

UMBS Prepayment Speeds

November 2019

UMBS 10yr

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
FNMA 10yr 2	2,022	0.222	415	2.7	52	65	225,419	↑16.5	14.0	2.5	18%	15.46	14.91	13.42
2016	523	0.530	67	2.6	78	38	256,231	↑14.2	13.4	0.9	6%	13.66	12.72	10.69
2015	79	0.380	41	2.7	64	52	237,933	↑21.2	10.6	10.6	100%	15.75	12.69	11.48
2014	57	0.299	23	2.9	56	60	233,664	↓15.3	20.6	-5.3	-26%	19.35	17.16	13.61
2013	1,084	0.182	210	2.7	39	77	212,600	↑16.8	14.6	2.2	15%	15.81	15.65	14.33
2012	227	0.134	61	2.7	34	83	197,371	↑21.5	13.3	8.2	62%	18.07	17.34	15.81
FNMA 10yr 2.5	9,832	0.236	1545	3.0	61	55	215,766	↑16.5	15.0	1.4	10%	16.07	15.85	14.21
2019	367	0.965	22	3.1	116	2	258,500	↓10.5	11.5	-1.0	-9%	11.14	14.51	-
2017	758	0.629	71	3.0	89	27	239,248	↑14.7	13.1	1.7	13%	14.26	14.30	11.98
2016	2,950	0.506	164	2.9	77	38	224,808	↑15.0	14.3	0.7	5%	14.64	13.88	11.98
2015	1,655	0.350	192	3.0	63	52	215,346	↑15.0	13.5	1.5	11%	14.89	15.28	13.59
2014	940	0.239	192	3.2	52	63	205,727	↑17.6	14.3	3.3	23%	17.40	17.14	15.38
2013	1,397	0.164	357	3.0	39	77	183,029	↑17.4	15.7	1.7	11%	16.56	16.38	15.33
2012	1,670	0.105	493	3.0	31	87	213,173	↑20.5	18.2	2.3	13%	19.42	19.04	17.32
2011	67	0.057	43	3.1	23	95	201,140	↓23.9	24.8	-0.9	-4%	24.75	23.05	20.64
FNMA 10yr 3	6,235	0.161	1382	3.5	67	49	184,538	↑18.8	16.2	2.6	16%	17.67	17.17	15.69
2019	607	0.937	30	3.6	114	4	234,350	↑14.7	12.4	2.3	19%	13.44	12.36	-
2018	358	0.713	36	3.5	96	19	220,972	↑22.4	14.0	8.4	60%	18.03	16.83	13.28
2017	1,573	0.619	97	3.4	88	27	195,855	↑18.0	13.4	4.6	34%	15.98	14.72	12.56
2016	695	0.465	88	3.5	75	39	168,167	↓14.1	16.8	-2.6	-16%	15.25	14.57	13.19
2015	653	0.343	129	3.5	64	50	162,775	↑16.3	15.4	0.9	6%	16.58	16.20	14.93
2014	589	0.227	160	3.6	51	63	150,580	↑18.2	15.5	2.7	17%	16.59	16.73	15.86
2013	510	0.165	241	3.6	42	74	148,794	↑19.2	16.3	2.9	18%	17.84	17.94	16.41
2012	450	0.076	296	3.5	27	90	167,626	↑23.7	19.0	4.7	25%	21.57	20.54	19.01
2011	743	0.044	252	3.5	21	97	197,144	↑24.2	22.4	1.8	8%	23.62	23.08	21.36
2010	57	0.019	53	3.6	12	107	201,181	↑29.4	29.1	0.3	1%	28.73	28.79	26.16
FNMA 10yr 3.5	2,774	0.124	773	4.0	83	32	171,750	↑21.4	19.8	1.6	8%	20.42	19.16	16.99
2019	634	0.883	37	4.1	110	6	197,176	↑19.3	18.3	1.1	6%	17.81	14.96	-
2018	897	0.727	72	4.0	99	16	192,371	↑24.4	21.5	2.9	13%	22.03	19.85	15.47
2017	543	0.611	52	3.9	88	27	144,246	↑16.2	16.1	0.1	1%	17.13	15.92	14.00
2016	78	0.452	31	4.0	75	40	124,278	↑19.6	13.7	5.9	43%	17.13	18.22	15.62
2015	50	0.321	31	4.2	63	51	110,509	↓13.7	21.5	-7.8	-36%	18.54	15.64	14.97
2014	118	0.213	65	4.2	49	64	118,777	↓16.6	19.1	-2.5	-13%	19.53	18.45	16.52
2013	94	0.162	76	4.1	42	73	112,523	↑19.2	17.0	2.2	13%	19.67	18.78	17.55
2012	27	0.072	51	4.1	27	90	115,230	↑27.3	14.9	12.4	83%	21.92	20.75	20.45
2011	188	0.031	175	4.0	17	101	165,230	↑26.4	24.4	1.9	8%	24.96	25.72	23.90
2010	144	0.013	181	3.9	11	108	183,407	↑30.4	27.4	3.0	11%	28.81	29.24	26.88
FNMA 10yr 4	555	0.058	373	4.6	91	25	139,749	↓23.7	24.0	-0.3	-1%	23.23	21.16	18.36
2011	30	0.028	87	4.5	17	102	129,658	↑25.2	23.9	1.3	6%	24.55	24.39	23.82
2010	31	0.006	127	4.4	7	112	154,867	↑36.7	33.0	3.7	11%	33.85	33.23	31.16

