

CMBS Research

Delinquency Report

September 2017 Remittance

Executive Summary

- The delinquency rate in September improved for the third consecutive month, easing eight basis points to 2.94%, as the delinquent unpaid balance dropped nearly 1%, while the balance of the universe of securitized commercial mortgages rose to a seven-month high of \$770.40 billion.
- The delinquency rate is up just four basis points from a year ago, and it's down six basis points in the year to date.
- Morningstar Credit Ratings, LLC believes the delinquency rate will hold below 3.0% after reaching an 18-month high of 3.19% in June, as there are fewer securitized commercial mortgages left that we expect will default at maturity, resolutions remain high, and issuance has picked up.
- By year-end, an additional \$4.39 billion of loans packaged in commercial mortgage-backed securities will mature. We believe that the payoff rate, which stands at 72.1% for the year through September, will stay above 70% through year-end, as there are fewer CMBS loans left to pay off and we expect continued non-CMBS financing for loans with weaker metrics.
- The CMBS delinquent unpaid balance sunk to a 16-month low of \$22.65 billion, down \$211.0 million from the prior month, and down \$446.0 million, or 1.9%, from the year-earlier period.
- The volume of newly delinquent loans remained below \$1.50 billion for the second consecutive month, registering \$1.49 billion, up modestly from \$1.42 billion the prior month.
- While legacy CMBS now accounts for less than 7.0% of the CMBS universe, delinquencies from deals issued before 2010 represent 91.6% of all delinquencies by balance.
- The special servicing rate fell to its lowest level since 2009, receding to 3.37%, down three basis points from August, even though the portion of postcrisis loans in special servicing rose 11.2% from August. Since the beginning of the year, specially serviced postcrisis loans have more than doubled to \$3.42 billion, up from \$1.53 billion.
- Liquidated loan volume fell to its lowest level in more than four years, registering \$533.5 million, down from \$610.9 million in August. The weighted average loss severity remained below 40% for the second consecutive month, edging up to 39.2% from 37.4% a month prior.

Table 1 – Trailing 12 Months Delinquency (\$ UPB in billions)

Category	Sep-17	Aug-17	Jul-17	Jun-17	May-17	Apr-17	Mar-17	Feb-17	Jan-17	Dec-16	Nov-16	Oct-16
30-Day	2.50	2.72	2.24	3.22	3.07	4.03	3.41	3.47	3.08	2.88	2.69	3.11
60-Day	0.98	1.08	1.37	1.16	1.68	0.85	1.25	1.30	1.15	0.80	1.54	1.16
90-Day	3.26	3.6	3.95	4.22	3.52	3.47	3.61	3.55	3.86	4.25	5.41	5.59
Foreclosure	6.02	5.91	6.3	6.28	6.09	5.81	5.58	5.41	5.7	5.56	3.41	3.31
Real Estate Owned	9.89	9.55	9.05	9.69	9.49	9.72	9.51	9.9	9.79	10.38	10.45	10.66
Total CMBS Del.	22.65	22.86	22.89	24.57	23.84	23.88	23.35	23.63	23.57	23.86	23.50	23.83
Current	747.75	735.30	730.10	744.77	746.37	736.45	742.26	754.94	759.27	772.52	766.06	763.85
Total CMBS	770.40	758.16	753.00	769.34	770.20	760.33	765.62	778.57	782.84	796.38	789.57	787.67
Delinquency %	2.94	3.02	3.04	3.19	3.09	3.14	3.05	3.04	3.01	3.00	2.98	3.03

