	23%
2015	23	0.4	-9.2	-3.0	-8.9	-5.0	-2.3	-2200%	-23%	-191%	-69%	-25%
2014	68	8.9	-2.1	-9.8	-3.8	0.9	-0.6	-23%	-230%	-45%	7%	-5%
2013	97	4.7	-6.0	3.4	-2.3	0.6	2.2	-129%	23%	-25%	5%	16%
2012	122	12.1	0.5	-4.6	-0.5	2.3	3.7	4%	-38%	-4%	15%	23%
2011	27	6.0	-4.2	2.7	-0.3	3.2	3.3	-70%	17%	-2%	22%	22%
20yr 105-125 LTV 4.5	99	12.9	3.5	0.8	2.2	1.9	3.0	27%	6%	16%	14%	19%
2013	26	25.6	15.0	-19.8	-3.7	-1.6	-1.7	59%	-506%	-33%	-15%	-12%
2011	46	4.5	-4.1	4.6	0.3	3.2	4.4	-91%	26%	3%	21%	26%
30yr 105-125 LTV 3	1,007	7.9	-0.9	2.7	1.1	1.3	1.6	-11%	24%	11%	14%	18%
2013	523	7.0	-2.3	0.9	-0.1	0.2	0.5	-33%	9%	-1%	2%	6%
2012	442	9.0	0.0	2.9	0.9	1.1	1.4	0%	24%	8%	12%	14%
30yr 105-125 LTV 3.5	6,761	10.4	0.4	2.5	2.2	2.5	1.7	4%	21%	18%	21%	15%
2017	34	6.4	0.0	0.0	0.0	-2.3	-1.4	-1%	-1%	1%	-67%	-35%
2016	168	6.0	-6.4	-4.7	-4.3	-5.0	-5.9	-106%	-72%	-56%	-85%	-132%
2015	174	8.7	-3.5	5.4	-1.2	-2.6	-3.5	-40%	32%	-11%	-29%	-44%
2014	33	0.5	-11.7	-0.8	-5.5	0.5	-1.3	-2479%	-7%	-81%	4%	-12%
2013	2,831	10.7	-0.8	1.2	0.3	0.8	0.2	-8%	10%	3%	7%	2%
2012	3,507	10.5	0.0	1.3	1.8	2.0	1.4	0%	11%	14%	16%	12%
30yr 105-125 LTV 4	7,427	11.7	1.1	3.8	2.3	2.5	1.2	9%	27%	17%	19%	10%
2017	154	6.4	-3.3	2.2	-2.6	-2.2	-3.4	-51%	20%	-38%	-34%	-67%
2016	217	13.3	-0.6	3.7	-1.0	-2.7	-4.2	-4%	21%	-7%	-25%	-46%
2015	422	11.4	-4.1	-4.1	-4.1	-4.1	-5.6	-36%	-40%	-38%	-38%	-61%
2014	451	11.4	-3.0	-2.8	-2.8	-2.5	-4.0	-26%	-24%	-23%	-22%	-37%
2013	1,924	13.1	-0.2	1.2	0.3	0.8	-0.5	-2%	8%	2%	6%	-4%
2012	3,947	11.2	-1.4	2.5	0.4	0.9	0.7	-12%	17%	3%	7%	5%
2011	246	11.8	-0.8	-0.8	1.7	0.4	2.5	-7%	-7%	12%	3%	17%
2010	54	11.8	-0.2	5.2	2.4	1.2	1.8	-2%	33%	18%	10%	13%
30yr 105-125 LTV 4.5	3,594	12.2	0.1	2.6	2.1	2.3	1.1	1%	19%	15%	16%	8%
2017	61	15.5	1.4	-0.9	-1.9	-4.7	-7.0	9%	-8%	-17%	-64%	-143%
2016	14	11.7	-2.8	-16.6	-12.1	-11.2	-9.5	-24%	-6156%	-289%	-259%	-157%
2015	106	8.1	-8.5	-6.8	-8.1	-4.7	-5.6	-106%	-75%	-90%	-41%	-56%
2014	689	13.1	-3.3	-2.8	-2.9	-2.5	-3.9	-25%	-22%	-22%	-18%	-31%
2013	781	10.8	-4.8	0.6	-1.1	-1.7	-1.7	-45%	4%	-8%	-13%	-13%
2012	351	16.5	1.7	2.8	1.9	3.9	1.3	10%	15%	10%	21%	8%
2011	1,047	11.0	-2.6	1.0	0.2	1.3	1.1	-24%	7%	2%	9%	7%
2010	529	13.5	-0.3	2.2	1.6	2.1	3.3	-2%	14%	10%	14%	19%
30yr 105-125 LTV 5	1,541	15.6	0.8	5.2	3.2	3.3	3.2	5%	27%	18%	18%	17%
2014	31	10.9	-10.9	-4.7	-6.5	-4.6	-0.3	-100%	-93%	-57%	-41%	-2%
2013	27	24.4	11.7	-11.5	1.1	3.5	-0.2	48%	-3479%	8%	21%	-1%
2011	1,000	16.6	1.1	4.7	2.9	2.4	2.0	7%	24%	16%	13%	11%
2010	434	13.6	-3.2	7.9	2.5	3.7	4.1	-23%	35%	14%	19%	20%
2009	36	12.4	-3.1	-9.5	-4.1	0.2	1.9	-25%	-176%	-35%	1%	11%
30yr 105-125 LTV 5.5	139	10.4	-6.0	12.7	1.7	3.5	4.6	-58%	47%	10%	18%	22%
2011	34	12.7	-11.6	7.2	-3.7	-4.6	0.7	-91%	26%	-19%	-28%	4%
2010	71	12.3	-8.7	16.1	-1.0	4.5	3.6	-71%	50%	-6%	22%	17%
2009	31	0.2	-17.2	-1.5	-2.6	1.8	5.5	-8205%	-10%	-18%	9%	25%