*n.m. - Not Meaningful

Source: Bloomberg

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UMBS Prepayment Speeds

November 2019

UMBS 15yr

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
FNMA 15yr 2	17,397	0.474	2113	2.6	117	58	278,687	↑ 9.7	8.9	0.8	9%	9.49	9.62	8.25
2017	70	0.820	27	2.6	149	27	287,105	↓ 3.0	3.8	-0.8	*n.m.	2.93	3.55	3.69
2016	5,873	0.681	342	2.6	138	38	290,327	↑ 9.8	8.2	1.6	19%	9.05	9.06	7.43
2015	684	0.539	175	2.7	121	53	290,021	↑ 9.9	9.4	0.5	5%	9.82	9.59	8.10
2014	108	0.544	38	2.8	112	62	276,059	↑ 17.9	8.8	9.1	103%	11.62	9.95	8.39
2013	5,899	0.380	1017	2.6	96	78	268,618	↑ 10.4	9.4	1.0	10%	10.09	10.25	8.90
2012	3,243	0.342	479	2.6	90	83	248,982	↑ 10.9	10.0	0.9	9%	10.65	10.34	8.97
FNMA 15yr 2.5	142,592	0.467	17155	3.0	124	51	268,498	↑ 11.3	10.5	0.8	8%	11.15	11.08	9.47
2019	20,796	0.975	403	3.2	176	2	306,491	↑ 7.5	6.7	0.8	12%	7.29	6.69	-
2018	613	0.813	82	3.3	155	20	304,254	↓ 9.7	14.2	-4.5	-32%	12.47	11.62	8.78
2017	7,696	0.757	695	3.0	149	27	284,874	↑ 10.6	10.1	0.5	5%	10.36	10.03	8.09
2016	41,466	0.641	3133	2.9	136	38	268,381	↑ 11.4	10.7	0.6	6%	11.26	10.92	9.04
2015	16,294	0.496	2035	3.0	122	52	268,008	↑ 13.3	11.3	1.9	17%	12.24	11.84	9.83
2014	3,956	0.404	1050	3.1	113	60	268,253	↑ 13.3	13.0	0.3	2%	13.21	12.84	10.89
2013	21,896	0.356	4075	2.9	95	78	242,360	↑ 11.2	10.6	0.7	6%	11.20	11.10	9.75
2012	29,268	0.289	5491	3.0	88	86	257,133	↑ 12.6	10.9	1.6	15%	12.01	11.91	10.32
2011	597	0.221	186	3.1	78	96	237,080	↑ 14.9	11.2	3.7	33%	11.99	12.11	11.00
FNMA 15yr 3	133,274	0.427	26175	3.5	129	46	233,976	↑ 14.6	13.9	0.8	5%	14.24	13.48	11.37
2019	19,102	0.942	783	3.7	174	4	272,348	↓ 14.1	14.3	-0.2	-2%	13.88	11.89	-
2018	7,586	0.779	618	3.7	158	17	273,381	↓ 23.1	23.2	-0.1	0%	22.48	19.20	13.82
2017	30,188	0.718	2974	3.4	148	27	243,747	↑ 14.7	13.7	1.0	7%	14.11	13.00	10.53
2016	12,369	0.589	2915	3.5	135	40	202,350	↑ 14.5	13.2	1.3	9%	13.73	13.31	11.31
2015	17,511	0.478	3628	3.5	123	51	219,177	↑ 14.1	13.2	0.9	7%	13.64	13.18	11.26
2014	13,420	0.368	3345	3.5	110	63	222,883	↑ 14.1	12.5	1.7	13%	13.69	13.45	11.74
2013	10,660	0.322	3810	3.5	99	74	208,020	↑ 13.1	12.9	0.2	2%	12.84	12.62	11.32
2012	12,049	0.234	5489	3.5	84	89	209,574	↑ 13.3	12.6	0.7	6%	13.25	13.02	11.63
2011	9,181	0.178	2202	3.4	77	96	240,107	↑ 13.6	12.7	0.9	7%	13.49	13.48	11.91
2010	1,208	0.128	409	3.6	67	107	223,118	↑ 16.2	13.8	2.3	17%	14.79	15.17	13.24
FNMA 15yr 3.5	64,548	0.337	20011	4.0	132	42	198,263	↑ 19.5	17.8	1.7	10%	18.13	16.26	13.30
2019	14,377	0.918	1068	4.1	171	6	221,181	↑ 18.1	16.9	1.1	7%	16.25	13.37	-
2018	15,416	0.765	1738	4.1	160	16	233,920	↑ 29.9	27.2	2.7	10%	27.35	22.94	16.24
2017	8,154	0.697	1994	4.0	146	28	163,718	↑ 16.0	14.1	1.9	14%	15.04	13.87	11.70
2016	1,874	0.568	988	4.0	132	40	132,160	↓ 13.6	14.0	-0.4	-3%	14.08	13.71	12.21
2015	2,522	0.470	1519	4.0	122	51	134,236	↑ 13.9	13.1	0.9	7%	13.50	13.22	12.04
2014	4,771	0.355	2587	4.1	109	64	155,537	↑ 14.0	11.8	2.3	19%	13.04	13.35	12.56
2013	3,711	0.308	2018	4.0	101	73	169,950	↑ 13.9	13.1	0.8	6%	13.57	13.01	11.76
2012	1,668	0.218	2075	4.0	83	90	150,890	↑ 14.3	14.0	0.4	3%	14.09	13.73	12.60
2011	5,797	0.150	3421	3.9	74	99	197,421	↑ 14.9	13.9	1.1	8%	14.66	14.36	12.94
2010	6,177	0.099	2433	3.9	66	108	211,315	↑ 15.9	14.0	1.9	14%	14.95	14.75	13.36
2009	78	0.064	159	4.0	52	123	200,703	↑ 21.4	14.8	6.5	44%	15.48	14.73	14.37
FNMA 15yr 4	20,439	0.128	11623	4.5	118	56	173,751	↑ 20.8	19.1	1.7	9%	19.38	17.53	14.35
2019	2,029	0.932	411	4.7	168	6	159,260	↑ 15.1	11.9	3.2	26%	12.73	10.27	-
2018	8,776	0.791	1260	4.6	160	15	174,584	↑ 27.2	25.3	1.9	8%	24.91	21.14	14.99
2017	558	0.660	186	4.5	145	28	144,652	↓ 16.1	16.6	-0.5	-3%	16.69	15.35	13.38
2016	133	0.342	229	4.7	105	66	88,998	↑ 17.7	16.0	1.7	11%	15.94	16.30	14.62
2015	214	0.323	302	4.6	100	72	102,302	↑ 12.1	11.2	1.0	9%	11.81	12.86	12.53
2014	126	0.195	355	4.5	82	91	120,136	↑ 16.0	12.1	3.9	32%	13.62	15.30	14.14
2013	2,768	0.119	2771	4.4	71	102	171,331	↑ 14.4	13.5	0.8	6%	14.29	14.33	13.26
2012	3,277	0.069	2893	4.4	62	112	183,644	↑ 16.0	14.7	1.3	9%	15.54	15.34	14.30
2011	2,460	0.038	2418	4.5	52	123	192,334	↑ 16.7	15.1	1.6	11%	16.04	16.16	15.30
2010	49	0.022	235	4.6	40	137	196,846	↑ 18.0	15.8	2.2	14%	16.44	16.03	16.04
FNMA 15yr 4.5	3,154	0.035	7958	4.9	74	100	159,309	↑ 17.5	15.4	2.1	14%	16.35	15.99	14.89
2019	378	0.126	953	4.8	71	102	142,080	↑ 15.6	12.4	3.2	26%	14.12	14.63	13.32
2018	711	0.072	1334	4.8	60	114	150,687	↑ 16.5	14.9	1.6	11%	15.92	15.38	14.22
2017	1,121	0.040	2185	4.9	52	123	168,853	↑ 16.9	14.9	2.0	13%	15.54	15.14	14.30
FNMA 15yr 5	643	0.010	7284	5.6	37	140	159,750	↑ 17.4	17.4	0.0	0%	18.53	18.99	18.59
2019	31	0.090	195	5.4	61	114	126,099	↓ 13.2	17.7	-4.5	-26%	16.44	15.02	14.51
2018	89	0.055	604	5.5	53	123	121,912	↑ 16.5	16.4	0.1	0%	17.06	16.43	15.03

