



Santander US Capital Markets LLC

Single Family Fixed Rate Prepayment Report

March 2023 (February Speeds)

Agency MBS Strategy

Brian R. Landy, CFA

brian.landy@santander.us

646-776-7795

www.santandercib.com/sancap

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Overview

Product	Agency	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
Fixed 30	FNMA	2,797,761	3.701	315	38	228	4.1	3.7	4.5	4.1	4.9	7.5	11.0	-17.8
	FHLMC	2,310,610	3.642	320	34	241	3.9	3.5	4.3	3.9	4.7	7.1	10.9	-18.1
	GNMA I	59,112	4.665	214	135	89	5.9	5.7	6.7	6.1	7.3	11.0	3.5	-15.4
	GNMA II	1,994,994	3.575	320	35	207	5.1	4.6	5.5	5.1	6.3	10.2	13.2	-18.1
Fixed 20	FNMA	162,655	3.232	194	42	167	3.9	3.7	4.4	4.0	4.7	6.6	3.9	-16.0
	FHLMC	126,689	3.196	199	37	177	3.6	3.5	4.1	3.7	4.4	6.3	4.4	-14.4
Fixed 15	FNMA	446,694	2.814	136	39	138	5.1	5.1	5.6	5.3	5.9	7.8	-0.3	-9.3
	FHLMC	350,273	2.823	139	36	145	5.0	5.0	5.5	5.2	5.8	7.8	1.3	-10.2
	GNMA I	1,405	3.753	46	133	30	13.5	14.6	13.6	13.9	14.0	16.1	-7.9	7.2
	GNMA II	20,112	3.066	122	52	90	8.4	8.2	9.0	8.5	9.5	12.1	1.5	-8.4
Fixed 10	FNMA	25,584	2.590	88	27	107	6.7	7.1	7.7	7.1	7.6	9.2	-5.8	-8.3
	FHLMC	11,003	2.537	93	23	122	5.9	5.7	6.7	6.1	6.5	8.1	2.9	-15.3

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 30, by Coupon

Agency	Coupon	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
FNMA	≤ 1.5	82,040	2.504	330	25	340	2.2	1.8	2.5	2.2	2.7	3.9	21.3	-26.6
	2.0	816,239	2.876	332	23	301	2.8	2.5	3.1	2.8	3.4	4.9	13.5	-20.2
	2.5	653,800	3.301	332	23	264	3.6	3.1	3.9	3.5	4.3	6.4	17.7	-22.0
	3.0	391,721	3.707	297	54	207	4.4	4.2	5.1	4.6	5.5	8.6	7.3	-18.7
	3.5	290,085	4.122	285	66	180	5.1	4.9	5.9	5.3	6.4	10.4	5.3	-18.0
	4.0	227,960	4.641	289	63	170	5.7	5.4	6.2	5.8	7.0	11.9	4.8	-13.0
	4.5	142,607	5.188	302	51	177	5.5	5.2	6.3	5.7	6.8	11.7	5.4	-17.8
	5.0	87,775	5.741	311	44	184	5.3	5.1	6.0	5.5	6.4	10.2	4.8	-15.5
	5.5	57,543	6.250	304	52	165	6.6	6.0	6.8	6.4	7.1	9.8	11.0	-12.2
≥ 6.0	47,991	6.991	293	63	128	9.7	8.0	8.0	8.6	8.9	11.5	22.4	0.4	
FHLMC	≤ 1.5	117,207	2.530	330	25	338	2.3	2.0	2.6	2.3	2.8	4.0	16.9	-23.4
	2.0	747,434	2.897	333	22	309	2.8	2.5	3.0	2.8	3.4	4.9	14.2	-18.2
	2.5	520,485	3.294	333	22	265	3.5	3.1	3.9	3.5	4.3	6.3	14.4	-21.7
	3.0	292,398	3.730	302	50	209	4.3	4.0	5.1	4.5	5.5	8.6	8.9	-22.4
	3.5	203,364	4.149	289	62	184	5.2	4.9	5.9	5.3	6.4	10.6	5.3	-17.6
	4.0	161,644	4.678	299	53	184	5.3	5.1	6.0	5.5	6.6	11.4	3.0	-14.4
	4.5	110,475	5.208	311	43	191	5.3	4.9	6.1	5.4	6.6	11.1	6.9	-19.4
	5.0	75,295	5.744	320	36	198	5.2	5.1	6.2	5.5	6.3	9.6	1.4	-17.7
	5.5	45,537	6.243	317	40	182	6.5	5.8	6.7	6.4	6.9	9.4	12.3	-13.1
≥ 6.0	36,771	6.953	306	50	137	9.5	8.0	7.3	8.4	8.8	11.4	19.5	10.8	
GNMA I	≤ 1.5	46	2.267	323	34	125	0.2	0.9	0.1	0.4	3.7	4.1	-79.8	550.2
	2.0	393	2.691	312	43	120	3.2	2.2	2.6	2.7	3.7	4.5	42.1	-12.9
	2.5	1,956	3.077	282	70	135	3.3	4.6	3.7	3.9	4.5	6.5	-28.6	24.4
	3.0	10,671	3.517	247	102	122	5.2	4.8	6.4	5.5	6.5	9.7	7.1	-25.3
	3.5	9,854	4.037	234	115	108	6.2	5.2	6.1	5.8	7.2	11.0	19.3	-15.4
	4.0	10,575	4.527	225	124	104	5.8	5.9	6.7	6.1	7.4	11.6	-1.7	-11.1
	4.5	10,373	5.009	201	148	96	6.2	5.5	6.9	6.2	7.5	12.1	12.7	-21.2
	5.0	7,428	5.512	186	163	76	5.7	6.1	7.4	6.4	7.7	11.7	-6.7	-17.2
	5.5	3,468	6.012	156	193	60	6.6	7.5	7.9	7.3	8.3	11.7	-11.9	-4.9
≥ 6.0	4,348	6.830	144	206	42	7.6	7.6	8.1	7.7	8.5	11.0	0.9	-6.6	
GNMA II	≤ 1.5	5,751	1.980	333	21	303	2.8	3.2	3.7	3.3	4.3	6.6	-12.7	-14.0
	2.0	393,122	2.418	332	21	286	4.7	4.0	4.9	4.5	5.7	8.5	18.3	-18.6
	2.5	490,659	2.936	332	23	239	5.2	4.5	5.5	5.1	6.3	9.2	15.8	-17.9
	3.0	360,696	3.433	310	44	192	5.9	5.2	6.2	5.8	7.1	11.1	14.3	-17.3
	3.5	273,787	3.908	293	61	160	6.1	5.5	6.9	6.2	7.6	12.6	11.3	-20.1
	4.0	175,712	4.454	306	49	165	5.4	4.9	6.1	5.4	6.7	12.2	11.1	-20.0
	4.5	122,364	4.979	319	37	186	4.5	4.2	4.8	4.5	5.3	10.6	8.5	-13.8
	5.0	83,250	5.510	330	28	199	3.9	3.6	3.8	3.8	4.3	8.6	6.6	-4.2
	5.5	47,431	6.015	339	19	214	2.7	2.5	2.4	2.5	2.9	5.7	8.8	2.3
≥ 6.0	42,223	6.759	336	22	187	2.3	2.4	2.4	2.3	3.1	5.7	-4.5	0.5	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 30, by Issue Year

Agency	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
FNMA	2023	40,212	6.427	358	1	321	6.4	3.8		5.5	5.5	5.5	72.6	
	2022	518,962	4.498	349	9	309	3.7	3.2	3.5	3.4	3.7	3.9	16.3	-8.5
	2021	899,341	3.029	336	20	281	3.0	2.6	3.3	3.0	3.6	5.2	16.2	-20.5
	2020	640,570	3.192	323	30	259	3.7	3.3	4.3	3.8	4.8	7.4	13.4	-23.8
	2019	117,409	4.200	309	43	200	6.1	5.6	6.8	6.1	7.6	13.6	9.3	-18.8
	2018	65,274	4.687	294	57	170	7.1	6.8	8.3	7.4	9.1	16.4	5.1	-19.1
	2017	77,708	4.224	282	68	168	6.1	5.9	7.0	6.4	7.9	13.5	2.8	-16.2
	2016	94,875	3.848	270	79	172	5.2	5.2	6.2	5.5	6.8	11.1	-0.0	-16.8
	2015	57,515	4.127	255	92	157	5.8	5.4	6.6	5.9	7.3	11.8	7.6	-19.2
	2014	31,572	4.538	242	105	133	6.7	6.0	7.5	6.7	7.9	12.7	12.4	-21.1
	2013	84,192	3.853	228	117	144	5.1	5.1	5.9	5.4	6.4	9.7	0.0	-14.8
	2012	73,697	3.905	217	127	139	5.1	5.4	5.9	5.5	6.5	9.6	-5.5	-9.7
	2011	24,322	4.634	204	140	118	6.3	6.3	7.4	6.7	7.7	11.8	-0.9	-14.9
	2010	19,766	4.805	193	151	116	6.6	6.8	7.4	6.9	8.0	12.2	-2.9	-7.9
	2009	19,564	5.093	174	171	96	7.0	7.1	8.3	7.5	8.4	12.1	-0.6	-15.3
	2008	4,766	6.160	167	181	89	7.5	8.2	8.9	8.2	9.3	13.1	-9.0	-7.9
	2007	4,770	6.489	159	189	84	7.0	8.1	8.4	7.8	9.4	13.7	-14.4	-3.3
2006	3,349	6.522	148	201	77	8.3	8.2	8.8	8.4	9.3	13.6	0.8	-6.3	
2005	5,049	5.912	136	212	73	7.7	8.0	9.4	8.4	9.2	12.9	-3.7	-15.2	
≤ 2004	14,848	6.072	110	238	52	8.4	8.2	9.2	8.6	9.3	12.2	1.8	-11.3	
FHLMC	2023	36,462	6.397	358	1	310	5.8	4.2		5.2	5.2	5.2	40.4	
	2022	462,154	4.475	349	9	305	3.6	3.1	3.6	3.4	3.8	4.0	14.3	-12.8
	2021	842,533	3.008	336	20	287	3.0	2.6	3.2	2.9	3.5	5.1	16.2	-19.4
	2020	504,045	3.151	324	30	267	3.7	3.3	4.2	3.7	4.6	7.2	12.1	-21.7
	2019	91,150	4.178	308	44	198	5.9	5.7	6.9	6.2	7.5	13.2	3.5	-18.4
	2018	43,902	4.659	292	58	168	7.0	7.1	8.3	7.5	9.2	16.4	-0.8	-15.7
	2017	56,931	4.199	282	68	173	6.2	5.9	7.0	6.4	7.9	13.5	4.4	-15.6
	2016	66,302	3.876	270	79	178	5.3	4.8	6.3	5.5	6.8	11.4	11.6	-24.6
	2015	42,436	4.093	253	93	158	5.3	5.4	6.6	5.8	7.0	11.7	-2.3	-18.6
	2014	21,800	4.468	241	104	138	6.1	6.3	7.3	6.6	7.8	12.7	-2.7	-14.0
	2013	48,552	3.823	227	118	144	5.0	5.1	6.0	5.4	6.3	9.8	-0.6	-16.4
	2012	36,006	3.927	216	127	135	5.1	5.2	6.2	5.5	6.6	9.9	-2.3	-17.1
	2011	12,147	4.644	203	141	120	6.4	6.4	7.7	6.8	7.7	12.0	0.0	-17.6
	2010	13,169	4.883	193	151	112	6.8	6.4	7.8	7.0	8.0	12.5	5.5	-17.5
	2009	11,452	5.003	181	164	107	7.2	6.8	8.4	7.5	8.3	12.7	6.4	-19.8
	2008	3,176	6.107	168	180	89	7.1	7.9	9.3	8.1	9.3	13.6	-10.4	-15.1
	2007	3,457	6.415	158	190	76	7.8	7.7	9.1	8.2	9.3	13.9	1.6	-16.2
2006	2,492	6.427	147	201	74	7.8	7.6	8.6	8.0	8.7	13.1	2.1	-11.5	
2005	3,908	5.841	136	213	70	7.4	7.6	8.4	7.8	8.7	12.2	-2.6	-9.2	
≤ 2004	8,535	6.098	109	239	48	8.4	8.4	9.0	8.6	9.6	12.6	-0.1	-6.7	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 30, by Issue Year