Source: Bloomberg

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FGLMC Prepayment Speed Comparison

September 2018

FGLMC Relo vs FGLMC Generic

	Relo Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
30yr Relo 3	279	8.7	-0.1	0.1	5.4	5.4	5.5	-1%	1%	38%	39%	42%
2017	38	8.3	3.4	-3.7	-1.5	-1.6	1.6	41%	-2159%	-50%	-69%	33%
2015	192	10.7	1.8	2.2	8.9	8.1	7.3	17%	19%	49%	48%	47%
2012	27	0.4	-8.7	-0.6	-1.9	-0.2	1.9	-2110%	-7%	-26%	-2%	19%
30yr Relo 3.5	32	17.6	7.7	6.1	10.0	10.9	9.5	44%	40%	50%	54%	50%
2014	24	23.0	10.8	8.6	13.4	9.3	8.4	47%	42%	52%	44%	41%

Source: Bloomberg

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GNMA Prepayment Speed Comparison

September 2018

GNMA2 Jumbo vs GNMA2 Generic

	Jumbo Data		CPR Differences vs Generic					% CPR Differences vs Generic				
	Cur Bal (MM)	CPR (Sep)	Sep	Aug	3mo	6mo	12mo	Sep	Aug	3mo	6mo	12mo
GNMA 2 Jumbo 2.5	373	4.6	-4.0	3.9	2.9	2.1	0.9	-89%	26%	23%	18%	9%
2017	31	15.6	12.3	-7.8	0.0	-2.0	0.3	79%	-1305%	0%	-59%	7%
2016	192	3.1	-5.5	8.2	3.4	0.8	0.3	-177%	44%	26%	8%	4%
2015	26	1.7	-9.0	7.7	4.1	9.4	8.9	-531%	44%	28%	49%	48%
2013	41	0.5	-8.4	-2.2	6.6	1.3	-2.0	-1864%	-23%	36%	10%	-23%
2012	77	6.7	-1.8	-7.8	-1.0	2.9	-0.6	-27%	-114%	-10%	19%	-6%
GNMA 2 Jumbo 3	22,379	8.3	-1.8	-1.4	-1.6	-1.2	-0.4	-22%	-13%	-16%	-11%	-4%
2018	348	4.9	2.0	-0.2	2.0	2.6	-	41%	-124%	64%	66%	-
2017	2,859	7.4	0.7	-0.2	-0.1	-0.3	0.4	9%	-3%	-2%	-4%	7%
2016	13,691	8.7	-1.6	0.0	-0.9	-0.4	0.5	-18%	0%	-9%	-4%	5%
2015	2,811	8.9	-2.6	-2.8	-1.8	-0.9	0.1	-29%	-24%	-16%	-7%	1%
2014	331	9.4	-2.5	-14.3	-7.4	-5.6	-5.5	-27%	-4194%	-113%	-61%	-62%
2013	1,195	6.7	-4.1	-3.3	-3.1	-2.5	-2.1	-62%	-33%	-32%	-23%	-20%
2012	1,132	7.8	-2.9	-6.1	-3.1	-3.7	-2.4	-37%	-79%	-33%	-40%	-24%
GNMA 2 Jumbo 3.5	24,381	10.0	-0.5	-0.5	-0.7	0.0	1.8	-5%	-4%	-6%	0%	13%