*n.m. - Not Meaningful

Source: Bloomberg

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UMBS Prepayment Speeds

November 2019

UMBS 20yr

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
FNMA 20yr 2.5	8,121	0.698	361	3.3	199	37	297,011	↓ 8.7	10.0	-1.3	-13%	9.35	8.82	7.18
2016	3,844	0.749	82	3.2	199	37	295,959	↓ 11.5	12.1	-0.5	-4%	11.13	9.48	7.22
2015	87	0.677	17	3.4	179	55	290,972	↑ 13.7	11.8	1.9	16%	12.17	9.31	8.14
2013	713	0.465	85	3.3	154	79	249,346	↓ 9.0	10.0	-1.0	-10%	9.58	9.72	8.79
2012	1,038	0.440	135	3.2	149	83	240,037	↓ 9.9	11.3	-1.4	-13%	10.56	9.80	8.03
FNMA 20yr 3	63,006	0.578	3233	3.6	187	48	254,442	↑ 13.1	12.4	0.7	6%	12.63	11.43	9.04
2019	8,313	0.981	80	3.8	236	2	296,621	↑ 6.8	6.5	0.3	4%	6.18	4.56	-
2018	318	0.847	35	3.7	217	19	286,282	↑ 20.8	17.0	3.8	22%	17.07	14.91	9.59
2017	5,455	0.793	166	3.7	210	26	266,143	↑ 17.6	16.4	1.3	8%	16.49	13.57	9.60
2016	19,413	0.700	511	3.6	198	38	256,929	↑ 14.1	13.6	0.6	4%	13.50	12.03	9.27
2015	8,996	0.571	361	3.7	183	52	255,316	↑ 15.1	14.1	1.0	7%	14.65	12.59	9.86
2014	1,336	0.434	110	3.9	173	60	249,694	↑ 17.6	15.4	2.2	14%	15.87	13.84	10.84
2013	8,850	0.447	919	3.6	155	78	218,654	↑ 11.7	10.1	1.6	16%	10.78	10.49	8.70
2012	10,220	0.384	1019	3.6	147	86	239,229	↑ 12.0	11.0	1.1	10%	11.43	10.53	8.70
2011	93	0.299	25	3.6	137	95	236,925	↑ 15.3	12.3	3.0	24%	15.55	12.65	9.32
FNMA 20yr 3.5	38,383	0.450	4523	4.1	184	51	228,445	↑ 17.7	15.2	2.6	17%	15.84	13.80	10.78
2019	4,511	0.937	125	4.3	234	5	267,089	↑ 19.2	16.9	2.3	13%	16.26	11.15	-
2018	3,325	0.823	157	4.0	218	19	259,309	↑ 22.0	20.4	1.7	8%	20.86	16.96	11.55
2017	8,785	0.757	478	4.0	209	27	241,787	↑ 20.3	18.6	1.7	9%	18.42	15.55	11.41
2016	2,330	0.654	276	4.0	198	38	213,649	↑ 17.4	15.1	2.3	15%	15.93	14.47	11.60
2015	3,315	0.522	650	4.1	183	52	194,784	↑ 18.5	14.8	3.7	25%	16.17	14.52	11.51
2014	2,773	0.384	370	4.2	171	63	211,349	↑ 17.3	15.2	2.1	14%	15.65	14.37	11.63
2013	3,420	0.387	840	4.1	159	75	191,757	↑ 14.4	11.4	3.0	27%	13.17	12.39	10.47
2012	5,521	0.309	1206	4.0	142	89	217,059	↑ 13.7	10.0	3.7	36%	11.91	11.30	9.59
2011	3,513	0.224	334	4.0	136	96	226,498	↑ 15.3	12.1	3.2	27%	12.98	12.23	9.95
2010	889	0.167	83	4.0	125	107	222,373	↑ 13.8	10.2	3.6	36%	12.02	11.15	9.79
FNMA 20yr 4	25,411	0.372	3708	4.5	191	45	210,742	↑ 22.7	20.9	1.8	9%	20.92	17.73	13.26
2019	1,375	0.937	150	4.7	233	6	223,879	↑ 19.0	17.0	2.0	12%	15.99	11.40	-
2018	8,894	0.796	494	4.5	221	16	237,156	↑ 32.1	30.3	1.8	6%	29.53	23.70	15.85
2017	4,502	0.725	535	4.4	209	28	208,422	↑ 20.6	19.0	1.6	9%	19.30	16.84	13.18
2016	860	0.604	217	4.4	195	40	189,862	↑ 17.9	14.4	3.5	24%	15.20	13.85	11.73
2015	1,321	0.508	445	4.4	184	51	170,874	↓ 15.2	15.3	-0.1	-1%	14.95	14.60	12.53
2014	2,129	0.404	492	4.6	170	64	173,109	↑ 15.3	13.3	2.0	15%	13.70	13.38	11.87
2013	1,144	0.368	352	4.7	162	72	168,433	↑ 13.8	11.8	2.0	17%	13.38	12.54	10.56
2012	391	0.283	296	4.5	142	90	184,124	↓ 13.3	13.7	-0.3	-2%	14.71	13.04	11.68
2011	1,963	0.196	323	4.5	134	98	201,803	↑ 15.0	11.4	3.6	32%	13.18	12.28	10.31
2010	2,387	0.125	256	4.4	123	108	207,019	↑ 15.0	13.5	1.5	11%	14.38	13.22	11.01
2009	435	0.068	100	4.5	106	124	196,722	↑ 17.9	12.6	5.3	42%	15.27	13.38	11.44
FNMA 20yr 4.5	5,803	0.135	1324	5.0	163	71	178,471	↑ 19.7	17.4	2.3	13%	17.97	16.22	12.79
2019	506	0.934	118	5.1	231	7	157,768	↑ 21.7	14.5	7.2	50%	15.29	10.71	-
2018	1,854	0.811	250	5.2	222	14	175,784	↑ 26.7	26.2	0.6	2%	25.52	22.03	15.30
2017	126	0.704	49	5.0	211	26	160,906	↑ 31.2	15.8	15.4	98%	23.29	21.11	15.78
2014	76	0.412	52	5.2	167	67	149,235	↓ 8.1	10.9	-2.8	-26%	10.72	11.49	12.37
2013	63	0.370	42	5.1	162	72	144,972	↓ 9.6	11.4	-1.9	-16%	10.11	15.71	12.99
2011	938	0.169	150	4.9	131	102	186,000	↑ 15.0	11.6	3.5	30%	12.94	12.46	11.13
2010	1,107	0.105	161	4.9	119	112	193,314	↑ 15.6	13.4	2.3	17%	14.49	13.64	11.60
2009	893	0.064	197	4.9	108	123	181,035	↑ 14.1	12.3	1.8	14%	12.86	12.75	11.08
FNMA 20yr 5	1,402	0.027	1298	5.5	87	147	159,577	↑ 15.7	14.0	1.7	12%	14.58	14.43	12.92
2011	92	0.174	49	5.4	130	103	178,859	↑ 14.6	9.5	5.1	54%	13.86	15.58	13.26
2010	141	0.103	57	5.4	118	114	170,657	↑ 12.2	12.0	0.2	2%	13.90	14.94	12.72
2009	158	0.085	88	5.4	110	122	164,622	↑ 18.3	13.4	4.9	36%	14.19	13.38	11.67