Agency	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
GNMA I	2023	258	6.663	358	1	204	0.3	0.4		0.3	0.3	0.3	-29.9	
	2022	1,618	4.784	350	8	186	2.0	3.1	1.5	2.2	2.1	1.8	-37.6	106.6
	2021	1,143	3.282	338	20	152	2.8	2.1	1.3	2.1	2.4	2.9	35.5	61.4
	2020	1,545	3.593	323	33	168	4.6	5.6	7.3	5.9	6.1	10.8	-18.0	-24.0
	2019	1,275	4.177	313	43	147	3.9	5.3	7.7	5.7	7.5	12.3	-27.5	-31.7
	2018	781	4.502	297	57	119	5.1	3.9	4.7	4.5	6.3	10.9	31.5	-17.9
	2017	1,266	4.346	287	68	126	5.2	4.7	7.6	5.8	7.8	14.1	10.7	-39.2
	2016	1,213	3.996	272	80	110	5.4	5.0	6.2	5.5	6.6	10.5	8.4	-20.6
	2015	2,213	4.086	257	93	110	6.0	5.0	6.6	5.9	7.3	11.8	21.3	-24.7
	2014	1,022	4.249	244	105	89	6.3	5.4	6.5	6.1	7.7	10.9	17.9	-17.6
	2013	7,256	3.609	228	118	108	5.3	5.3	6.4	5.7	7.0	10.2	0.4	-17.8
	2012	7,026	3.823	219	128	105	5.8	5.3	6.2	5.8	6.9	10.2	10.9	-16.0
	2011	5,807	4.518	208	140	98	6.0	6.0	7.0	6.3	7.4	11.2	0.2	-15.1
	2010	8,415	4.871	197	152	97	6.6	6.1	6.6	6.4	7.6	12.1	8.3	-7.0
	2009	9,679	5.226	185	163	91	6.0	5.6	7.5	6.4	7.7	11.9	7.5	-25.7
	2008	2,002	6.177	173	176	75	6.7	6.9	6.7	6.7	8.4	12.3	-3.5	3.1
	2007	632	6.414	161	188	66	5.3	7.4	7.3	6.7	7.7	10.9	-28.9	1.9
2006	638	6.290	148	201	60	7.6	7.5	8.1	7.7	8.2	11.7	0.2	-6.7	
2005	852	5.838	135	213	54	6.5	7.2	7.4	7.0	8.0	11.1	-9.1	-2.9	
≤ 2004	4,471	6.312	102	247	36	8.3	8.0	8.6	8.3	8.8	11.1	4.4	-6.8	
GNMA II	2023	47,223	6.052	357	2	286	1.2	1.0		1.1	1.1	1.1	27.4	
	2022	461,836	4.309	349	9	277	3.4	2.7	2.8	2.9	3.2	3.2	25.3	-2.2
	2021	640,586	2.807	335	20	249	4.8	4.2	5.0	4.7	5.8	8.7	16.1	-17.3
	2020	355,590	3.032	323	31	225	6.2	5.3	6.6	6.0	7.6	12.3	17.5	-20.4
	2019	93,185	4.072	311	44	177	7.9	7.0	8.6	7.8	9.8	17.4	13.4	-20.0
	2018	55,468	4.513	296	58	149	8.1	7.4	9.5	8.3	10.4	18.2	9.0	-22.2
	2017	73,439	3.976	283	69	148	7.2	6.6	8.3	7.4	9.3	15.8	9.9	-21.4
	2016	79,295	3.666	271	80	144	6.4	6.4	7.8	6.9	8.6	14.3	0.8	-18.7
	2015	49,835	3.893	258	93	130	6.3	6.0	7.5	6.6	8.4	13.8	6.0	-21.0
	2014	26,119	4.176	243	105	111	6.3	6.3	7.6	6.7	8.5	13.4	-0.7	-17.4
	2013	42,474	3.648	229	118	119	5.5	5.5	6.6	5.9	7.2	11.0	-0.9	-17.2
	2012	34,502	3.756	219	127	116	5.4	5.5	6.6	5.8	7.1	10.6	-1.7	-17.2
	2011	12,333	4.528	206	141	98	5.8	5.5	6.8	6.0	7.6	11.5	5.4	-19.7
	2010	11,122	4.928	195	153	95	6.0	5.6	7.3	6.3	7.4	11.7	6.8	-24.6
	2009	5,667	5.238	185	163	91	6.2	6.3	7.7	6.7	7.9	12.5	-0.5	-18.5
	2008	1,665	6.261	172	176	75	6.6	5.7	7.4	6.6	7.9	12.1	17.4	-24.5
	2007	772	6.478	161	188	68	6.7	7.1	6.7	6.8	8.2	11.7	-6.2	5.0
2006	584	6.334	147	201	62	7.2	7.1	7.3	7.2	9.1	11.8	1.5	-4.0	
2005	834	5.891	135	213	56	6.8	6.1	9.3	7.4	8.3	11.6	13.1	-35.4	
≤ 2004	2,464	6.312	107	241	41	7.7	8.2	8.6	8.2	8.8	11.2	-5.6	-4.5	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FNMA, Fixed 30, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.5	2021	42,048	2.481	332	23	346	2.1	1.6	2.4	2.1	2.6	3.7	30.0	-33.1
	2020	39,225	2.530	327	27	335	2.4	2.1	2.6	2.3	2.9	4.2	14.3	-18.7
2.0	2022	51,435	2.935	344	13	353	2.1	2.0	2.3	2.1	2.5	2.8	5.5	-11.9
	2021	477,781	2.845	335	20	304	2.7	2.3	2.9	2.6	3.2	4.6	14.8	-19.0
	2020	286,816	2.917	324	28	289	3.1	2.8	3.6	3.2	4.0	5.8	12.9	-22.8
2.5	2022	84,432	3.325	345	12	326	3.1	2.4	2.7	2.7	3.1	3.6	27.3	-12.3
	2021	325,654	3.246	338	19	260	3.4	2.9	3.6	3.3	4.0	5.7	17.9	-21.4
	2020	224,930	3.362	322	31	252	4.1	3.5	4.7	4.1	5.2	8.2	15.7	-24.8
	2019	13,368	3.478	313	40	289	3.8	3.2	4.5	3.8	5.1	8.6	18.3	-27.9
3.0	2022	72,628	3.736	347	11	301	3.2	2.7	2.9	2.9	3.2	3.6	19.1	-8.4
	2021	47,184	3.672	338	19	208	4.2	3.8	4.8	4.3	5.2	7.0	11.8	-20.6
	2020	69,742	3.794	320	33	202	5.1	4.4	6.1	5.2	6.6	10.9	15.3	-28.1
	2019	48,731	3.859	310	42	225	5.0	4.7	5.9	5.2	6.5	11.3	8.2	-21.4
	2016	57,436	3.635	271	78	199	4.8	4.7	5.6	5.0	6.2	9.9	1.4	-16.6
	2015	12,053	3.764	253	93	193	5.1	4.4	5.7	5.1	6.1	9.7	16.9	-24.5
	2013	47,020	3.569	226	118	162	4.5	4.7	5.5	4.9	5.8	8.6	-2.4	-15.2
3.5	2022	28,146	3.576	220	124	163	4.5	4.8	5.2	4.9	5.7	8.5	-7.0	-8.4
	2022	65,890	4.183	349	10	303	3.1	2.7	2.9	2.9	3.2	3.6	15.9	-7.1
	2020	13,012	4.212	318	35	161	6.1	5.5	7.2	6.3	7.8	13.1	11.6	-24.4
	2019	28,605	4.342	309	43	189	6.8	6.0	7.6	6.8	8.2	14.7	15.5	-22.1
	2018	13,245	4.075	290	60	201	5.5	5.4	7.0	6.0	7.5	12.5	2.7	-23.9
	2017	36,507	4.033	282	67	184	5.5	5.2	6.6	5.8	7.3	12.3	4.4	-21.4
	2016	25,085	4.054	269	80	151	5.4	5.7	7.1	6.1	7.4	12.3	-5.0	-20.9
	2015	33,280	4.093	256	91	164	5.7	5.3	6.7	5.9	7.3	11.9	6.6	-20.8
	2014	9,371	4.227	243	103	159	6.1	5.7	7.4	6.4	7.3	12.0	6.5	-23.8
4.0	2013	21,146	4.005	229	117	132	5.4	5.3	6.0	5.6	6.6	10.5	1.3	-10.8
	2012	32,274	3.993	216	128	137	5.2	5.5	6.3	5.7	6.8	9.9	-5.4	-13.3
	2022	68,049	4.811	351	8	318	3.3	2.8	3.3	3.1	3.4	3.8	16.7	-14.4
	2019	16,365	4.795	306	45	163	7.7	7.4	8.2	7.8	9.5	17.1	5.3	-10.0
	2018	28,752	4.607	295	56	185	6.5	6.4	7.8	6.9	8.7	16.0	2.4	-19.3
	2017	26,553	4.468	283	68	155	7.0	6.7	7.5	7.1	8.9	15.1	3.7	-11.1
	2015	10,943	4.559	257	92	124	6.8	6.4	7.3	6.9	8.4	13.5	6.3	-12.4
	2014	17,430	4.583	242	105	134	6.8	5.9	7.3	6.7	8.0	12.6	14.6	-19.3
2013	11,601	4.568	232	113	120	6.3	5.9	7.6	6.6	7.8	12.2	5.6	-22.0	
4.5	2022	70,937	5.341	352	6	312	3.6	3.2	3.8	3.5	4.1	4.4	12.4	-17.1
	2018	17,932	5.081	296	55	146	8.5	8.0	9.5	8.7	10.5	18.8	6.2	-16.4
5.0	2023	9,041	5.933	359	0	342	3.2	1.9		2.8	2.8	2.8	72.8	
	2022	53,878	5.799	353	5	286	4.3	3.9	4.4	4.2	4.8	4.9	11.7	-11.6
5.5	2023	12,709	6.460	358	1	318	5.7	3.4		4.9	4.9	4.9	72.5	
	2022	30,759	6.275	354	4	283	6.2	5.4	5.6	5.8	6.0	6.1	14.9	-3.3
6.0	2023	8,999	6.955	358	1	308	8.7	5.1		7.3	7.3	7.3	74.9	
	2022	13,633	6.844	355	3	276	9.1	7.8	6.4	7.8	7.3	7.4	17.6	21.3

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FHLMC, Fixed 30, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.5	2021	69,007	2.519	332	23	346	2.2	1.9	2.5	2.2	2.6	3.8	14.7	-22.0
	2020	47,714	2.545	327	27	327	2.5	2.1	2.7	2.4	3.1	4.3	19.5	-24.8
2.0	2022	50,927	2.952	345	12	355	2.1	1.9	2.1	2.0	2.3	2.9	10.8	-11.6
	2021	449,419	2.873	336	20	317	2.7	2.3	2.8	2.6	3.1	4.6	16.4	-17.6
	2020	247,073	2.928	325	28	290	3.2	2.8	3.5	3.2	4.0	5.8	11.5	-19.9
2.5	2022	75,511	3.324	345	12	322	2.7	2.3	2.8	2.6	3.0	3.7	16.6	-18.9
	2021	280,931	3.232	337	18	258	3.4	2.9	3.7	3.3	4.0	5.8	15.8	-20.3
	2020	150,177	3.379	322	31	256	4.1	3.6	4.7	4.1	5.2	8.4	12.9	-24.3
	2019	11,685	3.482	312	41	284	3.6	3.9	4.9	4.2	5.1	8.8	-5.8	-22.3
3.0	2022	65,850	3.736	347	11	283	2.9	2.4	3.1	2.8	3.3	3.8	23.5	-24.6
	2021	37,260	3.634	337	18	188	4.3	3.8	5.0	4.3	5.3	7.1	13.3	-24.2
	2020	45,570	3.840	318	35	211	5.2	4.7	6.0	5.3	6.6	11.1	11.0	-22.4
	2019	39,540	3.885	308	44	222	5.2	4.9	6.0	5.4	6.5	11.3	6.2	-19.7
	2016	41,806	3.698	271	78	200	4.8	4.3	5.7	4.9	6.2	10.4	11.6	-24.0
	2015	11,329	3.741	252	94	190	4.2	4.2	5.8	4.7	5.8	9.7	-0.1	-28.8
	2013	28,367	3.561	226	119	160	4.5	4.7	5.7	5.0	5.8	8.7	-3.6	-18.7
3.5	2022	13,705	3.604	219	124	158	4.3	4.5	5.8	4.8	5.9	8.7	-4.2	-23.0
	2022	52,250	4.220	348	10	291	3.0	2.6	3.2	3.0	3.4	3.9	14.7	-18.2
	2020	8,470	4.256	317	35	167	6.3	6.0	7.1	6.5	7.7	13.2	4.4	-14.9
	2019	19,805	4.344	308	44	195	6.6	6.6	7.2	6.8	8.2	14.7	-0.0	-9.8
	2018	9,588	4.125	288	62	194	5.8	5.8	7.3	6.3	7.6	13.1	-0.1	-21.0
	2017	27,626	4.053	282	67	186	5.8	5.4	6.9	6.0	7.5	12.7	6.9	-21.6
	2016	16,977	4.094	268	81	158	6.0	5.4	7.2	6.2	7.6	12.8	10.9	-25.3
	2015	23,516	4.101	255	92	161	5.5	5.5	6.6	5.9	7.2	12.1	0.1	-16.9
	2014	8,226	4.210	241	103	156	5.8	5.8	7.5	6.4	7.4	11.7	0.1	-24.2
	2013	13,089	3.999	228	116	133	5.6	5.5	6.2	5.8	6.7	10.7	1.0	-10.3
2012	16,836	3.993	215	128	132	5.5	5.3	6.2	5.7	6.7	10.2	2.7	-15.0	
4.0	2022	63,646	4.835	351	7	317	3.0	2.7	3.2	3.0	3.5	3.8	13.2	-18.1
	2019	11,139	4.743	305	46	164	7.5	7.0	8.5	7.7	9.2	16.5	7.7	-18.7
	2018	18,440	4.608	294	57	184	6.8	7.3	8.1	7.4	9.0	16.3	-7.8	-10.4
	2017	17,108	4.469	282	68	160	7.0	6.8	7.4	7.1	8.7	15.2	2.5	-8.6
	2015	6,833	4.550	253	94	125	6.0	6.9	8.0	7.0	8.2	13.4	-12.5	-14.2
	2014	11,555	4.592	242	104	134	6.2	6.6	7.0	6.6	8.0	13.2	-5.8	-6.2
4.5	2022	5,695	4.576	232	114	120	6.3	5.9	7.1	6.4	7.7	12.7	7.3	-16.7
	2018	12,213	5.022	295	55	145	7.9	7.4	9.0	8.1	10.2	18.4	8.1	-19.4
5.0	2022	63,028	5.347	351	6	315	3.8	3.4	4.1	3.8	4.5	4.8	10.3	-15.4
	2018	8,878	5.923	358	1	346	3.2	2.6		3.0	3.0	3.0	26.1	
5.5	2022	49,084	5.791	352	5	287	4.6	4.3	5.0	4.6	5.2	5.3	7.9	-15.5
	2022	12,484	6.433	358	1	318	5.4	3.9		4.9	4.9	4.9	40.0	
6.0	2022	24,595	6.233	354	4	271	6.5	5.8	5.8	6.0	6.2	6.3	13.4	-1.3
	2023	7,668	6.910	357	1	282	8.9	5.5		7.6	7.6	7.6	62.6	
	2022	11,961	6.811	355	3	269	9.1	7.8	5.9	7.6	7.5	7.5	17.1	32.3