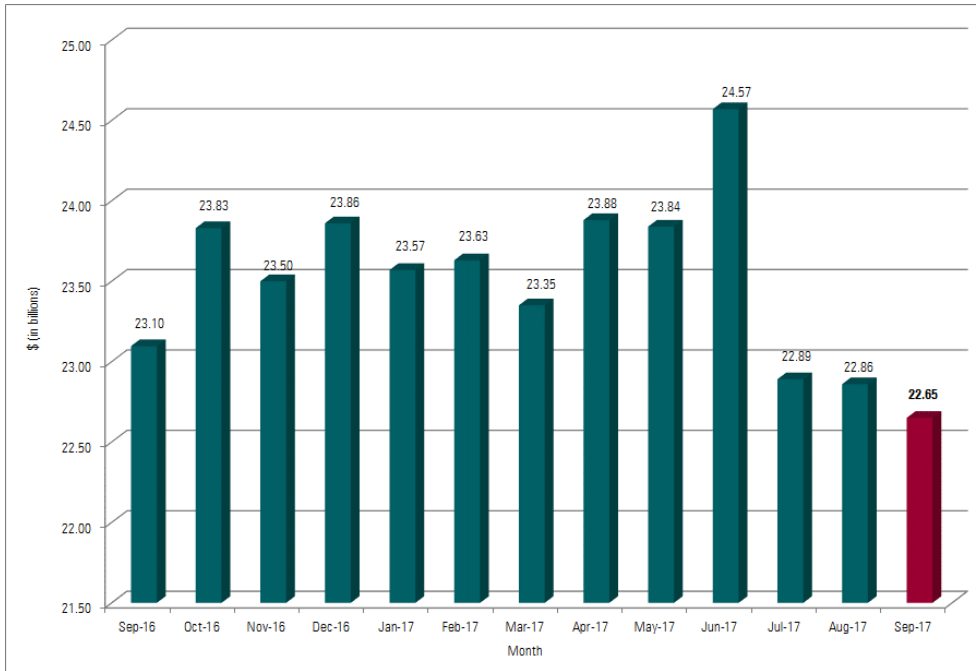
Source: Morningstar Credit Ratings, LLC

Our unpaid principal balance available for review includes the All Deals, Agency, and Canadian portfolios as identified on our website, www.morningstarcreditratings.com, a representation of all CMBS data collected by Morningstar monthly.

Newly delinquent loans include the \$92.8 million Charleston Town Center loan, the largest loan in BSCMS 2007-T28, which is backed by part of a mall in downtown Charleston, West Virginia. Despite strong 2016 net cash flow that improved 21.4% from the underwritten amount and an 11.5% debt yield, Jeff Litton, spokesman for the borrower, Forest City Enterprises, stated that refinancing efforts were unsuccessful and that the company expects "to successfully negotiate a new payment schedule," according to *The State Journal*. However, Forest City has sold off a number of malls, possibly not wanting to be in this business anymore. The company had an agreement to sell a portfolio of malls, including Charleston Town Center, but the buyer dropped the property. Despite rising cash flow, the loss of noncollateral anchor tenant Sears earlier this year, is likely contributing the loan's struggle to refinance. We value the collateral, 363,140 square feet of a 931,333-square-foot regional mall, at \$96.5 million based on a 10.0% capitalization rate and 2016 net cash flow of \$10.7 million. This valuation suggests a 96.2% loan-to-value ratio. While we believe a liquidation is unlikely, our value estimate includes a 10% reduction for disposition costs.

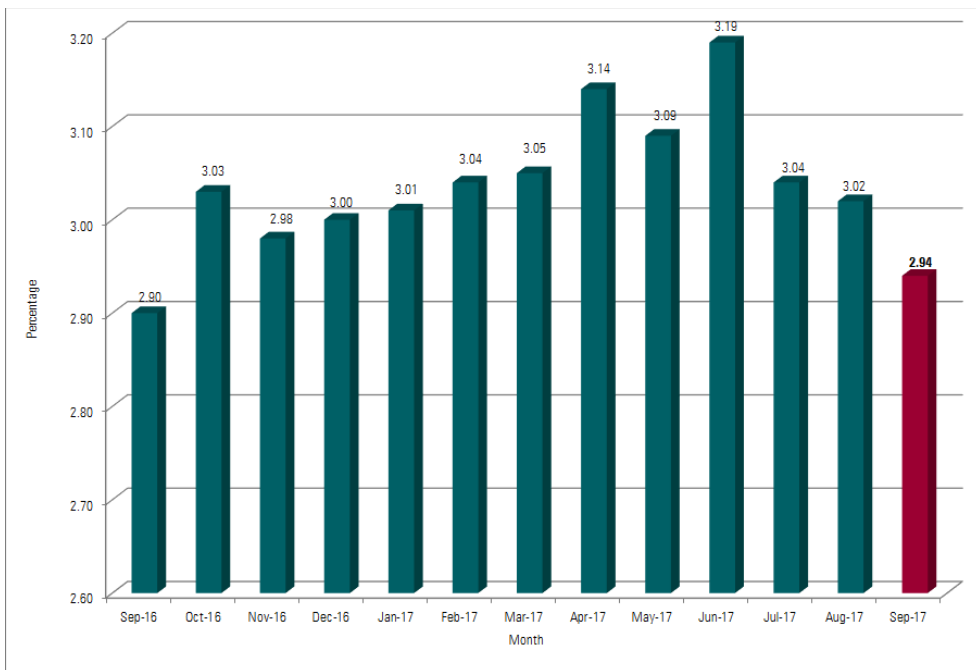
Other newly delinquent loans include 58 commercial mortgages totaling \$543.8 million securitized in postcrisis deals. While this includes four pari passu notes backed by the Hammons Hotel Portfolio loan in CGCMT 2015-GC33, GSMS 2015-GS1, CGCMT 2015-GC35, and GSMS 2015-GC34, with a combined \$243.2 million balance, their status returned to current in the October reporting period before this report was published. Separately, the \$65.0 million NMS Los Angeles Multifamily Portfolio loan, 7.1% of COMM 2015-CR27, returned to current status in the October reporting period before this report was published as well. The loan is pari passu with a \$30.0 million loan in CFCRE 2016-C3 and a \$25.0 million loan in CFCRE 2016-C4, neither of which were delinquent.