*n.m. - Not Meaningful

Source: Bloomberg

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UMBS Prepayment Speeds

November 2019

UMBS 30yr

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
FNMA 30yr 2	237	0.853	219	3.0	318	39	207,581	↓ 3.7	3.9	-0.2	*n.m.	3.25	3.21	3.49
2016	150	0.875	104	3.0	319	38	192,676	↑ 3.3	3.2	0.1	*n.m.	2.86	2.96	3.10
FNMA 30yr 2.5	51,101	0.877	2062	3.4	338	18	357,654	↓ 4.1	4.6	-0.5	*n.m.	5.00	6.53	5.75
2019	36,934	0.995	253	3.5	357	2	373,135	↑ 2.1	2.1	0.1	*n.m.	1.75	1.19	-
2018	44	0.945	50	3.5	338	18	206,311	↑ 3.1	0.6	2.5	*n.m.	1.36	3.67	2.61
2016	6,206	0.826	392	3.4	314	39	331,560	↑ 8.8	7.6	1.2	16%	8.33	8.20	6.38
2015	383	0.725	181	3.4	298	53	268,839	↑ 10.9	8.3	2.6	32%	10.20	9.77	7.60
2014	41	0.703	42	3.2	291	61	243,593	↑ 15.4	0.8	14.6	*n.m.	11.24	10.77	8.70
2013	1,731	0.581	365	3.1	267	80	311,226	↑ 7.9	6.1	1.7	28%	7.96	8.27	6.85
2012	5,378	0.562	599	3.2	264	83	311,212	↑ 9.5	8.1	1.4	17%	8.66	8.50	6.94
FNMA 30yr 3	634,800	0.686	27919	3.7	311	42	316,291	↑ 11.8	10.8	1.0	9%	11.05	10.58	8.52
2019	190,606	0.982	2770	3.9	355	3	340,826	↑ 7.5	6.5	1.0	16%	6.21	4.74	-
2018	2,370	0.896	302	3.9	338	18	319,505	↑ 21.1	17.1	4.0	23%	16.91	11.99	7.53
2017	11,091	0.869	811	3.8	329	26	323,938	↑ 15.2	12.7	2.6	20%	12.74	10.56	7.50
2016	189,706	0.743	6683	3.6	315	39	308,764	↑ 14.4	13.1	1.3	10%	13.41	12.27	9.39
2015	50,900	0.654	3253	3.8	298	53	317,969	↑ 15.2	13.8	1.4	10%	13.73	12.50	9.64
2014	3,560	0.525	567	3.9	291	59	306,141	↑ 18.2	15.4	2.7	18%	16.05	13.53	10.32
2013	88,056	0.513	6025	3.6	270	79	293,924	↑ 11.7	10.4	1.3	13%	11.02	10.60	8.65
2012	98,175	0.484	7375	3.6	263	85	301,938	↑ 12.0	10.5	1.4	13%	11.03	10.43	8.40
2011	287	0.404	93	3.7	246	95	289,409	↑ 14.3	12.8	1.5	11%	11.98	10.45	8.24
FNMA 30yr 3.5	777,598	0.590	64924	4.1	313	40	289,974	↑ 20.5	17.8	2.7	15%	17.89	15.07	11.33
2019	175,569	0.944	4035	4.4	353	5	318,639	↑ 20.2	16.0	4.2	26%	15.92	11.38	-
2018	41,502	0.822	2100	4.2	338	18	325,759	↑ 32.6	31.4	1.2	4%	29.17	22.71	14.53
2017	155,558	0.805	7710	4.1	328	26	299,973	↑ 22.3	19.8	2.4	12%	19.48	15.71	10.89
2016	84,524	0.666	8958	4.1	315	39	267,828	↑ 20.8	18.4	2.4	13%	18.70	16.51	12.75
2015	118,489	0.544	10343	4.1	301	51	280,153	↑ 20.5	18.0	2.5	14%	18.46	16.26	12.48
2014	41,474	0.417	5496	4.2	289	61	275,011	↑ 21.7	18.8	2.9	15%	19.27	16.78	12.83
2013	49,469	0.429	8571	4.0	273	77	254,580	↑ 15.6	13.5	2.1	16%	14.09	13.11	10.74
2012	85,037	0.365	14243	4.0	258	88	261,777	↑ 14.5	12.6	1.9	15%	13.29	12.28	10.03
2011	18,777	0.288	2153	4.0	250	96	280,416	↑ 15.0	13.3	1.7	12%	13.65	12.40	9.75
2010	6,847	0.236	1110	4.1	237	108	278,629	↑ 16.7	14.5	2.2	15%	14.93	13.03	10.30
2009	315	0.243	142	4.0	218	125	258,188	↑ 16.9	10.1	6.8	67%	12.49	11.59	9.83
FNMA 30yr 4	606,497	0.467	74057	4.6	314	40	266,201	↑ 29.7	27.4	2.3	8%	26.85	22.30	15.77
2019	80,817	0.913	3908	4.8	352	6	284,311	↑ 26.7	23.3	3.4	15%	22.60	16.75	-
2018	174,929	0.769	7201	4.7	341	15	300,960	↑ 43.3	41.6	1.7	4%	39.74	32.19	20.83
2017	113,393	0.739	9080	4.5	328	28	266,488	↑ 27.2	24.7	2.5	10%	24.30	20.33	14.62