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

GNMA I, Fixed 30, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
2.0	2022	41	2.678	343	13	153	0.1	0.2	0.2	0.2	0.2	0.2	-34.9	-15.4
	2021	225	2.665	338	19	138	1.7	1.1	1.6	1.5	2.5	2.6	63.4	-34.7
	2020	30	2.748	329	28	124	10.3	0.2	7.2	5.9	4.8	5.0	6506.2	-97.8
2.5	2022	149	3.187	346	13	167	2.3	2.7	0.1	1.7	1.0	1.4	-17.8	3484.7
	2021	386	3.172	337	19	151	3.8	2.8	0.3	2.3	1.7	1.8	37.2	1018.7
	2020	338	3.054	323	31	148	2.4	3.7	2.0	2.7	4.1	7.2	-34.8	85.5
3.0	2022	209	3.592	346	12	166	2.5	0.1	0.7	1.1	0.9	0.9	3751.9	-90.5
	2021	375	3.504	337	20	150	3.4	1.7	2.7	2.6	2.1	2.6	102.2	-36.6
	2020	773	3.526	323	34	182	4.5	7.2	8.8	6.8	6.7	11.2	-38.5	-19.0
	2019	387	3.537	315	40	155	4.1	6.4	13.0	7.9	8.6	12.3	-36.5	-52.8
	2017	163	3.550	284	69	104	4.7	3.3	5.8	4.6	5.1	6.6	44.9	-44.8
	2016	333	3.509	273	79	108	6.5	2.4	5.0	4.6	5.4	7.9	182.3	-53.6
	2015	641	3.507	257	93	127	6.8	3.5	4.9	5.1	6.9	10.6	100.7	-30.1
	2013	4,758	3.502	229	119	116	5.5	5.0	6.5	5.7	7.0	10.1	10.2	-22.8
2012	2,782	3.522	222	125	116	4.6	4.9	6.4	5.3	6.5	9.7	-7.3	-23.3	
3.5	2022	120	4.131	349	9	173	0.1	0.1	0.1	0.1	0.1	0.2	13.5	-6.6
	2021	35	4.000	338	20	160	0.0	0.0	0.1	0.0	5.9	3.3	50.1	-89.2
	2020	250	4.008	323	34	164	6.8	5.7	6.7	6.4	7.3	12.6	19.7	-15.8
	2019	311	4.023	314	42	162	2.4	7.4	5.7	5.2	8.9	13.6	-68.1	30.3
	2018	230	4.034	296	58	118	4.2	2.0	4.1	3.5	5.9	8.9	111.7	-50.8
	2017	430	4.006	287	67	127	6.1	5.3	5.3	5.6	7.7	12.3	15.8	0.4
	2016	252	4.006	273	80	115	6.1	5.3	5.0	5.5	6.7	9.8	16.1	5.4
	2015	622	4.004	257	94	108	6.6	5.2	5.7	5.8	7.7	11.2	28.0	-9.4
	2014	331	4.010	247	104	96	5.0	3.4	8.0	5.5	7.0	9.0	44.9	-58.0
	2013	1,475	4.001	227	117	92	5.2	5.5	6.7	5.8	7.2	11.0	-5.2	-19.0
2012	3,600	4.009	217	130	101	6.8	5.4	6.2	6.1	7.1	10.5	27.7	-12.9	
4.0	2022	306	4.557	349	10	216	3.1	3.2	3.2	3.1	5.5	4.2	-3.3	0.7
	2019	258	4.519	311	44	139	4.2	2.4	5.6	4.1	6.3	10.8	76.8	-57.4
	2018	266	4.556	297	57	118	3.4	4.9	1.9	3.4	6.0	10.4	-30.7	166.2
	2017	306	4.503	286	69	136	4.7	3.5	8.9	5.7	7.8	15.3	37.0	-62.0
	2015	779	4.505	258	93	104	5.1	5.7	8.1	6.3	7.5	13.2	-10.6	-29.6
	2014	534	4.500	242	105	85	6.8	6.4	6.5	6.6	8.2	12.3	7.5	-2.4
2011	3,137	4.542	208	141	99	5.8	6.4	7.4	6.5	7.4	11.1	-9.6	-13.5	
4.5	2022	243	5.067	352	7	188	2.0	0.1	0.8	0.9	0.6	0.5	3198.1	-92.5
	2019	125	5.040	309	46	122	7.1	6.7	6.5	6.8	5.9	13.2	7.2	2.7
	2018	135	5.056	300	55	115	6.2	2.5	5.7	4.8	4.8	11.3	157.9	-57.5
5.0	2023	21	5.612	358	1	164	0.3	1.5		0.6	0.6	0.6	-77.1	
	2022	274	5.535	353	6	206	0.1	4.0	2.2	2.1	1.2	1.0	-96.6	85.0
5.5	2023	48	6.077	358	2	198	0.2	0.4		0.3	0.3	0.3	-42.7	
	2022	125	6.090	354	5	174	3.4	12.3	4.0	6.7	4.3	3.9	-73.6	220.9
6.0	2023	71	6.535	358	1	191	0.5	0.5		0.5	0.5	0.5	-2.2	
	2022	103	6.531	355	4	172	3.7	8.5	0.1	4.1	3.1	3.0	-57.0	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

GNMA II, Fixed 30, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
2.0	2022	35,110	2.498	345	12	325	3.6	3.4	3.7	3.6	4.6	4.0	7.6	-9.4
	2021	270,773	2.404	333	20	284	4.6	4.0	4.8	4.5	5.6	8.6	15.1	-16.8
	2020	87,156	2.431	325	27	280	5.4	4.1	5.5	5.0	6.4	9.9	31.6	-25.7
2.5	2022	70,917	3.001	345	13	255	4.5	3.9	4.3	4.2	4.9	4.6	15.6	-7.8
	2021	248,962	2.923	336	19	239	4.9	4.2	5.2	4.8	5.9	8.5	16.8	-18.7
	2020	160,854	2.922	324	30	237	5.9	5.1	6.4	5.8	7.4	11.8	15.9	-20.2
3.0	2022	61,758	3.454	346	12	256	4.5	3.6	4.0	4.0	4.5	4.2	24.1	-10.4
	2021	89,671	3.395	336	19	211	5.4	4.5	5.3	5.1	6.2	9.0	20.2	-15.8
	2020	74,284	3.470	322	33	198	7.2	6.2	7.5	6.9	8.6	14.2	16.2	-17.3
	2019	30,223	3.514	314	42	214	7.2	5.7	7.7	6.9	9.0	15.6	25.6	-25.7
	2017	14,225	3.446	282	70	167	6.4	6.1	7.7	6.7	8.6	14.2	5.1	-21.2
	2016	40,626	3.408	273	78	162	6.3	6.2	7.5	6.7	8.4	14.1	2.0	-18.1
	2015	12,469	3.463	258	93	153	5.9	5.4	6.7	6.0	7.8	13.0	8.7	-19.7
	2013	22,666	3.328	228	118	131	5.3	5.3	6.0	5.5	6.7	10.3	-0.1	-11.8
3.5	2022	51,697	3.945	348	11	268	3.8	2.9	3.3	3.3	3.3	2.8	33.3	-12.2
	2021	20,178	3.888	335	23	203	5.2	3.9	4.9	4.7	5.9	9.6	32.6	-19.8
	2020	22,254	3.927	319	36	163	7.3	6.9	8.6	7.6	9.4	16.0	5.6	-19.7
	2019	26,193	4.005	312	43	178	7.9	6.9	8.0	7.6	9.8	17.3	14.6	-14.0
	2018	13,780	3.940	292	61	159	7.8	6.7	9.7	8.1	9.8	16.6	17.5	-32.3
	2017	37,297	3.893	284	68	155	7.3	6.5	8.2	7.3	9.3	15.7	13.2	-21.5
	2016	28,833	3.881	271	81	133	6.7	6.5	8.1	7.1	8.8	14.7	2.2	-19.8
	2015	26,978	3.876	259	92	133	6.4	6.1	7.9	6.8	8.5	14.0	4.5	-23.2
	2014	10,957	3.903	247	103	125	6.0	6.0	7.6	6.6	8.3	13.3	0.0	-21.0
	2013	12,840	3.834	228	117	111	5.6	5.5	6.8	6.0	7.4	11.3	1.0	-19.1
4.0	2022	67,058	4.517	351	8	301	2.5	2.1	2.1	2.3	2.2	2.1	18.7	0.3
	2019	17,367	4.506	310	46	155	9.0	7.0	10.1	8.7	10.7	18.7	28.7	-31.2
	2018	19,493	4.462	297	57	154	8.3	6.9	8.9	8.0	10.2	18.0	21.5	-23.6
	2017	17,487	4.387	285	68	132	7.4	6.9	8.8	7.7	9.5	16.9	8.3	-22.7
	2015	8,543	4.363	258	93	110	6.6	5.9	7.1	6.5	8.5	14.2	11.8	-17.7
	2014	10,949	4.353	243	105	104	6.2	6.6	7.4	6.8	8.6	13.7	-6.9	-11.0
	2011	5,060	4.357	208	140	103	5.5	5.5	7.3	6.1	7.6	11.4	0.4	-25.9
4.5	2022	70,778	5.024	352	6	296	2.7	1.8	1.7	2.1	1.9	1.9	50.7	3.5
	2019	9,928	4.972	308	48	140	8.0	8.8	10.8	9.2	11.1	20.2	-9.4	-19.3
	2018	13,752	4.938	299	56	140	7.9	8.3	9.8	8.6	10.9	19.6	-4.9	-16.0
5.0	2023	9,286	5.578	358	1	318	0.9	1.1		1.0	1.0	1.0	-20.9	
	2022	55,176	5.530	353	5	271	3.0	2.2	1.8	2.3	2.0	1.9	39.9	21.1
5.5	2023	12,680	6.081	358	1	302	1.2	0.8		1.1	1.1	1.1	46.7	
	2022	29,765	5.997	355	4	269	2.5	1.8	1.3	1.8	1.6	1.6	38.6	41.3
6.0	2023	11,401	6.590	358	1	276	1.5	1.1		1.4	1.4	1.4	33.1	
	2022	12,425	6.528	356	3	273	1.8	1.9	1.0	1.6	1.5	1.5	-3.4	89.7