Chart 1 – Monthly CMBS Delinquency by Balance



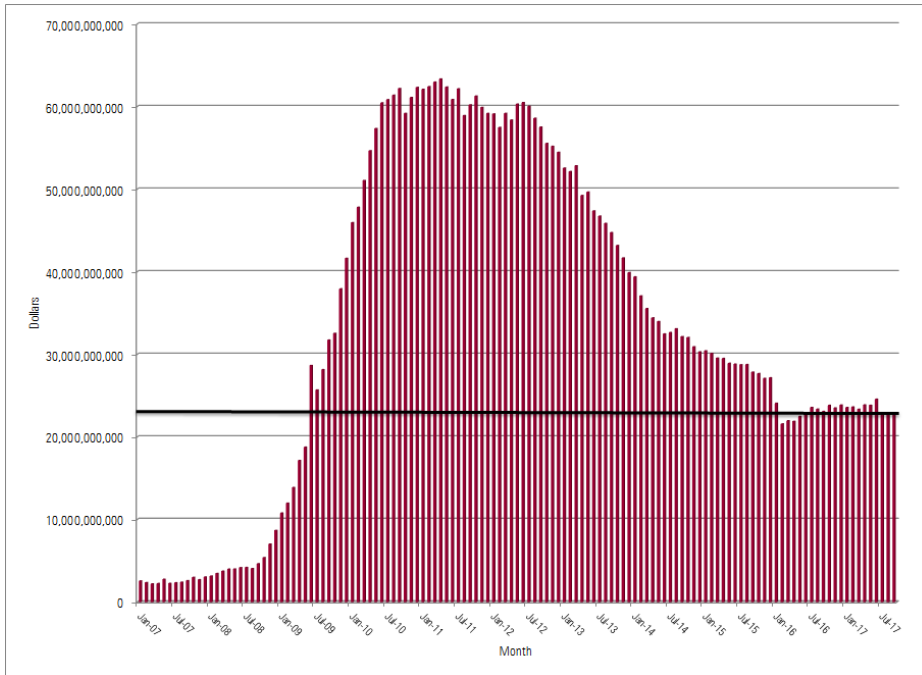
Source: Morningstar Credit Ratings, LLC

Chart 2 – Monthly CMBS Delinquency by Percentage



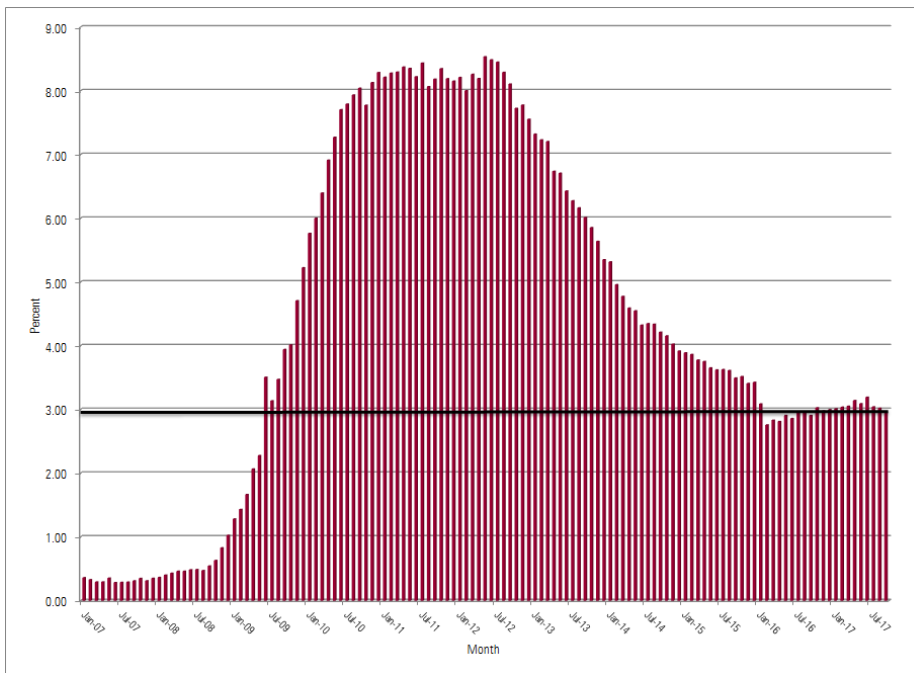
Source: Morningstar Credit Ratings, LLC

Chart 3 – Historical Monthly CMBS Delinquency by Unpaid Balance



Source: Morningstar Credit Ratings, LLC

Chart 4 – Historical Monthly CMBS Delinquency by Percentage



Source: Morningstar Credit Ratings, LLC

Property Type

Compared with year-ago levels, hotel and retail properties show the only deterioration, as the delinquent balance rose 2.6% for hotels; however, this includes the previously mentioned Hammons Hotel Portfolio loan, which has since returned to current status. Meanwhile, retail delinquency rose by a scant 0.1% to \$8.29 billion, but it still tops the major property types by unpaid balance. Separately, office continues to have the highest rate of delinquency as a percentage of property-type exposure. By dollar amount, the major property types exhibit the following activity:

- Hotel loan delinquency rose by \$60.3 million, or 2.6%, from \$2.29 billion one year ago.
- Industrial loan delinquency eased by \$19.8 million, or 1.8%, from \$1.12 billion one year ago.
- Multifamily loan delinquency improved by \$97.1 million, or 5.4%, from \$1.79 billion one year ago.
- Office loan delinquency fell by \$298.2 million, or 3.8%, from \$7.93 billion one year ago.
- Retail loan delinquency crept up by \$6.3 million, or 0.1%, from \$8.28 billion one year ago.

Table 2 – Monthly Delinquency by Property Type

Property Type	\$ Current Balance	# Loans	% of CMBS Universe	% of CMBS Delinq.	% of Property Type
Healthcare	87,644,521	6	0.01	0.39	2.08
Hotel	2,349,432,556	114	0.30	10.37	3.50
Industrial	1,096,358,670	73	0.14	4.84	5.29
Multifamily	1,688,488,478	218	0.22	7.45	0.45
Office	7,629,272,365	372	0.99	33.68	6.42
Other	1,511,567,561	93	0.20	6.67	2.60
Retail	8,288,005,858	649	1.08	36.59	6.37
Total	22,650,770,009	1,525	2.94	100.00	

Source: Morningstar Credit Ratings, LLC

Table 3 – Trailing 12-Month Delinquency by Property Type (as a Percentage of Property Type Balance)

Property Type	Sep-17	Aug-17	Jul-17	Jun-17	May-17	Apr-17	Mar-17	Feb-17	Jan-17	Dec-16	Nov-16	Oct-16
Healthcare	2.08	2.08	2.08	2.04	2.03	2.04	2.03	2.01	1.98	1.96	2.19	2.57
Hotel	3.50	3.27	3.61	3.30	3.31	3.17	3.49	2.99	3.00	2.99	3.23	3.29
Industrial	5.29	5.07	5.47	5.68	5.69	5.63	5.56	4.88	4.91	4.64	4.55	4.79
Multifamily	0.45	0.48	0.43	0.61	0.46	0.42	0.43	0.50	0.56	0.44	0.45	0.55
Office	6.42	6.78	6.71	6.75	6.60	7.20	6.61	6.71	6.33	6.24	6.02	5.79
Other	2.60	2.69	3.14	3.71	3.30	3.79	3.35	3.01	2.76	2.68	2.76	2.72
Retail	6.37	6.45	6.37	6.32	6.34	5.91	5.72	5.52	5.58	5.78	5.68	5.77

Source: Morningstar Credit Ratings, LLC

Geography

- The top three states ranked by delinquency exposure, Virginia, California, and Illinois, accounted for a combined 19.0% of CMBS delinquencies through September. Virginia has a high 7.5% delinquency rate primarily because of the weak office market near Washington, D.C.
- The 10 largest states by delinquent unpaid principal balance reflect 47.2% of CMBS delinquency, while the 10 largest states by active CMBS exposure reflect 56.0% of the CMBS universe.
- The 10 largest metropolitan statistical areas by delinquent unpaid principal balance reflect 29.8% of CMBS delinquency, while the 10 largest MSAs by active CMBS exposure reflect 35.8% of the CMBS universe. Across the 10 largest MSAs, Washington, D.C., Chicago, and Philadelphia report the highest delinquency rates as a percentage of all CMBS.

Table 4 - Delinquency by State

State	\$ Current Balance	# Loans	% of CMBS Universe	% of CMBS Delinq.	% of State Exposure
Virginia	1,844,302,891	58	0.24	8.14	7.53
California	1,429,441,625	79	0.19	6.31	1.59
Illinois	1,026,096,931	87	0.13	4.53	4.33
Ohio	1,015,938,580	85	0.13	4.49	5.91
Texas	992,402,495	134	0.13	4.38	1.45
Pennsylvania	980,881,060	59	0.13	4.33	5.29
New York	954,433,882	76	0.12	4.21	1.02
Florida	947,335,916	90	0.12	4.18	2.18
New Jersey	836,873,971	40	0.11	3.69	4.96
Connecticut	671,610,171	29	0.09	2.97	9.14
Total	10,699,317,522	737	1.39	47.23	