2016	29,429	0.615	6245	4.5	315	39	235,524	↑ 22.8	21.1	1.7	8%	21.18	18.79	14.85
2015	32,759	0.488	7971	4.6	302	51	224,714	↑ 22.2	19.5	2.7	14%	20.29	18.28	14.77
2014	49,588	0.352	9481	4.6	287	64	237,833	↑ 22.1	19.1	2.9	15%	19.80	17.73	14.11
2013	37,727	0.322	7772	4.6	276	73	227,841	↑ 20.0	17.1	2.9	17%	17.89	16.05	12.92
2012	21,055	0.322	7859	4.5	257	89	210,059	↑ 15.7	13.7	2.0	14%	14.50	13.69	11.49
2011	25,905	0.231	6263	4.5	249	98	240,502	↑ 16.9	14.4	2.4	17%	15.25	13.76	11.21
2010	27,696	0.182	5090	4.5	238	108	249,950	↑ 16.9	14.4	2.5	18%	15.35	13.87	11.15
2009	12,795	0.105	2825	4.5	220	125	255,160	↑ 17.4	14.5	2.9	20%	15.50	13.98	11.44
FNMA 30yr 4.5	245,781	0.277	54328	5.1	306	47	240,092	↑ 27.9	25.5	2.4	9%	25.75	22.42	16.42
2019	29,173	0.918	2742	5.2	351	6	256,512	↑ 23.6	19.9	3.6	18%	20.30	15.96	-
2018	97,403	0.779	6922	5.1	342	15	258,428	↑ 37.1	34.8	2.3	7%	34.61	29.50	19.98
2017	27,128	0.690	4908	5.0	329	27	239,714	↑ 26.3	24.5	1.8	7%	24.71	22.10	17.07
2016	5,054	0.548	1624	4.9	315	39	218,382	↑ 24.0	21.4	2.6	12%	22.17	20.54	17.21
2015	2,939	0.496	1473	5.0	300	51	154,817	↑ 18.6	18.0	0.6	3%	18.03	17.01	14.55
2014	9,052	0.349	4702	5.0	286	65	179,627	↑ 19.9	17.0	3.0	17%	18.18	17.41	14.85
2013	7,380	0.312	3395	5.0	277	73	183,690	↑ 19.1	16.1	3.0	19%	17.28	16.34	13.89
2012	1,900	0.294	1840	5.0	256	91	175,955	↑ 16.1	15.2	0.8	5%	16.41	14.87	13.07
2011	19,229	0.191	8302	4.9	246	101	216,152	↑ 17.7	15.0	2.7	18%	15.88	14.72	12.26
2010	18,126	0.136	6882	4.9	235	111	233,704	↑ 17.5	15.9	1.6	10%	16.47	15.02	12.32
2009	24,812	0.081	6703	4.9	223	124	237,010	↑ 18.8	15.6	3.2	21%	16.60	14.99	12.28
FNMA 30yr 5	80,185	0.097	47434	5.6	272	80	212,766	↑ 22.3	19.9	2.5	12%	20.71	19.03	15.03
2019	10,896	0.935	1823	5.7	352	6	245,336	↑ 20.2	17.1	3.1	18%	17.15	13.89	-
2018	26,274	0.800	3100	5.7	343	14	220,869	↑ 30.7	27.4	3.3	12%	28.54	25.98	18.52
2017	844	0.596	274	5.5	328	28	234,939	↑ 31.6	26.7	4.9	19%	28.69	26.39	21.14
2016	716	0.364	549	5.4	285	66	154,626	↑ 19.3	19.0	0.3	2%	19.01	18.47	15.33
2015	675	0.293	454	5.4	277	72	178,940	↑ 20.5	16.5	4.0	24%	18.15	16.90	14.33
2014	76	0.260	174	5.5	256	91	163,060	↓ 12.6	26.3	-13.7	-52%	19.06	18.83	16.32
2013	5,468	0.188	4465	5.4	246	102	204,502	↑ 18.2	16.2	2.0	12%	16.83	15.87	13.79
2012	8,506	0.136	4142	5.4	235	113	219,314	↑ 18.8	16.9	1.9	11%	17.93	16.31	13.69
2011	7,658	0.093	4848	5.4	226	122	208,528	↑ 18.2	16.4	1.7	11%	17.02	15.77	13.38
FNMA 30yr 5.5	32,093	0.029	60410	6.0	193	156	176,749	↑ 15.6	14.0	1.6	12%	14.86	14.34	12.87
2019	770	0.919	308	6.3	351	7	196,405	↓ 17.2	17.8	-0.6	-3%	18.67	16.13	-
2018	2,269	0.817	524	6.2	344	13	215,221	↑ 29.2	25.2	4.0	16%	26.43	24.16	17.14
2017	255	0.185	567	5.9	244	102	154,116	↓ 14.0	15.7	-1.7	-11%	13.42	15.08	13.35
2016	662	0.161	1019	5.9	234	114	184,929	↑ 19.7	18.5	1.2	7%	18.92	17.66	15.00
2015	1,149	0.120	1783	5.9	225	122	176,946	↑ 18.4	13.4	5.0	37%	15.67	14.90	13.60
FNMA 30yr 6	18,698	0.021	60945	6.5	181	167	159,009	↑ 14.2	12.8	1.4	11%	13.52	13.25	12.64
2009	155	0.101	577	6.5	222	124	156,962	↓ 17.8	17.8	0.0	0%	15.80	15.05	15.18