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 20, by Coupon

Agency	Coupon	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
FNMA	≤ 1.5	22,568	2.467	216	22	278	2.1	1.9	2.6	2.2	2.6	3.5	9.2	-26.5
	2.0	61,428	2.834	215	22	232	2.8	2.6	3.0	2.8	3.4	4.7	9.0	-14.2
	2.5	26,977	3.223	207	29	183	3.6	3.4	4.0	3.7	4.5	6.3	5.2	-15.7
	3.0	25,242	3.629	155	77	125	5.2	5.2	6.3	5.6	6.3	9.1	0.1	-16.9
	3.5	13,345	4.062	144	88	104	6.2	6.3	7.0	6.5	7.3	10.6	-2.1	-10.6
	4.0	8,880	4.553	153	80	101	7.1	6.8	8.4	7.4	8.3	12.1	3.9	-19.1
	4.5	2,584	5.058	151	83	80	7.2	8.4	9.2	8.3	9.4	12.7	-15.1	-8.7
	5.0	949	5.682	183	54	62	8.3	7.9	9.6	8.5	9.9	13.2	5.1	-18.5
	5.5	445	6.254	170	67	45	13.2	9.7	13.4	12.1	12.9	16.1	38.4	-29.0
≥ 6.0	236	6.819	132	105	37	11.9	7.5	9.0	9.5	11.5	15.1	63.4	-17.3	
FHLMC	≤ 1.5	18,627	2.479	215	22	273	2.1	1.9	2.4	2.1	2.5	3.7	12.1	-21.3
	2.0	53,668	2.855	215	22	234	2.9	2.6	3.0	2.8	3.4	4.7	13.2	-14.3
	2.5	20,092	3.279	210	26	200	3.4	3.3	4.1	3.6	4.4	6.3	4.1	-19.8
	3.0	17,699	3.668	162	71	130	5.1	5.2	5.8	5.4	6.1	9.0	-2.1	-10.9
	3.5	8,587	4.099	150	83	106	5.7	5.5	6.8	6.0	6.7	10.4	3.6	-19.7
	4.0	5,078	4.611	154	80	98	5.8	7.0	7.4	6.8	7.8	11.6	-17.3	-5.0
	4.5	1,704	5.099	157	78	84	7.6	8.3	8.3	8.1	9.0	12.8	-8.1	-0.8
	5.0	734	5.687	179	57	55	11.2	9.7	11.2	10.7	11.3	14.3	17.2	-14.8
	5.5	303	6.236	156	81	36	12.0	9.3	12.3	11.2	13.0	16.4	30.4	-25.6
≥ 6.0	198	6.828	134	103	36	14.8	15.0	12.4	14.2	13.5	15.4	-1.4	22.9	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 20, by Issue Year

Agency	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ		
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan	
FNMA	2023	432	6.121	238	1	227	11.4	5.5			9.4	9.4	9.4	115.0	
	2022	16,323	3.484	228	11	226	3.7	3.1	3.9	3.6	3.6	3.4		18.3	-19.4
	2021	63,591	2.769	218	20	229	2.6	2.3	3.0	2.7	3.3	4.4		13.1	-23.1
	2020	37,908	3.025	206	30	215	3.1	3.2	3.5	3.3	4.0	6.2		-0.5	-10.8
	2019	3,939	3.965	189	45	163	5.4	5.5	6.7	5.9	7.0	11.5		-2.2	-17.8
	2018	3,382	4.356	175	57	128	6.8	6.7	8.3	7.3	8.4	13.2		1.3	-20.3
	2017	5,908	3.927	164	68	131	5.6	5.6	6.7	6.0	6.9	10.9		-1.2	-16.6
	2016	7,383	3.602	154	78	136	4.9	5.4	5.9	5.4	6.5	9.8		-9.1	-9.7
	2015	3,830	3.955	140	92	110	5.5	5.9	6.4	5.9	6.8	10.1		-8.0	-7.1
	2014	2,274	4.362	128	104	92	6.0	6.3	6.9	6.4	7.6	11.3		-5.5	-7.9
	2013	6,471	3.731	114	117	87	6.6	6.3	7.7	6.9	7.5	9.8		6.0	-18.6
	2012	6,494	3.759	104	127	88	6.8	6.8	7.8	7.1	7.5	10.1		0.7	-13.2
	2011	2,418	4.338	93	139	75	7.2	8.1	8.7	8.0	8.8	11.3		-11.4	-6.8
	2010	1,360	4.576	82	150	66	8.3	8.9	8.7	8.6	9.7	12.0		-7.0	1.6
	2009	523	4.870	68	164	48	12.0	11.6	12.3	12.0	11.7	13.3		3.7	-6.0
	2008	109	5.977	57	177	37	12.0	10.9	12.1	11.7	11.3	13.7		9.8	-10.1
	2007	98	6.379	48	188	30	11.3	10.8	9.6	10.6	12.0	14.5		5.2	13.1
2006	61	6.382	36	200	23	13.3	12.7	17.2	14.5	15.0	16.8		4.8	-27.6	
2005	82	5.741	26	212	18	17.2	14.1	17.0	16.1	15.0	17.3		23.9	-18.7	
≤ 2004	71	5.668	13	226	7	32.5	29.9	30.5	30.9	28.6	27.1		10.3	-2.4	
FHLMC	2023	279	6.204	237	1	208	13.0	3.8			9.5	9.5	9.5	257.7	
	2022	14,655	3.469	228	11	232	2.8	3.0	3.6	3.1	3.3	3.1		-6.3	-17.6
	2021	53,224	2.792	218	20	235	2.7	2.5	2.9	2.7	3.3	4.5		11.6	-15.3
	2020	31,100	3.044	207	30	219	3.3	2.9	3.7	3.3	4.0	6.2		14.9	-22.6
	2019	3,643	3.924	193	42	170	4.2	4.6	5.9	4.9	6.2	11.1		-9.6	-22.2
	2018	1,743	4.431	176	57	130	6.7	7.6	6.9	7.1	8.2	13.6		-11.7	9.8
	2017	3,181	3.896	163	69	133	4.7	5.6	6.5	5.6	6.7	10.8		-16.2	-15.5
	2016	3,988	3.685	153	79	128	5.2	4.8	6.2	5.4	6.5	9.8		8.3	-23.4
	2015	3,219	3.896	138	94	110	6.3	6.3	6.1	6.2	7.0	10.3		-0.1	2.9
	2014	1,306	4.322	128	104	93	5.6	5.5	7.8	6.3	6.6	10.9		2.0	-30.8
	2013	3,776	3.736	113	117	86	6.6	6.6	6.5	6.6	7.4	10.0		0.0	1.3
	2012	3,681	3.821	102	128	82	6.8	7.4	7.3	7.2	7.5	10.2		-7.9	1.2
	2011	1,362	4.394	92	139	76	8.1	8.8	7.9	8.2	8.9	11.8		-8.3	11.6
	2010	991	4.627	82	150	64	8.6	8.9	9.5	9.0	9.8	12.7		-3.2	-6.4
	2009	193	4.870	69	163	53	8.4	10.1	10.7	9.8	10.3	13.0		-17.7	-6.2
	2008	65	5.968	56	179	35	15.4	9.9	13.2	12.8	12.5	13.0		59.7	-26.0
	2007	70	6.324	48	188	29	11.1	11.5	14.3	12.3	11.7	15.0		-3.9	-21.1
2006	62	6.387	37	200	22	11.6	15.4	15.0	14.1	13.7	14.3		-26.2	2.8	
2005	84	5.747	26	211	17	16.5	15.1	15.4	15.7	16.1	17.0		10.1	-1.7	
≤ 2004	69	5.586	12	227	6	31.9	31.9	29.8	31.1	28.3	27.8		0.2	8.2	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FNMA, Fixed 20, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.5	2022	475	2.429	226	13	328	2.2	2.8	2.3	2.4	1.9	1.7	-22.9	22.1
	2021	16,239	2.445	218	20	287	2.0	1.7	2.3	2.0	2.4	3.4	17.5	-28.3
	2020	5,854	2.529	210	27	253	2.4	2.5	3.3	2.7	3.1	4.0	-3.3	-25.7
2.0	2022	5,242	2.824	226	13	249	3.2	2.6	2.8	2.9	2.9	3.1	24.7	-8.4
	2021	37,262	2.801	218	19	233	2.8	2.5	3.1	2.8	3.4	4.5	13.7	-19.8
	2020	18,924	2.903	207	29	228	2.8	2.9	3.0	2.9	3.5	5.4	-3.0	-4.4
2.5	2022	4,355	3.150	227	12	219	3.3	2.9	3.5	3.2	3.4	3.3	13.4	-16.9
	2021	9,329	3.139	218	20	170	3.2	3.0	4.1	3.4	4.3	5.5	9.4	-28.2
	2020	10,756	3.320	204	32	197	3.8	3.6	3.9	3.8	4.7	7.4	6.0	-7.9
	2019	570	3.353	193	42	224	3.1	3.9	3.4	3.4	5.1	8.5	-22.0	15.9
	2016	1,066	3.189	155	76	165	3.2	5.5	5.6	4.8	5.8	8.7	-41.8	-1.5
	2013	511	3.249	111	119	98	6.4	5.4	6.9	6.2	6.8	9.4	18.6	-22.3
3.0	2022	2,447	3.586	228	10	210	2.6	2.2	4.4	3.1	3.2	3.0	20.7	-51.2
	2021	726	3.544	218	19	125	2.2	2.6	3.6	2.8	4.7	6.4	-14.5	-28.2
	2020	1,979	3.789	201	34	159	5.0	5.1	6.8	5.7	6.6	11.0	-2.6	-25.1
	2019	2,065	3.748	188	45	178	5.0	4.9	7.0	5.6	6.4	10.4	1.9	-31.3
	2017	2,088	3.581	163	69	153	5.0	4.9	5.7	5.2	6.2	9.3	1.0	-13.2
	2016	5,412	3.583	154	78	138	5.1	5.4	5.7	5.4	6.3	9.7	-5.9	-5.9
	2015	2,232	3.758	139	92	128	5.0	5.9	5.7	5.5	6.3	9.4	-15.8	5.1
	2013	4,226	3.576	113	118	89	6.9	5.9	7.5	6.8	7.4	9.4	16.9	-22.4
3.5	2022	1,201	4.069	229	9	206	6.2	3.0	2.9	4.0	4.0	3.8	110.1	1.3
	2019	696	4.314	190	44	144	7.0	5.9	7.8	6.9	8.5	13.9	18.8	-24.8
	2018	986	3.934	172	60	145	5.5	5.4	5.9	5.6	7.0	11.1	3.1	-9.8
	2017	2,354	3.971	164	68	127	5.9	6.2	6.5	6.2	6.9	11.2	-4.8	-4.8
	2016	568	4.053	152	80	107	6.1	5.2	6.3	5.9	7.6	11.2	16.7	-17.8
	2015	1,105	4.146	140	92	95	6.4	6.0	6.9	6.4	7.3	11.0	7.4	-13.6
	2014	1,056	4.250	127	104	98	6.2	6.6	6.8	6.6	7.2	10.5	-6.6	-2.8
	2013	1,325	4.106	116	115	80	5.4	7.8	8.3	7.2	8.1	10.9	-31.8	-5.9
	2012	2,455	3.988	101	129	83	6.8	7.1	8.3	7.4	7.9	10.7	-3.5	-15.2
4.0	2022	1,208	4.775	231	7	225	6.0	6.4	6.4	6.3	5.5	5.6	-6.0	0.5
	2019	415	4.736	187	47	131	7.8	7.8	5.5	7.0	8.3	14.9	-0.6	44.1
	2018	1,782	4.497	176	56	130	7.7	6.9	10.0	8.2	9.0	14.0	12.2	-32.2
	2017	1,307	4.438	166	67	110	5.7	5.4	9.0	6.8	7.9	13.0	5.3	-40.8
	2015	477	4.454	141	91	86	5.6	5.8	8.4	6.6	7.9	11.2	-3.7	-31.2
	2014	876	4.648	127	104	83	6.4	6.3	6.9	6.5	8.4	12.2	1.0	-9.6
	2011	900	4.481	92	140	73	7.9	8.8	8.4	8.4	8.9	11.4	-11.4	5.8
	2010	687	4.447	83	148	68	8.8	9.0	9.2	9.0	9.5	11.8	-2.0	-2.8
4.5	2022	729	5.206	232	5	215	4.9	6.0	8.1	6.4	7.1	7.2	-18.5	-26.7
	2010	421	4.914	79	152	62	7.0	7.6	8.7	7.8	9.5	12.1	-7.9	-13.7
5.0	2022	452	5.704	234	4	193	5.1	4.0	6.4	5.2	6.4	6.7	26.8	-38.5