Source: Morningstar Credit Ratings, LLC

Table 5 – Delinquency by MSA

MSA	\$ Current Balance	# Loans	% of CMBS Universe	% of CMBS Delinq.	% of Total MSA
Washington, D.C.	2,197,594,597	51	0.29	9.70	7.19
Chicago	852,753,649	67	0.11	3.76	4.27
Philadelphia	560,115,620	41	0.07	2.47	4.27
Las Vegas	527,744,348	36	0.07	2.33	5.02
St. Louis	475,512,105	17	0.06	2.10	11.02
Detroit	434,266,751	27	0.06	1.92	4.93
Southwestern Connecticut	433,278,926	10	0.06	1.91	11.96
Atlanta	432,653,937	28	0.06	1.91	2.49
Phoenix	429,321,177	30	0.06	1.90	3.70
Central New Jersey	412,251,216	15	0.05	1.82	7.75
Total	6,755,492,326	322	0.89	29.82	

Source: Morningstar Credit Ratings, LLC

Delinquency by Vintage

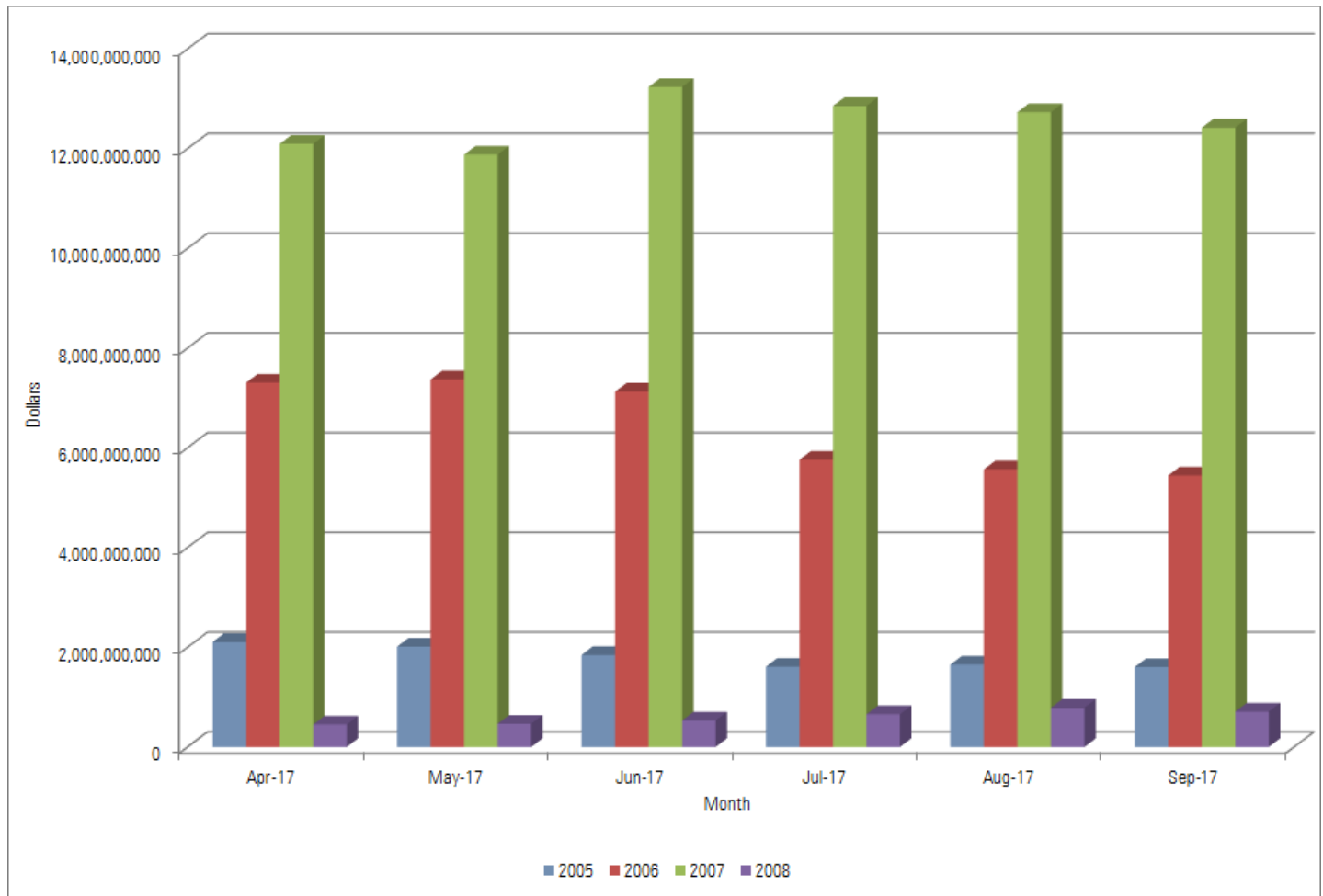
- While legacy CMBS now accounts for less than 7.0% of the overall universe, delinquencies from deals issued from 2005 through 2008 represent 89.1% of all delinquencies by balance
- Comparatively, delinquencies from deals issued from 2012 through 2015 contribute 7.1% of all delinquencies and represent 0.2% of the CMBS universe.