2018	2,751	4.3	-0.5	-1.0	-1.0	-0.4	-	-11%	-24%	-26%	-13%	-
2017	9,608	9.7	2.1	1.7	1.7	2.0	3.8	22%	16%	17%	22%	35%
2016	4,159	12.9	0.9	1.0	0.7	1.6	3.3	7%	7%	5%	11%	20%
2015	4,534	11.5	-1.7	0.8	-0.4	1.0	3.2	-15%	5%	-3%	6%	17%
2014	1,113	14.2	0.8	-4.4	-1.8	-0.6	0.8	6%	-37%	-13%	-4%	5%
2013	600	7.6	-4.3	-2.8	-3.3	-1.8	-1.0	-57%	-23%	-32%	-15%	-7%
2012	1,460	7.7	-3.9	0.0	-1.7	-1.2	-0.6	-50%	0%	-14%	-9%	-4%
2011	146	6.8	-5.2	-8.2	-5.9	-3.1	-2.6	-76%	-119%	-73%	-28%	-22%
GNMA 2 Jumbo 4	8,356	10.2	0.0	0.4	0.0	1.8	6.1	0%	3%	0%	13%	29%
2018	3,830	3.0	0.3	0.3	0.0	0.1	-	10%	9%	-1%	3%	-
2017	2,652	17.1	6.7	8.3	7.4	8.5	11.7	39%	42%	41%	45%	48%
2016	413	15.3	1.7	-5.2	-0.7	3.9	5.1	11%	-51%	-5%	22%	22%
2015	511	17.2	2.0	4.3	1.2	3.5	6.5	12%	19%	7%	18%	27%
2014	264	14.0	-0.5	5.8	3.0	3.9	5.9	-4%	25%	16%	19%	25%
2013	88	11.4	-3.5	-6.7	-3.2	-3.0	0.7	-30%	-65%	-24%	-21%	4%
2012	104	8.7	-3.9	3.1	-1.8	-1.4	1.7	-45%	18%	-15%	-11%	10%
2011	177	13.6	0.7	6.1	0.4	0.3	-0.4	5%	28%	3%	2%	-3%
2010	303	9.6	-2.1	-4.7	-3.2	-1.3	-0.3	-22%	-42%	-30%	-10%	-2%
GNMA 2 Jumbo 4.5	1,337	9.8	0.3	2.2	2.4	4.0	7.4	3%	16%	18%	24%	31%
2018	824	2.5	0.4	2.8	1.7	1.2	-	14%	59%	45%	45%	-
2017	155	30.0	14.4	20.3	17.9	17.5	20.6	48%	56%	54%	55%	60%
2016	34	30.3	15.1	3.6	14.3	10.5	6.9	50%	17%	47%	38%	18%
2015	15	0.1	-13.6	-13.9	-14.0	2.1	10.5	-22667%	-6960%	-13195%	13%	39%
2014	39	0.1	-14.8	17.1	0.4	10.5	5.8	-29600%	50%	2%	38%	23%
2013	21	0.1	-14.8	-16.2	-1.8	-5.7	-3.5	-29640%	-27017%	-12%	-53%	-24%
2011	88	24.1	10.7	-9.4	-2.5	-2.6	2.4	44%	-169%	-20%	-21%	13%
2010	135	16.5	3.7	2.3	3.7	1.6	3.3	23%	12%	20%	10%	17%
GNMA 2 Jumbo 5	174	10.1	-0.4	-3.6	3.9	6.3	8.5	-4%	-37%	24%	31%	34%
2010	40	14.9	1.2	-6.7	-0.3	7.8	4.8	8%	-61%	-2%	32%	22%
2009	36	24.3	10.6	-2.8	6.5	-1.7	2.2	44%	-21%	30%	-12%	12%

Source: Bloomberg

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