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FHLMC, Fixed 20, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.5	2022	252	2.394	225	13	312	0.2	0.4	2.7	1.1	2.2	1.7	-35.7	-86.2
	2021	14,766	2.466	216	21	276	2.2	1.9	2.4	2.1	2.5	3.6	16.5	-20.6
	2020	3,609	2.536	210	27	260	1.8	1.9	2.4	2.0	2.5	4.1	-5.1	-19.2
2.0	2022	4,503	2.796	226	12	259	2.7	1.9	2.4	2.4	2.6	2.7	38.4	-20.6
	2021	31,927	2.837	218	19	232	2.8	2.6	2.8	2.7	3.3	4.6	7.7	-8.2
	2020	17,237	2.906	208	29	231	3.2	2.7	3.5	3.1	3.6	5.5	18.1	-22.2
2.5	2022	4,089	3.136	227	12	227	2.2	3.0	2.8	2.7	3.0	3.1	-27.7	8.5
	2021	6,196	3.280	219	19	188	3.6	2.9	4.3	3.6	4.4	5.9	24.0	-33.4
	2020	8,131	3.342	205	31	204	3.6	3.5	4.2	3.8	4.7	7.7	4.3	-16.1
	2019	725	3.392	195	40	231	2.9	3.3	5.1	3.8	4.8	8.7	-14.1	-36.1
	2016	618	3.294	155	77	162	6.5	3.9	7.0	5.8	6.2	8.6	69.5	-45.1
	2013	170	3.209	110	120	98	5.5	7.6	5.6	6.2	8.0	9.3	-28.6	36.2
3.0	2022	2,438	3.566	229	10	218	3.1	3.2	4.4	3.6	3.4	3.2	-3.4	-26.5
	2021	266	3.815	219	19	157	3.9	5.1	4.4	4.5	6.5	8.0	-24.4	16.6
	2020	1,757	3.795	201	34	163	5.4	3.6	6.1	5.0	5.9	9.9	51.6	-42.7
	2019	1,896	3.782	194	41	180	3.7	4.7	5.3	4.6	6.1	10.1	-20.1	-12.7
	2017	1,730	3.691	163	69	145	4.5	5.4	6.2	5.4	6.1	9.9	-17.4	-12.3
	2016	2,863	3.668	153	79	129	4.6	4.8	6.0	5.2	6.4	9.8	-4.4	-19.7
	2015	2,047	3.708	137	94	122	6.4	6.4	5.7	6.2	6.6	10.0	0.5	13.6
	2013	2,590	3.570	113	118	89	6.7	6.3	6.5	6.5	7.3	9.7	5.4	-3.2
3.5	2022	1,223	4.054	230	9	209	2.3	3.0	5.6	3.6	3.7	3.3	-21.6	-47.1
	2019	622	4.335	189	45	148	6.1	4.6	5.9	5.6	6.3	13.4	35.4	-23.4
	2018	567	4.129	174	59	138	5.8	6.6	7.2	6.5	7.0	12.1	-12.6	-9.1
	2017	899	4.081	164	68	124	5.2	5.2	7.2	5.9	7.4	11.7	-0.9	-28.0
	2016	372	4.160	151	82	104	6.5	5.2	5.6	5.8	6.3	11.0	24.8	-7.8
	2015	928	4.154	138	94	98	6.2	5.7	7.0	6.3	7.2	10.7	9.8	-20.1
	2014	668	4.241	128	104	98	5.6	4.7	6.8	5.7	6.2	10.7	20.3	-31.5
	2013	720	4.059	116	116	81	6.1	6.0	5.9	6.0	7.1	10.3	2.9	2.0
4.0	2022	1,022	4.764	231	7	226	1.6	3.4	4.8	3.3	4.2	4.1	-51.5	-30.1
	2019	273	4.761	188	46	126	5.0	6.8	8.6	6.8	7.7	15.3	-27.4	-21.5
	2018	813	4.651	177	56	126	7.8	8.1	6.8	7.6	8.7	14.6	-3.9	19.4
	2017	418	4.553	165	68	107	5.4	7.1	7.9	6.8	8.0	13.0	-24.0	-11.0
	2015	240	4.498	137	95	84	5.2	7.6	6.3	6.3	8.5	11.2	-32.6	21.3
	2014	423	4.636	127	106	84	6.3	6.8	10.0	7.7	7.5	11.7	-7.7	-33.3
	2011	543	4.466	91	140	74	6.7	8.3	6.8	7.3	8.5	11.0	-20.6	23.8
	2010	600	4.476	83	149	63	8.1	8.5	10.0	8.9	9.5	12.1	-4.8	-15.3
4.5	2022	611	5.272	233	5	220	5.9	5.2	5.4	5.5	5.9	5.6	12.7	-2.5
	2010	276	4.922	80	152	64	8.3	8.5	8.6	8.5	9.6	13.3	-2.8	-0.4
5.0	2022	394	5.745	233	4	199	5.7	7.9	7.6	7.1	7.3	7.4	-29.5	5.1

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 15, by Coupon

Agency	Coupon	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
FNMA	≤ 1.5	98,276	2.143	156	21	254	2.8	2.8	3.0	2.9	3.3	4.4	0.0	-6.7
	2.0	168,806	2.573	150	25	184	4.1	3.9	4.5	4.2	4.7	6.3	3.7	-13.5
	2.5	94,455	3.006	116	57	114	6.1	6.2	6.8	6.4	7.1	9.5	-0.9	-9.3
	3.0	50,754	3.513	101	73	84	8.0	8.2	8.8	8.3	9.0	12.0	-2.6	-7.1
	3.5	21,809	4.045	108	66	70	9.0	9.4	10.1	9.5	10.3	13.6	-4.7	-7.2
	4.0	7,450	4.591	120	55	61	10.4	9.9	11.0	10.5	11.9	15.3	5.2	-9.8
	4.5	2,860	5.060	151	26	76	9.7	11.9	11.5	11.0	12.2	14.6	-19.4	3.8
	5.0	1,519	5.619	171	6	126	10.6	13.2	11.9	11.9	12.2	13.6	-20.4	11.4
	5.5	687	6.210	174	3	129	14.5	12.7	11.6	13.2	13.8	16.0	15.9	9.4
≥ 6.0	77	6.814	169	7	55	9.3	15.9	10.1	12.1	15.9	26.6	-43.5	61.8	
FHLMC	≤ 1.5	101,002	2.236	155	22	246	3.2	3.0	3.5	3.2	3.7	5.0	8.6	-13.9
	2.0	130,319	2.640	151	25	178	4.0	4.0	4.5	4.1	4.7	6.4	1.0	-11.3
	2.5	58,944	3.082	111	63	107	6.7	6.6	7.5	7.0	7.6	10.5	1.4	-12.4
	3.0	35,708	3.578	104	70	87	7.8	8.0	8.7	8.2	8.9	12.2	-2.4	-8.1
	3.5	13,908	4.137	117	57	76	9.0	9.2	9.2	9.1	10.0	13.7	-2.3	-0.6
	4.0	6,114	4.691	135	41	75	9.3	10.6	10.3	10.1	11.3	14.8	-12.6	3.0
	4.5	2,288	5.165	157	20	90	11.3	12.0	12.5	11.9	13.0	14.9	-5.4	-4.9
	5.0	1,276	5.734	173	4	145	13.0	11.0	15.4	13.0	13.1	14.4	18.8	-29.9
	5.5	613	6.258	175	3	147	16.3	13.4	14.4	14.8	15.1	16.2	24.1	-7.3
≥ 6.0	101	6.813	174	3	103	17.4	19.4	2.2	16.2	16.8	19.5	-11.2	870.0	
GNMA I	2.0	9	2.500	54	119	54	9.5	4.7	5.8	6.7	7.8	11.7	108.2	-18.9
	2.5	311	3.000	53	121	46	11.2	13.1	10.8	11.7	12.4	13.8	-14.7	22.4
	3.0	488	3.500	49	127	39	12.3	12.8	12.7	12.6	12.7	15.0	-4.3	0.9
	3.5	250	4.000	47	135	31	13.8	14.0	12.6	13.4	13.5	15.7	-1.9	12.4
	4.0	270	4.500	34	146	21	16.7	17.9	17.7	17.5	17.0	18.9	-7.2	1.1
	4.5	56	5.000	27	155	15	16.7	20.0	18.0	18.3	18.5	19.9	-17.7	12.1
	5.0	11	5.500	21	170	9	19.2	24.4	25.9	23.4	23.2	22.2	-23.6	-6.9
	5.5	5	6.000	24	189	7	25.9	29.7	23.5	26.4	25.1	22.9	-14.8	31.0
≥ 6.0	5	6.670	22	199	7	19.7	28.3	17.0	21.7	22.6	23.5	-33.6	77.7	
GNMA II	≤ 1.5	943	1.926	157	18	206	5.6	4.1	7.3	5.6	5.9	6.7	38.6	-45.0
	2.0	5,179	2.376	151	22	155	6.6	6.7	7.6	7.0	7.9	9.6	-1.5	-12.7
	2.5	5,690	2.902	116	58	95	8.7	8.3	8.9	8.6	9.4	12.0	5.1	-7.5
	3.0	4,626	3.418	96	77	66	9.5	9.6	10.3	9.8	10.9	14.0	-2.1	-6.2
	3.5	2,584	3.931	108	67	66	10.7	9.6	10.4	10.2	11.3	15.0	12.3	-8.3
	4.0	774	4.458	123	57	63	7.9	10.6	7.6	8.7	10.2	14.3	-26.3	40.3
	4.5	218	4.927	150	32	73	5.8	9.1	10.5	8.4	7.4	10.5	-37.8	-13.7
	5.0	68	5.466	166	17	97	3.9	3.4	2.5	3.4	4.6	7.5	14.7	35.4
	5.5	23	5.889	166	25	67	6.1	3.5	3.1	4.3	7.7	11.6	78.7	10.2
≥ 6.0	8	6.506	147	41	36	4.6	6.7	18.3	7.1	10.9	18.5	-32.2	-65.8	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 15, by Issue Year

Agency	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ		
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan	
FNMA	2023	1,273	5.657	177	1	217	11.3	10.0			10.9	10.9	10.9	14.0	
	2022	48,097	3.199	167	10	209	4.4	4.4	4.7	4.5	4.8	4.8	-0.7	-7.1	
	2021	172,709	2.390	156	20	203	3.5	3.4	3.9	3.6	4.1	5.3	4.4	-12.6	
	2020	108,646	2.706	144	30	183	4.3	4.3	4.9	4.5	5.3	7.5	0.3	-13.1	
	2019	15,345	3.543	130	42	135	7.1	7.2	8.0	7.5	8.5	12.2	-0.8	-10.9	
	2018	7,797	3.959	114	57	102	8.4	8.5	9.4	8.8	9.8	13.9	-1.9	-9.0	
	2017	15,757	3.404	105	68	104	7.3	7.3	8.0	7.6	8.5	11.8	-0.0	-9.4	
	2016	21,562	3.061	94	79	103	6.8	7.0	7.4	7.1	7.8	10.6	-1.8	-6.4	
	2015	12,312	3.321	81	92	83	7.8	8.1	8.6	8.2	8.8	11.7	-3.4	-6.3	
	2014	7,286	3.622	69	105	63	8.9	9.7	10.1	9.6	10.2	12.8	-8.9	-3.4	
	2013	16,367	3.086	58	117	61	8.9	9.2	9.7	9.3	9.7	12.0	-3.6	-5.3	
	2012	13,144	3.168	49	126	53	10.0	10.6	10.8	10.5	10.9	13.2	-5.5	-1.8	
	2011	4,158	3.797	37	138	37	13.5	13.7	13.7	13.6	13.8	16.0	-1.3	-0.1	
2010	1,803	4.124	28	149	26	16.7	17.3	16.4	16.8	16.9	18.8	-3.9	6.0		
2009	416	4.639	16	162	15	22.7	23.8	23.9	23.5	22.1	23.3	-5.4	-0.2		
2008	22	5.747	6	174	4	55.0	49.1	46.7	49.5	42.4	35.8	17.6	7.3		
FHLMC	2023	1,226	5.685	177	1	219	12.6	11.4		12.1	12.1	12.1	11.6		
	2022	40,309	3.284	168	10	210	4.5	4.6	4.8	4.7	5.0	4.9	-2.6	-3.2	
	2021	137,471	2.419	156	20	205	3.5	3.3	3.8	3.6	4.1	5.4	6.1	-12.9	
	2020	91,793	2.700	145	30	186	4.4	4.3	5.0	4.6	5.3	7.5	3.3	-13.8	
	2019	11,227	3.590	131	42	134	6.9	7.2	8.4	7.5	8.6	12.8	-4.7	-14.5	
	2018	5,970	4.000	115	57	104	9.0	8.3	9.4	8.9	9.9	14.7	9.5	-12.2	
	2017	11,653	3.437	104	68	106	7.4	7.3	7.9	7.5	8.4	12.0	0.6	-6.9	
	2016	14,435	3.116	94	78	102	6.7	6.7	8.1	7.2	8.0	11.2	0.1	-18.1	
	2015	10,078	3.315	80	93	81	7.9	8.2	8.8	8.3	8.9	12.0	-2.8	-7.2	
	2014	4,702	3.582	70	104	65	9.7	9.1	10.0	9.6	10.2	13.1	7.1	-9.5	
	2013	10,610	3.060	57	117	59	9.1	9.5	9.8	9.5	9.9	12.6	-3.7	-3.8	
	2012	7,195	3.198	48	127	48	10.5	11.4	11.5	11.1	11.5	14.1	-8.2	-1.1	
	2011	2,274	3.837	36	139	35	13.3	15.2	14.2	14.3	14.2	16.6	-13.0	7.1	
2010	1,071	4.180	27	149	26	18.2	19.2	18.1	18.5	17.7	19.4	-5.5	6.7		
2009	252	4.629	16	162	15	24.0	23.6	20.6	22.6	21.7	23.7	2.2	16.5		
2008	10	5.745	6	174	3	61.0	53.7	48.0	53.1	42.2	35.7	21.5	17.4		