UMBS Prepayment Speeds

November 2019

UMBS Jumbos

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
15yr Jumbo 2	81	0.488	36	2.6	118	58	558,933	↓ 4.2	24.4	-20.2	-83%	11.17	13.23	9.00
2013	51	0.406	18	2.6	98	77	546,523	↓ 6.1	24.6	-18.5	-75%	12.14	15.15	10.60
15yr Jumbo 2.5	1,715	0.496	201	3.0	125	51	545,999	↑ 9.7	9.0	0.7	8%	9.84	9.61	7.92
2019	184	0.991	5	3.1	178	2	598,054	↑ 0.2	-0.1	0.2	*n.m.	1.54	8.80	-
2017	89	0.808	18	3.0	151	26	538,231	↓ 7.2	8.4	-1.2	-15%	7.99	7.49	4.72
2016	562	0.680	25	2.9	139	37	526,578	↑ 10.2	9.5	0.7	8%	9.68	9.18	7.71
2015	224	0.472	34	3.0	121	53	545,052	↑ 11.1	6.6	4.4	67%	9.77	9.82	8.20
2014	32	0.370	17	3.1	112	61	543,700	↓ 2.3	23.8	-21.6	-91%	20.70	14.64	10.36
2013	370	0.407	55	3.0	97	78	546,265	↑ 13.7	10.0	3.7	37%	11.40	10.37	8.79
2012	249	0.289	43	3.0	89	84	554,507	↓ 9.6	9.8	-0.1	-1%	10.36	10.87	8.44
15yr Jumbo 3	338	0.182	175	3.5	103	71	557,832	↑ 9.7	8.8	0.9	10%	10.67	11.36	10.10
2017	71	0.723	17	3.5	149	28	558,086	↑ 8.2	0.8	7.4	*n.m.	6.35	8.35	5.57
2012	68	0.144	41	3.5	83	90	545,021	↓ 14.6	14.8	-0.2	-1%	15.04	13.68	11.54
2011	130	0.116	44	3.4	79	96	572,842	↓ 5.1	7.1	-2.0	-28%	9.02	11.07	11.32
15yr Jumbo 3.5	123	0.071	131	3.9	85	89	588,126	↑ 12.0	11.2	0.8	7%	15.38	13.56	10.98
2011	72	0.066	63	3.9	74	99	581,405	↑ 13.9	10.0	3.9	39%	13.19	12.11	9.37
30yr Jumbo 2.5	1,599	0.902	73	3.4	322	32	572,227	↓ 5.9	7.4	-1.5	-21%	5.61	6.16	5.85
2016	458	0.915	30	3.3	313	37	551,785	↑ 8.6	5.6	3.0	54%	5.63	5.03	5.76
2012	136	0.542	17	3.5	265	83	550,945	↓ 12.9	19.9	-7.0	-35%	14.53	11.59	8.24
30yr Jumbo 3	36,432	0.684	900	3.7	309	44	555,532	↑ 15.2	13.9	1.3	9%	13.21	11.03	8.05
2019	7,720	0.980	72	3.9	357	2	607,717	↓ 8.9	13.0	-4.0	-31%	9.13	6.79	-
2018	202	0.947	18	3.8	336	18	578,119	↓ 6.8	8.2	-1.4	-17%	6.58	6.30	3.79
2017	1,883	0.890	65	3.8	329	26	549,549	↑ 21.5	14.7	6.8	46%	16.71	13.32	8.70
2016	11,647	0.761	173	3.7	314	39	535,796	↑ 18.3	15.9	2.4	15%	15.56	12.66	8.86
2015	3,927	0.693	144	3.8	299	53	543,518	↑ 17.3	15.8	1.5	9%	14.51	12.15	8.73
2014	559	0.605	26	3.8	290	60	534,811	↑ 17.4	10.0	7.4	74%	12.24	10.78	7.68
2013	5,146	0.506	178	3.7	271	79	545,345	↑ 13.4	11.8	1.6	14%	11.64	10.20	7.97
2012	5,345	0.486	222	3.7	265	84	545,185	↑ 14.8	10.9	3.9	36%	11.52	9.26	7.03
30yr Jumbo 3.5	27,252	0.502	1276	4.2	317	38	560,251	↑ 33.6	30.1	3.5	12%	28.85	22.31	14.95
2019	5,161	0.934	93	4.4	355	4	614,920	↑ 28.9	26.0	2.9	11%	25.03	16.17	-
2018	2,021	0.817	82	4.3	338	18	577,305	↑ 48.2	46.6	1.6	3%	42.17	32.74	21.11
2017	7,884	0.724	142	4.2	330	27	545,332	↑ 41.4	37.8	3.6	9%	36.20	27.63	17.76
2016	3,479	0.595	117	4.2	318	38	550,996	↑ 34.9	30.9	4.0	13%	30.05	23.68	16.38
2015	2,377	0.436	166	4.1	304	51	538,989	↑ 29.6	23.9	5.8	24%	23.83	19.69	13.80
2014	1,019	0.302	82	4.2	290	62	528,154	↑ 23.3	17.0	6.3	37%	17.63	15.99	11.78
2013	1,160	0.336	120	4.0	275	76	541,730	↑ 23.4	18.1	5.3	29%	18.86	16.05	11.62
2012	3,717	0.259	365	4.0	261	88	542,845	↑ 19.8	16.6	3.1	19%	16.29	13.36	9.69
2011	386	0.150	94	4.1	253	96	561,528	↑ 24.3	11.6	12.7	109%	17.63	15.97	11.17
2010	49	0.150	15	4.2	236	108	603,222	↑ 34.5	12.1	22.4	185%	25.68	18.75	14.63
30yr Jumbo 4	11,993	0.225	1277	4.7	314	42	584,203	↑ 43.9	41.4	2.6	6%	39.58	33.67	24.07
2019	1,980	0.911	79	4.9	354	5	633,821	↑ 37.0	28.8	8.2	28%	31.47	23.00	-
2018	3,553	0.661	127	4.8	342	16	580,366	↓ 60.0	60.1	-0.2	0%	56.00	49.93	36.05
2017	2,206	0.577	99	4.6	330	27	568,994	↑ 49.3	42.4	7.0	16%	42.63	35.60	25.15
2016	387	0.441	55	4.7	317	40	591,267	↓ 27.1	36.5	-9.4	-26%	31.73	26.73	18.47
2015	146	0.319	66	4.7	306	50	568,720	↑ 37.0	24.3	12.7	52%	27.78	22.01	16.27
2014	374	0.173	84	4.6	289	64	533,732	↑ 35.9	31.1	4.8	15%	30.50	21.90	17.55
2013	489	0.143	96	4.6	279	73	528,531	↑ 26.4	18.8	7.7	41%	23.04	18.80	13.49
2012	276	0.140	119	4.5	256	91	542,587	↑ 23.7	19.8	4.0	20%	20.85	16.44	12.83
2011	1,322	0.084	337	4.5	252	98	586,572	↑ 22.5	21.6	0.9	4%	20.59	16.57	12.10
2010	1,233	0.072	191	4.5	242	108	587,309	↓ 22.4	22.8	-0.3	-1%	19.83	16.56	12.74
30yr Jumbo 4.5	2,899	0.079	725	5.2	300	54	607,225	↑ 38.8	37.1	1.7	5%	35.94	32.76	25.02
2019	537	0.916	35	5.4	353	6	650,478	↑ 40.2	31.8	8.4	26%	32.90	30.09	-
2018	999	0.664	51	5.4	345	13	611,422	↑ 56.0	54.3	1.7	3%	54.02	49.87	38.90
2017	111	0.453	27	5.2	327	29	621,479	↓ 38.3	59.0	-20.7	-35%	41.39	36.35	26.04
2011	361	0.049	230	4.9	248	101	597,852	↓ 13.0	15.7	-2.7	-17%	15.46	15.51	12.22
2010	569	0.035	193	4.9	238	111	583,439	↓ 24.0	25.1	-1.1	-4%	21.78	18.76	14.40
2009	266	0.027	73	4.9	226	122	573,457	↓ 14.1	20.1	-5.9	-30%	16.46	16.06	12.42
30yr Jumbo 5	513	0.027	280	5.5	256	97	576,289	↑ 20.8	18.0	2.7	15%	21.61	23.22	20.14
2011	34	0.049	64	5.3	247	103	613,851	↑ 16.9	12.8	4.1	32%	24.70	22.75	16.28
2010	123	0.027	83	5.4	238	113	565,829	↑ 28.7	10.0	18.7	186%	18.97	20.19	17.88
2009	165	0.020	54	5.4	230	121	568,895	↓ 9.6	14.2	-4.6	-33%	14.74	11.84	11.64