Table 6 - Delinquency by Year of Issuance

Year	\$ Total Year	# Loans	% of CMBS Universe	% of CMBS Delinq.
2007 Total	12,418,467,777	766	1.61	54.83
2006 Total	5,443,777,892	309	0.71	24.03
2005 Total	1,601,237,537	87	0.21	7.07
2008 Total	708,357,050	53	0.09	3.13
2014 Total	563,885,164	62	0.07	2.49
2015 Total	560,429,965	40	0.07	2.47
2013 Total	319,834,736	38	0.04	1.41
2004 Total	275,483,288	26	0.04	1.22
2012 Total	168,283,807	19	0.02	0.74
2001 Total	147,763,466	5	0.02	0.65
Total	22,207,520,682	1,405	2.88	98.04

Source: Morningstar Credit Ratings, LLC

Chart 5 – Monthly Delinquent Unpaid Balance for 2005-08 Vintage Transactions



Source: Morningstar Credit Ratings, LLC

Special-Servicing Exposure

While the special-servicing unpaid principal balance edged up \$134.9 million to \$25.67 billion, the percentage of loans in special servicing fell to 3.37%, the lowest since 2009. Special-servicing transfers include 15 postcrisis loans totaling \$375.3 million, including the \$141.8 million Westside Pavilion loan, the largest loan in WFCM 2012-LC5. The loan was transferred to special servicing after the debt service coverage ratio dipped below 1.00x for the first six months of 2017. Collateral anchor Nordstrom, which occupies 25.8% of the leasable space, closed in October, dropping occupancy roughly 30% below its underwritten level. The sponsor, The Macerich Partnership, L.P., is planning a major redevelopment of the mall that would tear down its front walls to expose walkable, ground-level shopping. With the planned renovations and the strong location in West Los Angeles, we do not expect a loss on this loan. Our \$161.9 million value is based on a discounted cash flow using a 6.5% capitalization rate and a 9.5% discount rate.

After the previously mentioned Charleston Town Center loan, the \$80.0 million Bangor Mall loan in MSC 2007-IQ16 was the largest legacy-era loan transferred. Backed by a 654,314-square-foot regional mall in Bangor, Maine, the loan was transferred to the special servicer for maturity default even though the cash flow remains relatively stable. The loss of the Macy's anchor and the lack of amortization over the loan term likely contributed to the default. The loan's sponsor, Simon Property Group, may seek to modify the loan; however, this could still result in a longer-term loss if there is an A/B note split or some writedown of the mortgage. Our valuation is less than the loan balance and if the property is taken back in foreclosure, there could be a loss when the asset is liquidated. Our \$66.6 million value is based on a discounted cash flow analysis, assuming the property has stabilized occupancy of 80% at the in-place rent. Our cap rate is 10% and the discount rate is 13%.

In Table 7, we summarize newly transferred specially serviced loans over the past three months. Most of the transferred loans were securitized in 2007, reflecting the difficulty that many borrowers face in refinancing.

Table 7 - Monthly Special-Servicing Transfers by Vintage Over the Past Three Months

July-17			August-17			September-17		
Year Issued	# of Loans	Current Balance (\$)	Year Issued	# of Loans	Current Balance (\$)	Year Issued	# of Loans	Current Balance (\$)
2016	1	3,037,535	2016	2	13,459,703	2016	1	6,776,121
2014	6	60,954,017	2014	5	200,704,193	2015	3	47,165,394
2013	4	726,191,356	2013	2	27,209,415	2014	3	39,621,018
2012	1	8,114,050	2012	5	58,843,072	2013	3	26,552,878
2008	4	99,211,941	2008	6	64,579,371	2012	5	255,181,153
2007	40	352,096,163	2007	37	356,569,555	2008	3	21,829,979
2006	1	5,200,000	2006	2	30,582,530	2007	27	411,242,104
2005	2	133,416,868	2005	1	11,095,328	2006	3	41,382,641
Total	59	1,388,221,930	Total	60	763,043,167	2005	1	8,437,773
						Total	49	858,189,061