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 15, by Issue Year

Agency	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
GNMA I	2017	1	3.500	112	68	98	0.0	0.0	0.0	0.0	1.6	3.7	4.5	4.8
	2016	2	3.000	100	76	74	0.5	0.2	0.2	0.3	0.3	0.5	111.9	1.9
	2015	9	3.412	92	94	62	7.4	1.1	1.2	3.3	2.0	3.8	571.1	-1.3
	2014	48	3.818	81	105	47	6.9	10.3	10.1	9.1	9.7	10.7	-34.4	2.5
	2013	282	3.319	65	117	44	11.8	10.7	8.8	10.4	10.8	12.7	10.3	23.4
	2012	503	3.388	47	128	39	12.1	13.8	12.9	12.9	13.1	15.2	-13.0	7.6
	2011	273	4.001	36	140	30	13.6	15.0	14.5	14.4	14.4	16.6	-10.1	4.3
	2010	194	4.473	27	151	20	17.4	16.6	18.4	17.5	17.2	19.4	5.2	-10.6
	2009	83	4.743	17	161	13	21.1	26.3	20.6	22.7	22.0	22.7	-22.1	31.7
	2008	5	5.932	19	173	5	31.9	36.0	34.7	34.4	31.3	30.1	-13.7	4.4
	2007	0	6.294	48	188	23	0.3	0.5	0.4	0.4	31.1	30.4	-38.5	17.2
	2006	1	6.691	36	202	18	1.2	1.1	0.9	1.1	12.3	15.9	7.3	33.1
2005	3	6.113	25	213	11	25.6	14.0	12.2	17.3	16.2	14.7	95.2	15.4	
≤ 2004	3	6.239	16	225	5	20.5	42.9	29.7	32.0	26.7	21.5	-58.5	57.8	
GNMA II	2023	76	5.255	176	4	186	2.3	2.2		2.3	2.3	2.3	6.7	
	2022	2,533	3.138	167	10	166	6.1	6.0	7.0	6.4	6.2	5.4	2.6	-15.5
	2021	5,732	2.440	154	19	153	6.5	6.6	7.5	6.9	7.9	9.8	-1.9	-11.3
	2020	1,845	2.933	141	31	140	8.1	6.9	7.5	7.5	8.8	12.6	18.4	-9.1
	2019	858	3.869	130	43	98	9.3	9.6	9.8	9.6	11.9	16.7	-3.5	-2.1
	2018	1,040	3.879	117	56	88	10.4	8.9	10.4	9.9	11.4	15.6	17.6	-15.0
	2017	1,802	3.403	105	68	81	9.7	7.9	10.6	9.4	10.8	14.6	23.5	-26.1
	2016	1,878	3.137	94	79	76	9.0	9.3	9.5	9.3	10.0	13.2	-3.5	-2.2
	2015	1,235	3.303	82	91	64	10.4	10.0	10.3	10.2	10.9	14.0	4.3	-3.4
	2014	713	3.577	73	103	53	8.9	10.9	10.8	10.2	11.1	13.8	-19.1	1.3
	2013	1,146	3.104	58	117	49	10.1	11.2	10.2	10.6	11.2	13.6	-10.3	10.3
	2012	885	3.240	48	127	45	12.2	11.5	11.8	11.9	12.3	15.0	6.4	-2.6
	2011	276	3.942	40	139	33	11.5	16.1	14.6	14.1	15.1	16.7	-30.5	11.0
	2010	71	4.378	36	150	25	16.9	19.7	14.3	16.9	15.6	16.5	-15.6	42.1
	2009	20	4.737	17	161	14	28.1	21.1	24.1	24.4	22.3	22.2	38.3	-13.9
	2008	1	5.986	8	172	5	35.5	41.2	34.8	37.2	31.2	30.6	-16.9	23.3
2007	0	6.573	51	186	27	3.9	1.1	1.0	2.0	11.9	26.3	262.3	4.1	
2005	0	5.934	24	213	13	31.4	39.5	14.6	28.9	16.5	17.1	-24.7	214.5	
≤ 2004	1	6.320	16	222	7	30.4	10.7	15.1	18.8	24.5	19.7	215.4	-30.4	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FNMA, Fixed 15, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.0	2021	2,498	1.885	156	21	299	1.7	2.3	2.2	2.1	2.4	3.1	-28.0	3.7
1.5	2022	7,170	2.179	166	12	275	2.1	2.0	2.4	2.2	2.5	2.9	8.7	-19.1
	2021	68,150	2.120	158	19	254	2.8	2.8	3.0	2.8	3.2	4.3	1.3	-7.7
	2020	20,060	2.243	148	28	240	3.1	3.3	3.3	3.2	3.8	5.4	-3.5	-1.5
2.0	2022	15,576	2.607	166	12	213	3.6	3.5	3.7	3.6	3.8	3.9	3.8	-4.1
	2021	87,731	2.517	156	20	186	3.9	3.7	4.3	4.0	4.5	5.8	6.2	-15.0
	2020	59,322	2.642	145	30	193	4.2	4.1	4.8	4.4	5.1	7.1	2.2	-14.4
	2016	2,047	2.604	96	77	130	5.4	5.4	6.0	5.6	5.9	8.6	1.5	-10.6
	2013	2,464	2.612	57	118	74	6.9	7.6	7.9	7.5	7.9	10.1	-9.6	-2.7
2.5	2022	9,263	3.035	166	11	192	3.8	3.5	3.8	3.7	4.2	4.4	8.3	-8.1
	2021	13,355	2.940	155	21	144	4.7	4.4	5.1	4.8	5.6	7.1	7.4	-13.7
	2020	23,794	3.061	141	32	152	5.0	5.1	6.0	5.4	6.3	9.0	-0.7	-15.3
	2019	6,335	3.134	131	41	172	6.4	6.3	6.7	6.5	7.4	10.6	1.7	-5.8
	2017	3,750	2.964	103	69	128	6.1	5.8	7.0	6.3	7.2	10.2	5.9	-18.6
	2016	14,334	2.947	94	78	115	6.8	6.6	7.3	6.9	7.6	10.3	2.6	-9.8
	2015	5,299	3.041	81	92	99	6.9	7.8	7.9	7.5	8.1	11.0	-12.8	-1.2
	2014	839	3.139	72	102	91	6.6	7.5	8.1	7.4	8.7	11.5	-12.0	-8.1
	2013	9,275	2.930	57	118	63	8.8	9.2	9.6	9.2	9.6	11.8	-4.0	-5.0
2012	7,716	2.991	50	125	60	9.5	10.0	10.1	9.9	10.2	12.5	-5.6	-1.6	
3.0	2022	5,475	3.626	169	9	188	4.8	4.9	5.2	5.0	5.1	5.5	-1.1	-5.9
	2020	4,135	3.574	138	35	118	6.9	6.8	8.2	7.3	8.2	11.7	1.0	-17.6
	2019	4,325	3.591	130	42	133	6.9	7.8	9.3	8.0	8.8	12.6	-12.7	-16.2
	2018	2,464	3.534	112	60	121	8.3	8.2	8.3	8.3	9.3	12.9	0.9	-1.3
	2017	9,173	3.433	105	67	108	7.5	7.6	8.2	7.8	8.8	12.1	-0.5	-7.5
	2016	4,460	3.486	92	81	79	7.5	8.2	8.0	7.9	8.6	11.8	-9.6	2.9
	2015	5,928	3.487	82	91	78	8.4	8.1	8.9	8.5	9.1	12.0	3.0	-9.1
	2014	4,506	3.528	70	104	69	8.6	9.4	10.1	9.4	9.9	12.5	-8.8	-7.1
	2013	3,465	3.517	60	114	53	10.3	9.6	10.9	10.3	10.8	13.2	7.4	-11.9
2012	4,104	3.449	46	129	46	11.1	11.9	11.8	11.6	11.9	14.5	-6.9	0.8	
2011	1,718	3.446	40	136	45	12.2	11.7	11.5	11.8	12.3	14.6	4.8	2.1	
3.5	2022	4,272	4.147	170	7	212	5.3	5.7	7.0	6.0	6.8	7.6	-7.2	-18.9
	2019	3,373	4.087	127	44	108	8.4	7.9	9.2	8.5	9.7	14.4	7.6	-15.1
	2018	3,087	4.046	115	57	102	8.8	9.1	10.1	9.3	9.8	14.1	-3.8	-9.9
	2017	2,450	3.995	104	68	73	8.3	8.6	9.2	8.7	9.9	13.3	-3.4	-6.3
	2014	1,829	4.042	67	107	50	10.3	11.2	10.7	10.7	11.4	13.9	-8.1	5.1
	2013	1,105	4.016	61	113	46	9.2	11.4	10.3	10.3	11.1	13.8	-20.8	11.1
	2011	1,534	3.905	36	140	34	13.9	15.3	15.4	14.9	14.9	16.8	-9.3	-1.2
	2010	896	3.906	29	148	30	16.2	16.3	15.5	16.0	16.1	18.0	-1.1	6.1
4.0	2022	2,878	4.687	171	6	199	7.8	6.5	7.8	7.4	8.8	9.4	22.0	-17.7
	2018	1,804	4.570	117	54	81	8.5	8.3	10.0	9.0	10.9	15.4	2.6	-17.9
4.5	2022	1,952	5.047	172	5	184	7.1	10.1	9.8	9.0	10.1	10.1	-30.1	2.5
5.0	2022	1,162	5.567	173	3	181	10.4	13.1	11.2	11.6	11.5	11.6	-21.9	17.5