*n.m. - Not Meaningful

Source: Bloomberg

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UMBS Prepayment Speeds

November 2019

UMBS 105-125 LTV

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
30yr 105-125 LTV 3	2,711	0.505	959	3.7	243	78	234,850	↑ 12.1	12.0	0.1	1%	12.12	11.49	9.47
2016	158	0.770	91	3.9	284	39	228,566	↑ 17.1	5.6	11.5	205%	12.78	11.64	8.50
2015	50	0.703	56	3.9	221	52	218,452	↓ 7.8	9.9	-2.1	-21%	7.38	7.59	6.76
2013	1,543	0.507	418	3.7	246	79	232,183	↑ 11.8	11.6	0.2	1%	12.05	11.88	9.84
2012	946	0.466	377	3.7	234	84	241,232	↓ 12.0	13.8	-1.8	-13%	12.46	11.01	9.18
30yr 105-125 LTV 3.5	11,557	0.454	2549	4.1	259	80	236,761	↑ 14.9	14.4	0.4	3%	14.33	13.69	11.38
2017	58	0.869	65	4.1	288	29	236,676	↓ 2.3	3.1	-0.8	*n.m.	4.84	8.44	5.89
2016	300	0.749	131	4.2	305	40	226,451	↑ 15.5	10.5	5.1	48%	11.67	11.66	9.89
2015	380	0.689	237	4.2	276	52	225,426	↑ 13.1	11.6	1.4	12%	10.85	10.06	8.27
2014	148	0.601	139	4.3	232	62	221,067	↑ 13.1	6.2	6.9	111%	9.70	8.71	7.75
2013	4,228	0.484	850	4.1	264	78	229,965	↑ 13.9	13.6	0.3	2%	13.91	13.83	11.49
2012	6,412	0.418	1078	4.1	254	86	242,772	↑ 15.6	15.5	0.1	1%	15.08	14.06	11.68
30yr 105-125 LTV 4	7,712	0.415	2633	4.6	265	78	228,430	↑ 16.7	15.7	1.0	6%	16.32	14.89	12.42
2018	41	0.927	26	4.7	319	19	218,329	↑ 11.9	5.9	6.0	101%	11.30	6.98	3.65
2017	245	0.840	107	4.6	317	28	223,802	↑ 11.2	8.6	2.6	30%	10.18	8.82	7.14
2016	180	0.722	103	4.6	309	41	214,512	↑ 10.6	8.1	2.5	31%	9.84	10.65	9.18
2015	487	0.650	217	4.6	295	52	213,482	↓ 13.1	14.4	-1.3	-9%	13.13	12.80	11.06
2014	766	0.564	392	4.7	270	64	217,430	↑ 14.9	13.2	1.6	12%	14.46	13.26	11.15
2013	1,758	0.481	680	4.6	269	75	217,561	↓ 13.6	15.8	-2.2	-14%	15.36	14.36	12.60
2012	3,801	0.355	858	4.5	255	89	236,489	↑ 18.9	16.9	2.0	12%	17.79	16.11	13.20
2011	343	0.298	168	4.6	236	96	245,240	↑ 20.1	15.9	4.2	26%	18.96	16.85	13.06
2010	91	0.257	78	4.5	232	107	255,666	↑ 29.5	29.2	0.2	1%	23.90	17.62	13.73
30yr 105-125 LTV 4.5	2,909	0.329	1469	5.0	262	83	230,691	↑ 20.4	17.8	2.6	14%	18.75	17.38	14.29
2015	31	0.605	59	4.9	297	55	195,878	↑ 23.7	5.6	18.1	326%	15.28	14.33	15.18
2014	614	0.513	276	5.1	284	65	210,018	↑ 18.3	17.3	1.0	6%	18.36	16.26	13.73
2013	712	0.455	297	5.1	275	72	213,111	↑ 18.1	17.0	1.1	6%	16.71	15.83	13.30
2012	288	0.310	178	4.9	253	91	229,910	↓ 17.8	22.5	-4.8	-21%	19.52	17.14	14.52
2011	907	0.253	353	5.0	243	99	251,885	↑ 23.3	19.4	3.9	20%	20.16	19.05	15.19
2010	277	0.205	204	5.0	236	108	257,193	↑ 25.9	16.6	9.3	56%	22.70	20.92	16.27
30yr 105-125 LTV 5	838	0.194	695	5.4	245	103	249,130	↑ 25.9	20.0	5.9	30%	22.07	21.03	17.56
2013	42	0.453	29	5.6	278	72	198,245	↑ 22.4	18.4	4.0	22%	17.69	19.32	14.03
2011	483	0.215	308	5.4	245	101	251,456	↑ 22.9	18.9	4.1	22%	20.95	20.13	16.93
2010	245	0.152	255	5.5	236	112	258,322	↑ 25.2	20.4	4.7	23%	22.18	21.59	18.68
2009	41	0.137	51	5.4	230	119	263,042	↑ 48.9	31.7	17.2	54%	32.75	30.04	22.02
30yr 105-125 LTV 5.5	55	0.147	158	5.9	237	112	257,403	↓ 16.2	34.8	-18.5	-53%	24.05	21.62	20.62
2010	38	0.143	76	5.9	235	114	259,133	↓ 19.8	37.8	-18.0	-48%	24.98	21.98	21.39