Source: Morningstar Credit Ratings, LLC

Table 8 – Trailing 12-Month Special-Servicing Exposure

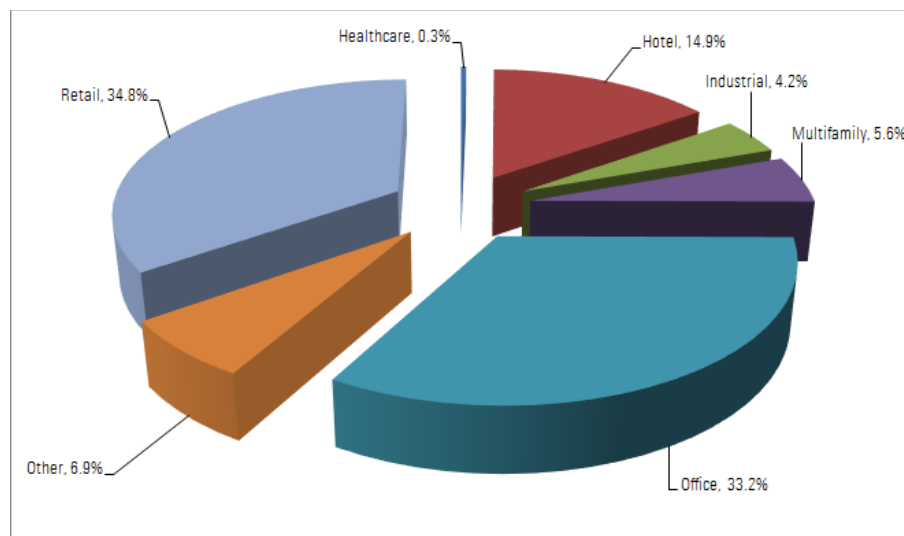
Month	<u>All Specially Serviced</u>		<u>Loans Current but with the Special Servicer</u>		<u>Delinquent and Specially Serviced</u>	
	\$ UPB*	% of CMBS	\$ UPB*	% of CMBS	\$ UPB*	% of CMBS
Sep-17	25.67	3.37	3.86	0.51	21.81	2.86
Aug-17	25.54	3.40	3.63	0.48	21.91	2.92
Jul-17	26.22	3.51	4.03	0.54	22.19	2.97
Jun-17	26.74	3.51	3.07	0.40	23.67	3.10
May-17	26.95	3.53	4.09	0.54	22.86	2.99
Apr-17	27.30	3.62	4.83	0.64	22.48	2.98
Mar-17	27.72	3.65	5.23	0.69	22.49	2.96
Feb-17	28.07	3.64	5.56	0.72	22.51	2.92
Jan-17	27.76	3.58	5.43	0.70	22.33	2.88
Dec-16	28.49	3.61	5.71	0.72	22.78	2.89
Nov-16	28.34	3.62	5.84	0.75	22.50	2.87
Oct-16	28.75	3.68	5.93	0.76	22.82	2.92
Sep-16	29.10	3.69	7.13	0.91	21.97	2.79

*Figures in billions.

Source: Morningstar Credit Ratings, LLC

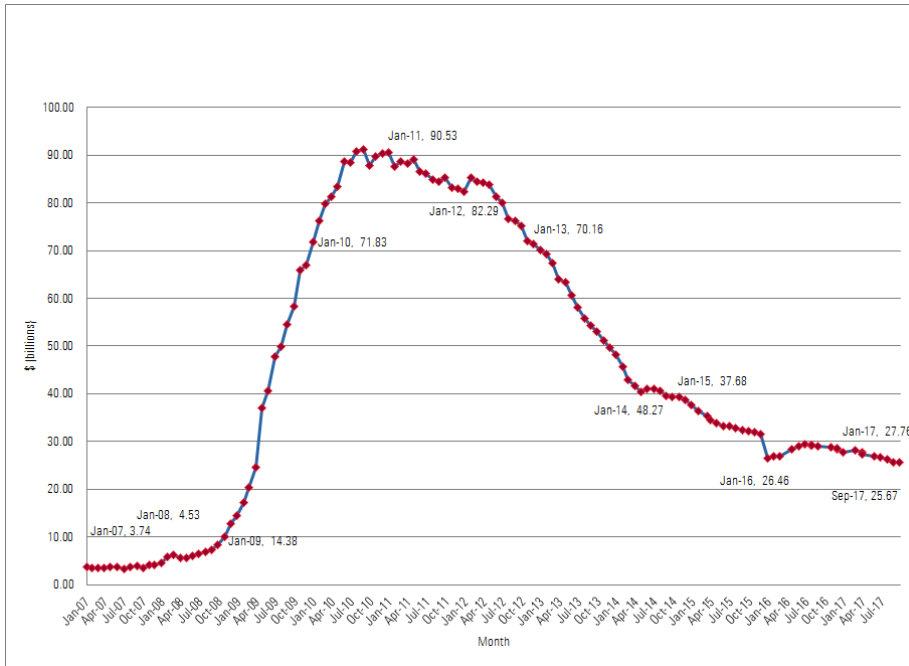
Special-servicing exposure by property type is heavily weighted to office and retail collateral at a combined 68.0% of all specially serviced loans. Property-type exposure for specially serviced loans is reflected in Chart 6 below. Special-servicing exposure by unpaid principal balance and percentage are shown in Charts 7 and 8.