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FHLMC, Fixed 15, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.0	2021	4,248	1.897	156	21	289	1.7	2.1	2.6	2.2	2.7	3.9	-18.5	-17.7
1.5	2022	6,911	2.236	166	12	274	2.7	2.7	2.3	2.6	2.6	3.2	-2.3	19.4
	2021	61,741	2.217	157	20	248	3.2	2.9	3.3	3.1	3.5	4.7	13.5	-13.8
	2020	28,055	2.330	148	28	229	3.6	3.4	4.2	3.7	4.3	6.0	4.7	-18.4
2.0	2022	12,322	2.637	166	12	212	3.0	3.3	3.4	3.2	3.6	3.9	-6.4	-5.1
	2021	67,159	2.588	156	20	179	3.8	3.7	4.2	3.9	4.5	5.9	1.9	-10.8
	2020	47,420	2.714	144	30	184	4.3	4.3	4.9	4.5	5.2	7.5	1.2	-12.2
	2016	999	2.604	96	77	122	4.9	3.8	7.6	5.5	6.9	9.9	31.0	-51.0
	2013	1,553	2.612	57	118	70	7.7	7.5	7.9	7.7	8.2	10.9	2.6	-4.5
2.5	2022	6,026	3.067	167	11	184	4.7	3.6	4.1	4.1	4.5	4.6	31.9	-13.5
	2021	3,841	3.123	155	19	132	5.5	4.9	6.6	5.6	6.3	8.4	12.3	-26.2
	2020	13,398	3.188	140	33	152	5.9	5.6	6.1	5.8	6.7	9.9	6.1	-9.4
	2019	5,012	3.212	133	40	162	6.1	6.1	8.0	6.8	7.5	11.3	-1.0	-24.0
	2017	3,682	3.023	103	70	123	6.3	6.9	6.8	6.7	7.6	10.9	-9.4	2.1
	2016	9,900	2.992	95	78	113	6.4	6.5	7.9	6.9	7.6	10.8	-1.2	-19.1
	2015	4,916	3.059	79	94	95	7.7	7.0	8.5	7.7	8.5	11.7	11.3	-18.7
	2014	790	3.163	71	102	82	9.0	7.7	9.8	8.8	9.6	12.5	17.8	-21.6
	2013	6,758	2.961	57	118	61	9.2	9.8	10.1	9.7	9.9	12.5	-6.0	-2.8
3.0	2022	4,887	3.607	169	9	195	4.2	3.8	4.3	4.1	4.6	4.9	11.1	-11.3
	2020	2,309	3.705	139	35	127	7.1	6.6	8.5	7.4	8.0	12.2	6.4	-22.5
	2019	3,427	3.693	130	42	134	6.9	7.4	7.9	7.4	8.7	13.5	-6.5	-6.6
	2018	2,125	3.620	113	59	119	7.9	7.9	10.3	8.7	9.6	13.4	0.2	-24.3
	2017	6,454	3.549	105	67	106	7.9	7.6	8.5	8.0	8.7	12.4	3.9	-11.3
	2016	3,198	3.555	92	81	80	7.7	7.9	8.6	8.1	9.0	12.3	-2.5	-8.5
	2015	4,562	3.524	81	92	76	8.0	9.2	8.8	8.7	9.2	12.2	-13.1	4.1
	2014	3,023	3.554	70	104	68	9.3	9.0	10.0	9.5	10.1	12.9	3.1	-9.9
	2013	1,822	3.541	60	114	51	9.5	9.7	10.4	9.9	10.8	13.8	-1.9	-6.8
	2012	2,424	3.475	44	131	43	12.1	12.7	12.6	12.5	12.9	15.4	-5.0	1.2
3.5	2022	3,953	4.223	170	7	208	5.4	6.6	6.2	6.1	6.8	7.5	-17.5	5.5
	2019	1,795	4.194	127	44	100	9.1	9.4	9.6	9.4	11.0	15.6	-3.1	-2.2
	2018	2,530	4.139	116	56	102	9.9	8.9	8.7	9.1	9.9	15.3	11.9	2.1
	2017	1,314	4.090	104	68	75	8.2	7.6	7.8	7.9	9.4	13.1	7.0	-2.2
	2014	842	4.053	69	105	48	11.8	10.7	10.3	10.9	11.1	14.0	11.2	3.2
	2013	456	4.051	61	113	43	10.8	10.1	10.8	10.6	11.6	14.3	7.0	-7.0
	2011	809	3.956	35	141	32	13.7	15.3	15.5	14.9	14.9	17.1	-11.3	-1.4
	2010	578	3.947	29	147	30	16.8	17.4	17.7	17.3	16.6	18.3	-3.7	-2.0
4.0	2022	3,309	4.767	171	6	200	6.4	8.6	7.7	7.6	9.1	9.7	-25.7	11.1
	2018	1,001	4.646	117	53	82	9.9	8.4	9.6	9.3	10.9	16.5	18.9	-13.3
4.5	2022	1,686	5.176	172	5	193	10.5	10.8	11.8	11.0	12.0	12.3	-3.0	-8.5
5.0	2022	854	5.696	173	3	187	11.1	10.8	14.8	12.3	12.3	12.5	2.7	-28.6

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

GNMA I, Fixed 15, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
2.5	2016	2	3.000	100	76	74	0.5	0.2	0.2	0.3	0.3	0.5	111.9	1.9
	2015	5	3.000	83	93	64	13.4	1.8	1.7	5.8	3.5	4.1	694.2	3.2
	2013	147	3.000	56	118	46	12.4	12.6	9.6	11.5	12.4	14.2	-1.5	32.4
	2012	151	3.000	48	126	45	10.6	14.5	12.0	12.4	13.0	14.2	-28.4	22.0
3.0	2017	1	3.500	112	68	98	0.0	0.0	0.0	0.0	1.6	3.7	4.5	4.8
	2015	3	3.500	84	95	59	0.4	0.4	0.7	0.5	0.5	5.1	3.7	-37.0
	2014	21	3.500	68	105	51	4.7	16.7	8.8	10.2	12.7	13.9	-73.8	98.8
	2013	79	3.500	67	117	43	13.1	7.7	9.4	10.0	9.7	12.0	74.8	-18.7
	2012	312	3.500	45	129	38	13.2	13.6	13.2	13.3	13.3	15.8	-3.0	3.1
	2011	70	3.500	39	136	37	10.4	14.7	16.0	13.8	13.7	15.5	-30.5	-9.1
3.5	2014	7	4.000	65	107	40	15.0	11.9	17.2	14.7	14.7	14.1	27.5	-32.6
	2013	38	4.000	85	116	37	8.5	12.5	6.8	9.3	9.1	9.7	-33.0	90.3
	2012	36	4.000	63	129	33	9.6	12.8	14.2	12.3	12.1	13.3	-26.6	-10.4
	2011	132	4.000	35	141	30	15.9	14.8	12.5	14.3	14.3	16.8	8.1	19.9
4.0	2011	68	4.500	36	141	26	13.0	16.4	17.0	15.5	15.4	17.3	-22.6	-3.8
	2010	126	4.500	26	152	20	18.4	17.9	19.0	18.4	17.6	19.7	3.1	-6.4

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

GNMA II, Fixed 15, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.5	2022	223	1.969	163	13	221	4.2	4.2	12.0	6.9	6.2	5.3	0.3	-66.4
	2021	702	1.910	157	18	212	6.1	4.0	5.4	5.2	5.7	7.0	52.3	-25.6
2.0	2022	756	2.387	165	12	175	7.3	7.2	6.5	7.0	6.7	5.5	0.2	12.3
	2021	3,721	2.361	154	19	157	6.0	6.5	7.6	6.7	7.9	9.9	-7.7	-14.8
	2020	514	2.420	141	28	173	9.2	5.8	7.6	7.6	8.1	11.0	60.6	-23.9
2.5	2022	601	2.896	166	11	156	6.6	5.1	8.2	6.6	7.1	5.8	29.3	-38.9
	2021	1,177	2.879	154	20	129	8.3	8.7	8.2	8.4	9.2	10.9	-4.4	6.4
	2020	867	2.901	141	31	144	7.1	6.4	6.2	6.6	8.3	12.5	11.3	4.7
	2017	551	2.924	103	69	99	9.3	6.8	11.2	9.1	10.1	13.4	37.8	-40.2
	2016	1,059	2.911	94	78	87	8.6	9.5	9.0	9.1	9.5	12.7	-9.6	5.7
	2015	406	2.936	80	92	82	11.0	9.8	11.2	10.7	10.8	14.2	12.4	-12.8
	2013	546	2.855	56	118	53	10.2	10.7	9.7	10.2	10.8	13.6	-4.4	10.7
2012	301	2.935	49	126	49	12.3	11.4	11.5	11.7	11.8	14.7	8.7	-1.1	
3.0	2022	294	3.447	168	10	150	9.9	5.8	6.9	7.5	6.5	5.9	76.2	-16.9
	2021	103	3.402	147	26	100	6.6	6.6	10.4	7.9	9.3	12.4	1.0	-37.7
	2020	355	3.444	138	34	116	6.8	9.9	8.7	8.5	10.4	14.0	-32.3	15.0
	2019	289	3.479	132	41	113	8.6	11.1	11.1	10.3	11.5	15.8	-22.9	-0.6
	2018	197	3.452	114	58	96	8.3	7.1	9.6	8.4	10.4	14.3	17.1	-27.1
	2017	746	3.447	105	67	79	8.5	8.6	10.1	9.1	10.9	15.0	-0.8	-15.0
	2016	672	3.419	93	80	64	9.3	9.2	10.7	9.8	10.4	13.8	1.2	-13.8
	2015	679	3.412	82	91	59	9.8	10.1	9.6	9.8	11.1	14.0	-2.9	4.9
	2014	380	3.412	71	102	57	8.5	10.6	11.2	10.1	11.2	13.8	-20.7	-5.7
	2013	373	3.355	58	116	45	11.0	11.9	11.0	11.3	11.8	14.1	-8.2	8.8
2012	482	3.345	46	128	43	12.8	11.4	12.1	12.1	12.8	15.6	13.6	-6.6	
2011	55	3.415	40	135	40	13.8	11.8	12.6	12.7	14.7	15.5	17.8	-6.4	
3.5	2022	237	3.949	170	7	161	4.1	6.2	6.1	5.5	4.9	4.5	-34.2	2.1
	2020	88	3.921	139	35	99	13.9	6.3	13.8	11.4	10.2	15.2	128.9	-55.9
	2019	327	3.975	129	44	96	10.3	9.1	10.0	9.8	12.9	17.8	13.8	-9.6
	2018	643	3.983	118	55	86	12.0	9.4	10.6	10.7	12.0	16.4	28.8	-11.3
	2017	461	3.929	107	67	68	12.1	8.5	10.3	10.3	11.4	15.1	45.6	-18.6
	2016	100	3.910	95	81	56	12.5	7.1	7.8	9.2	11.8	14.1	82.2	-10.0
	2015	131	3.883	89	91	53	10.3	9.3	10.4	10.0	9.8	13.6	11.6	-10.7
	2014	226	3.852	70	104	45	10.7	11.7	10.5	10.9	11.6	14.2	-8.4	11.9
	2013	120	3.851	66	113	42	7.4	12.6	9.8	10.0	10.9	12.7	-42.9	30.2
2012	80	3.855	56	130	38	9.3	13.3	12.9	11.9	12.4	13.6	-31.0	3.2	
2011	121	3.857	38	139	34	12.2	16.7	17.1	15.5	15.7	17.4	-28.5	-2.7	
4.0	2022	230	4.478	171	7	165	2.2	6.8	2.0	3.7	3.7	4.2	-69.2	248.9
	2019	183	4.541	128	46	78	9.7	9.9	8.3	9.3	11.8	17.2	-1.7	19.8
	2018	130	4.474	123	53	76	5.2	11.9	9.7	9.0	11.0	15.6	-57.8	24.5
	2011	86	4.314	40	141	30	9.9	17.5	12.3	13.3	15.1	16.6	-45.9	46.7
	2010	35	4.366	38	150	26	17.1	20.1	13.9	17.0	15.3	16.4	-16.2	48.6
4.5	2022	135	4.936	174	5	165	4.9	6.2	9.1	6.8	4.8	5.4	-20.7	-33.0

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 10, by Coupon

Agency	Coupon	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
FNMA	≤ 1.5	12,609	2.197	97	19	163	4.5	4.6	5.4	4.8	5.2	6.2	-2.5	-14.4
	2.0	7,114	2.613	91	23	117	6.4	6.7	7.5	6.9	7.2	8.8	-3.7	-11.3
	2.5	3,186	3.035	64	51	61	11.4	12.1	11.9	11.8	12.2	14.8	-6.0	2.3
	3.0	1,580	3.549	62	53	50	10.9	12.4	13.3	12.2	13.2	16.3	-12.8	-7.3
	3.5	736	4.075	69	46	56	11.8	13.0	13.7	12.8	13.6	16.8	-10.1	-5.6
	4.0	270	4.673	89	27	74	14.4	16.6	12.9	14.7	14.9	16.5	-14.4	31.5
	4.5	53	5.166	111	6	111	11.9	12.1	11.4	11.8	15.0	15.5	-2.0	6.7
	5.0	25	5.659	116	2	120	15.6	22.5	20.4	19.4	16.6	16.6	-33.4	11.9
	5.5	9	6.345	116	1	122	10.2	7.5	75.3	24.7	24.7	24.7	38.3	-94.1
≥ 6.0	2	6.650	117	0	117	15.8			15.8	15.8	15.8			
FHLMC	≤ 1.5	6,770	2.199	97	19	170	4.7	4.5	5.7	4.9	5.3	6.5	4.4	-22.3
	2.0	2,544	2.697	94	22	125	6.3	5.8	6.3	6.1	6.7	8.3	8.1	-8.0
	2.5	841	3.139	70	48	56	8.9	10.3	10.7	10.0	10.6	14.1	-13.6	-4.5
	3.0	413	3.654	72	46	49	10.1	10.4	12.7	11.1	12.1	15.3	-3.5	-18.5
	3.5	212	4.184	81	39	54	11.5	10.7	12.3	11.5	11.6	14.1	7.2	-13.2
	4.0	133	4.799	101	18	79	9.0	7.6	7.8	8.1	9.6	11.9	18.6	-1.7
	4.5	48	5.258	112	6	117	11.6	13.0	8.2	11.0	11.1	13.7	-10.7	61.2
	5.0	25	5.766	113	6	105	6.3	21.6	15.5	13.8	13.7	13.3	-73.1	43.5
	5.5	14	6.376	115	2	123	49.7	9.8	2.7	26.7	26.6	26.3	549.9	270.5
≥ 6.0	4	6.947	118	3	67	2.0	1.5	1.2	1.7	2.5	7.3	31.7	28.8	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