*n.m. - Not Meaningful

Source: Bloomberg

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UMBS Prepayment Speeds

November 2019

UMBS 125+ LTV

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
30yr 125+ LTV 3	2,281	0.531	676	3.8	253	80	234,338	↓ 11.0	12.3	-1.3	-10%	11.38	11.21	9.64
2013	1,306	0.546	344	3.8	255	79	231,467	↓ 10.7	11.6	-0.9	-8%	11.13	10.94	9.59
2012	907	0.500	279	3.7	248	83	239,914	↓ 12.1	13.4	-1.2	-9%	12.21	12.07	9.97
30yr 125+ LTV 3.5	12,153	0.487	1829	4.1	260	81	233,087	↑ 15.0	13.6	1.4	10%	14.18	13.66	11.49
2016	131	0.809	74	4.2	309	40	212,008	↓ 9.0	9.6	-0.6	-6%	7.40	6.74	5.60
2015	173	0.701	124	4.2	278	51	204,818	↑ 11.0	5.1	6.0	117%	8.12	8.29	7.94
2014	52	0.662	59	4.4	239	62	198,342	↓ 7.2	10.8	-3.6	-33%	10.46	10.62	8.55
2013	4,582	0.524	736	4.1	266	78	224,754	↑ 13.5	12.7	0.8	7%	13.24	12.67	10.99
2012	7,183	0.457	802	4.1	256	85	239,779	↑ 16.3	14.6	1.8	12%	15.11	14.58	12.03
30yr 125+ LTV 4	6,764	0.458	1804	4.6	264	80	222,870	↑ 17.3	15.5	1.8	12%	16.27	15.42	12.79
2017	86	0.852	56	4.7	317	28	198,219	↓ 5.5	20.7	-15.2	-74%	10.10	8.11	6.45
2016	86	0.778	70	4.6	311	41	194,077	↑ 3.4	2.8	0.6	*n.m.	4.62	6.58	6.66
2015	242	0.688	155	4.6	296	52	191,298	↑ 12.8	8.3	4.5	55%	10.21	10.33	9.18
2014	401	0.611	242	4.7	272	64	203,616	↑ 17.5	8.9	8.6	97%	13.78	11.82	9.39
2013	1,622	0.525	608	4.6	270	76	212,663	↑ 12.9	11.9	1.0	8%	12.77	12.87	11.72
2012	4,312	0.412	660	4.5	258	87	231,376	↑ 19.7	18.0	1.7	9%	18.45	17.25	13.93
30yr 125+ LTV 4.5	1,643	0.487	803	5.1	273	74	210,783	↑ 16.9	15.6	1.2	8%	16.17	15.46	12.97
2014	463	0.585	239	5.1	282	66	199,517	↑ 17.8	15.1	2.7	18%	15.13	13.42	10.97
2013	753	0.525	293	5.1	273	73	209,640	↓ 13.9	15.5	-1.6	-10%	14.92	14.82	12.61
2012	390	0.357	168	5.0	258	89	228,719	↑ 21.6	17.8	3.8	21%	20.18	19.41	16.09
30yr 125+ LTV 5	84	0.507	80	5.5	280	69	183,155	↑ 18.6	14.2	4.4	31%	14.79	14.92	12.56
2014	41	0.533	32	5.4	286	66	183,893	↑ 20.9	8.1	12.8	158%	10.89	11.27	10.51
2013	42	0.487	37	5.6	276	72	181,202	↓ 16.4	19.9	-3.5	-18%	18.60	18.46	14.61

*n.m. - Not Meaningful

Source: Bloomberg

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UMBS Prepayment Speeds

November 2019

UMBS Relocation

	Indicative Data							Prepayment Speeds						
	Cur Bal (MM)	Factor	# of Pools	WAC	WAM	WALA	WAOLS	Nov	Oct	Chg	% Chg	3mo	6mo	12mo
15yr RELO 2	29	0.388	18	2.6	115	55	308,738	↓ 11.5	22.2	-10.8	-48%	19.57	21.45	17.18
2015	13	0.396	7	2.6	113	52	303,275	↑ 18.0	3.4	14.6	*n.m.	16.42	20.49	14.96
15yr RELO 2.5	164	0.308	85	3.0	112	61	280,869	↑ 17.4	11.3	6.1	54%	17.03	18.51	16.71
2014	65	0.313	41	3.0	110	63	272,490	↓ 18.4	18.5	-0.1	0%	19.19	18.66	16.09
30yr RELO 2.5	266	0.500	46	3.2	295	55	332,620	↓ 9.8	17.0	-7.2	-42%	13.76	14.18	11.98
2016	62	0.692	10	3.1	317	37	328,711	↓ 24.4	36.3	-11.9	-33%	27.10	21.13	16.92
2013	110	0.401	25	3.1	270	79	323,285	↓ 3.5	11.8	-8.4	-71%	9.79	12.05	10.34
2012	43	0.380	3	3.0	263	82	312,984	↓ 0.9	7.9	-7.0	*n.m.	5.65	11.07	9.92
30yr RELO 3	3,918	0.598	348	3.8	312	40	331,606	↑ 17.8	15.0	2.8	18%	16.57	16.76	13.42
2019	152	0.978	18	3.9	355	4	380,646	↑ 7.3	6.1	1.2	19%	7.16	5.58	-
2018	482	0.874	39	4.1	338	17	338,971	↑ 13.8	15.1	-1.3	-8%	16.58	13.66	9.59
2017	1,268	0.783	94	3.8	328	26	332,467	↑ 21.1	17.7	3.4	19%	18.12	17.49	13.34
2016	468	0.636	22	3.6	314	38	322,586	↑ 20.6	13.4	7.2	54%	17.34	19.34	17.17
2015	796	0.529	58	3.7	298	52	324,771	↑ 15.5	14.6	0.9	6%	15.99	17.05	13.51
2014	263	0.435	45	3.9	287	61	331,367	↑ 21.4	16.6	4.8	29%	20.02	19.33	15.15
2013	251	0.370	34	3.5	272	77	325,749	↑ 12.8	8.6	4.2	49%	11.72	15.48	13.24
2012	208	0.332	31	3.5	259	88	326,062	↑ 16.7	12.0	4.7	39%	14.32	14.77	13.16
2011	29	0.404	7	3.8	243	95	339,411	↓ 11.9	16.9	-5.0	-30%	10.35	13.19	13.62
30yr RELO 3.5	1,452	0.374	198	4.1	293	57	319,000	↑ 25.5	20.1	5.4	27%	22.01	20.21	15.55
2019	15	0.879	5	4.4	351	7	327,608	↓ 0.2	21.3	-21.1	*n.m.	13.68	18.78	-
2017	169	0.695	15	4.1	323	30	326,516	↑ 27.4	20.0	7.5	37%	24.93	24.55	18.62
2014	464	0.334	64	4.2	285	64	299,202	↑ 24.0	19.5	4.5	23%	20.63	20.77	17.44
2013	149	0.298	25	4.1	275	73	306,651	↑ 26.4	18.4	8.0	43%	23.23	22.13	17.31
2012	93	0.269	19	3.9	253	92	316,996	↑ 23.1	4.2	18.9	*n.m.	16.63	14.15	13.01
2011	120	0.248	28	4.0	247	97	326,357	↑ 9.0	4.8	4.2	*n.m.	9.77	11.80	9.93
2010	104	0.212	14	3.9	236	107	324,436	↓ 11.2	16.6	-5.4	-33%	12.04	14.31	11.92
30yr RELO 4	412	0.150	142	4.5	265	83	307,009	↑ 23.9	21.3	2.6	12%	21.31	20.12	15.35
2014	77	0.214	37	4.6	284	67	276,531	↓ 22.0	29.9	-8.0	-27%	23.41	22.95	16.38
2011	134	0.123	47	4.4	243	101	300,893	↑ 29.0	11.3	17.7	156%	21.27	20.28	16.47
2010	111	0.103	25	4.4	234	111	313,563	↓ 16.0	18.4	-2.4	-13%	17.67	19.22	14.67
30yr RELO 4.5	68	0.038	277	5.0	206	140	249,473	↓ 20.2	22.7	-2.5	-11%	18.50	18.88	16.14
2011	28	0.088	18	4.8	240	103	271,058	↓ 0.7	20.5	-19.8	*n.m.	11.65	16.65	15.18

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