Fixed 10, by Issue Year

Agency	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
FNMA	2023	31	5.572	117	1	154	20.8	5.8		15.7	15.7	15.7	290.1	
	2022	3,563	2.899	106	11	149	5.8	5.9	6.6	6.1	6.2	6.1	-1.1	-12.0
	2021	13,830	2.290	96	19	150	4.9	5.1	5.8	5.3	5.7	6.7	-2.7	-12.7
	2020	4,533	2.663	84	30	131	6.8	7.5	7.5	7.3	7.8	10.1	-9.1	-0.7
	2019	611	3.562	71	42	88	11.2	12.5	12.2	12.0	12.2	15.6	-10.6	2.7
	2018	497	3.884	57	57	61	10.5	13.0	13.2	12.3	13.5	16.4	-20.0	-1.3
	2017	845	3.295	47	68	59	11.3	11.8	13.4	12.2	13.2	15.8	-4.0	-12.6
	2016	962	2.990	38	78	51	13.0	13.3	13.9	13.4	13.7	16.0	-2.8	-4.5
	2015	435	3.197	26	91	31	16.1	17.8	17.3	17.1	16.9	19.4	-10.2	3.2
	2014	185	3.370	16	103	17	22.9	24.7	23.9	23.9	22.4	24.4	-8.4	4.2
2013	91	3.119	6	113	6	45.0	43.3	42.4	43.4	36.6	32.3	5.4	2.5	
FHLMC	2023	31	5.871	117	1	137	31.3	23.6		29.1	29.1	29.1	38.8	
	2022	1,846	2.929	106	11	151	4.5	5.8	5.9	5.4	5.3	5.6	-22.7	-1.3
	2021	6,477	2.281	97	19	158	4.9	4.5	5.9	5.1	5.6	6.8	9.8	-24.3
	2020	1,855	2.622	85	31	145	6.7	6.1	6.6	6.5	6.9	9.5	8.5	-7.3
	2019	177	3.541	72	43	95	8.8	4.2	11.5	8.2	10.4	13.8	111.4	-64.4
	2018	75	3.967	57	63	60	9.1	11.8	13.7	11.6	11.9	17.0	-23.7	-14.9
	2017	141	3.438	47	72	51	10.0	8.2	9.9	9.4	11.4	14.7	22.2	-17.5
	2016	183	3.081	38	80	44	13.1	11.9	10.9	12.0	12.3	15.8	10.8	9.8
	2015	142	3.357	26	97	27	16.3	19.9	17.8	18.0	18.2	19.7	-19.7	13.4
	2014	52	3.497	16	103	15	21.6	25.9	23.2	23.6	22.7	24.3	-18.7	13.3
	2013	24	3.300	6	114	5	49.4	46.9	41.7	45.4	39.0	33.2	7.3	16.8
	2012	0	6.000	7	173	2	0.3	0.3	0.2	0.3	93.8	59.8	32.9	26.8
	2011	0	5.739	29	151	10	3.9	3.2	2.7	3.2	6.2	5.6	22.8	20.1
2010	0	5.604	11	169	10	0.2	0.1	0.1	0.1	0.1	2.1	31.7	23.9	
2009	0	6.375	9	171	3	1.4	1.1	0.9	1.1	0.9	11.4	25.0	21.5	

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FNMA, Fixed 10, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.5	2022	1,261	2.250	105	12	176	4.4	4.2	5.0	4.5	4.5	4.9	4.4	-16.0
	2021	10,480	2.185	97	19	163	4.4	4.7	5.3	4.8	5.2	6.2	-4.7	-12.7
	2020	867	2.264	87	27	154	5.4	4.8	6.6	5.6	6.4	8.2	14.0	-28.5
2.0	2022	1,159	2.701	105	11	142	5.1	4.8	6.8	5.6	5.3	5.6	5.2	-29.6
	2021	3,287	2.607	94	20	122	6.4	6.3	7.1	6.6	7.0	8.2	2.5	-11.5
	2020	2,471	2.578	85	29	137	6.3	7.2	7.1	6.9	7.5	9.8	-12.5	1.1
	2019	15	2.738	75	41	126	8.4	3.4	4.1	5.3	6.4	12.9	155.8	-17.9
	2016	115	2.573	39	77	67	8.2	7.6	12.6	9.5	10.1	12.0	7.3	-40.6
	2015	13	2.741	25	93	38	10.2	19.7	12.2	14.2	13.4	19.2	-50.6	67.8
2.5	2022	453	3.199	106	10	133	7.2	7.1	7.5	7.3	6.9	7.0	1.3	-5.9
	2021	56	3.098	95	21	69	6.2	8.7	13.6	9.6	9.1	9.7	-29.6	-37.4
	2020	1,005	3.030	81	33	116	9.1	10.0	8.3	9.1	9.3	11.6	-9.8	22.0
	2019	220	3.058	74	40	115	8.9	11.6	8.3	9.6	9.7	13.5	-24.6	41.1
	2018	28	3.055	54	61	83	5.6	5.4	8.7	6.6	9.5	12.4	3.6	-39.3
	2017	314	2.966	46	69	69	11.6	9.7	11.6	11.0	12.9	14.9	20.1	-16.9
	2016	677	2.925	38	78	54	13.5	13.8	14.2	13.9	14.0	16.2	-2.3	-2.3
	2015	291	3.041	26	91	35	15.9	16.8	16.9	16.5	16.3	18.7	-5.9	-1.0
3.0	2022	315	3.754	108	9	131	6.6	7.1	6.1	6.6	7.8	7.8	-7.6	17.4
	2020	172	3.587	78	36	84	7.1	9.9	12.0	9.7	10.5	14.2	-29.5	-18.3
	2019	184	3.578	71	42	92	10.1	9.8	13.9	11.3	13.5	16.8	2.7	-30.5
	2018	142	3.475	55	60	68	9.5	13.1	11.9	11.5	12.7	15.7	-28.9	10.6
	2017	401	3.397	48	67	57	10.6	12.5	14.0	12.4	13.2	16.2	-16.3	-11.2
	2016	157	3.484	36	80	37	14.1	14.0	13.9	14.0	14.7	17.8	0.8	0.6
	2015	121	3.546	26	91	26	16.9	19.6	18.7	18.4	18.4	20.9	-14.9	5.0
	2014	60	3.608	15	103	14	24.4	23.5	27.3	25.2	22.9	25.3	4.7	-15.9
3.5	2022	173	4.257	109	7	142	6.3	5.6	9.3	7.1	10.5	10.9	12.2	-40.1
	2020	18	4.091	78	36	58	7.7	3.7	16.0	9.4	10.3	17.3	111.3	-78.0
	2019	153	4.057	68	45	73	15.9	17.3	15.7	16.3	14.8	17.3	-8.8	11.4
	2018	240	3.996	57	57	59	11.0	12.0	13.1	12.1	13.0	16.7	-8.9	-8.4
	2017	112	3.961	47	67	43	13.2	15.4	15.9	14.9	14.8	17.6	-15.5	-3.2
	2016	14	4.081	35	81	26	11.0	25.0	12.7	16.5	16.0	20.6	-59.2	111.1
4.0	2022	141	4.743	111	6	140	15.3	17.3	9.6	14.1	14.2	14.8	-12.9	87.2
	2019	35	4.729	68	47	46	11.6	11.4	14.9	12.7	11.1	14.8	1.9	-24.8
	2018	86	4.527	60	54	51	12.5	17.8	16.8	15.8	17.1	18.1	-31.9	6.5
4.5	2022	42	5.131	112	4	114	13.4	11.2	11.8	12.1	14.8	14.4	20.9	-5.1
5.0	2023	8	5.847	117	1	133	37.7	4.9		24.4	24.4	24.4	833.5	
	2022	17	5.574	115	3	116	3.4	28.1	20.4	18.0	15.0	15.0	-89.2	44.2

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

FHLMC, Fixed 10, Largest Cohorts

Coupon	Issue Year	Balance (\$mm)	WAC	WAM	WALA	ALS (\$k)	CPR						%Δ	
							Feb	Jan	Dec	3M	6M	12M	Jan→Feb	Dec→Jan
1.5	2022	708	2.191	105	12	183	4.3	3.5	3.6	3.8	3.8	4.4	25.0	-5.1
	2021	5,204	2.175	98	19	168	4.5	4.3	5.8	4.9	5.3	6.5	3.4	-26.2
	2020	857	2.354	88	27	171	5.9	6.0	6.5	6.1	6.1	8.2	-1.2	-8.5
2.0	2022	519	2.678	106	11	146	3.2	6.3	6.4	5.3	5.2	5.4	-50.5	-0.4
	2021	1,215	2.687	96	20	127	6.3	5.0	6.1	5.8	6.5	7.9	26.7	-18.1
	2020	760	2.724	85	31	147	7.5	6.0	5.8	6.4	7.2	9.6	24.5	3.8
	2019	8	2.886	76	40	142	4.2	2.4	12.7	6.6	17.2	21.4	75.9	-82.0
	2016	22	2.665	38	79	54	15.5	6.0	6.7	9.4	9.5	13.7	169.5	-10.7
	2015	9	2.827	25	93	34	10.2	9.6	7.1	8.9	10.9	14.7	6.8	37.6
2.5	2022	188	3.159	107	10	131	2.2	7.6	4.3	4.7	4.8	5.8	-71.3	77.7
	2021	58	3.274	97	19	98	12.2	5.0	3.6	7.0	7.2	8.3	151.7	41.1
	2020	199	3.156	79	40	101	6.5	6.2	9.2	7.3	8.4	12.5	5.4	-34.4
	2019	90	3.196	74	41	115	6.9	4.4	12.6	8.1	8.8	12.2	58.1	-66.5
	2018	5	3.141	47	82	46	7.1	10.2	49.6	25.8	22.6	19.3	-32.1	-83.8
	2017	53	3.032	45	75	57	7.9	9.3	9.9	9.0	10.9	14.9	-15.9	-6.1
	2016	129	2.991	38	79	47	11.7	11.6	11.9	11.8	12.0	15.8	1.1	-2.2
	2015	84	3.152	26	92	29	16.6	22.0	16.5	18.4	18.5	20.2	-26.6	37.3
3.0	2022	162	3.690	108	9	126	6.0	5.8	10.2	7.3	6.9	8.0	3.5	-44.6
	2020	32	3.627	71	61	67	7.0	10.2	7.9	8.4	10.7	17.5	-32.2	30.2
	2019	50	3.761	72	43	95	10.7	4.6	10.5	8.6	12.4	15.5	142.9	-57.6
	2018	21	3.650	55	65	74	5.4	14.7	11.5	10.7	10.4	17.2	-65.2	30.7
	2017	62	3.544	49	68	55	9.4	7.5	10.9	9.3	11.2	14.0	27.2	-32.6
	2016	25	3.617	36	84	35	17.9	16.7	10.4	14.9	16.7	18.2	7.7	66.2
	2015	34	3.566	27	91	25	16.9	19.4	20.4	19.0	18.8	19.8	-14.3	-5.2
	2014	22	3.659	15	103	13	23.2	29.3	26.3	26.4	26.2	26.2	-23.8	13.4
3.5	2022	103	4.227	110	7	131	7.7	11.1	11.9	10.3	9.8	9.5	-32.0	-7.6
	2020	4	4.277	77	46	62	18.1	26.4	30.7	25.4	16.3	18.6	-34.6	-16.4
	2019	23	4.232	67	48	66	14.0	3.4	10.7	9.5	10.6	14.1	326.8	-69.0
	2018	37	4.142	58	59	61	12.7	10.6	10.2	11.1	11.4	16.7	20.7	5.0
	2017	23	4.077	48	70	38	16.6	6.9	6.4	10.0	13.1	14.6	151.6	8.4
	2016	6	4.072	36	94	21	13.0	18.1	8.0	13.1	11.0	12.8	-30.0	138.6
4.0	2022	109	4.802	111	5	138	8.9	7.0	6.7	7.5	8.6	8.5	28.4	4.8
	2019	6	4.867	67	49	47	5.3	4.2	4.3	4.6	8.9	11.6	25.4	-2.9
	2018	9	4.787	62	54	46	4.1	6.6	7.9	6.2	11.4	18.4	-39.3	-16.4
4.5	2022	36	5.237	113	4	120	5.4	13.4	8.5	9.2	9.7	11.8	-61.6	61.4
5.0	2023	13	5.806	117	1	146	3.5	37.5		17.6	17.6	17.6	-92.2	
	2022	11	5.736	114	3	111	9.1	8.1	15.3	10.9	9.8	9.8	12.3	-48.9

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Santander US Capital Markets

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