Chart 6 – Special-Servicing Exposure by Property Type



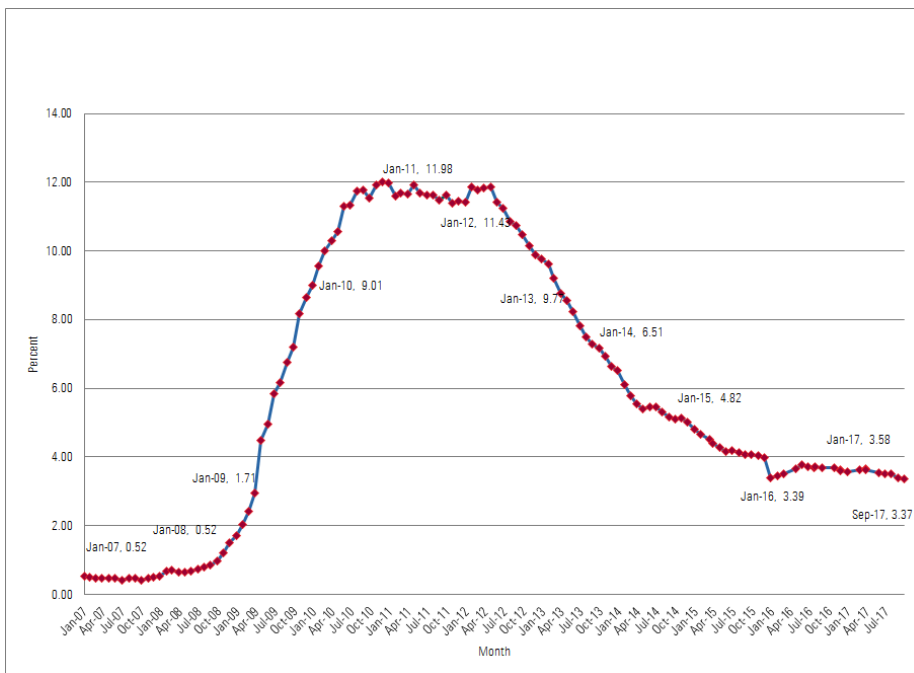
Source: Morningstar Credit Ratings, LLC

Chart 7 – Special-Servicing Exposure by Unpaid Principal Balance (\$ Billions): January 2007 Through September 2017



Source: Morningstar Credit Ratings, LLC

Chart 8 – Special-Servicing Exposure as a Percentage of Outstanding CMBS: January 2007 Through September 2017



Source: Morningstar Credit Ratings, LLC

Monthly CMBS Liquidations

Liquidation volume fell for the second consecutive month, as 53 loans totaling \$533.5 million were disposed in September. The overall loss severity remained below 40% for the second straight month, rising to 39.2% from 37.4% in August, but it remains in line with the 12-month moving average of 38.2%. This year's liquidated balance through September of \$11.18 billion is about 24% higher than the same period last year, while the average severity is nearly seven percentage points lower over the same period.

By property type, retail loans incurred the largest disposed balance, resulting in \$127.8 million in realized losses, which includes the \$72.2 million City View Center loan in MSC 2007-IQ14, which incurred a 100.0% loss and represented about 34.5% of September's losses. The Garfield Heights, Ohio shopping center's performance deteriorated after environmental issues tied to the property surfaced, which triggered numerous vacancies as occupancy tumbled to 18.0% prior to liquidation from 100.0% at underwriting.

Table 9 – Monthly CMBS Liquidations and Average Loss Severity, January 2016 to September 2017

Month	\$ Balance Before Loss	\$ Loss Amount	% Average Loss
Sep-17	533,527,436	209,368,904	39.24
Aug-17	610,858,538	228,491,708	37.41
Jul-17	1,560,763,756	823,178,893	52.74
Jun-17	1,450,209,480	522,821,516	36.05
May-17	1,259,755,193	282,252,323	22.41
Apr-17	1,018,377,414	323,886,693	31.80
Mar-17	1,991,883,471	518,983,136	26.05
Feb-17	1,189,337,215	506,872,321	42.62
Jan-17	1,568,165,195	854,266,015	54.48
Dec-16	743,282,289	280,605,800	37.75
Nov-16	1,020,756,182	402,143,292	39.40
Oct-16	945,404,049	360,450,297	38.13
Sep-16	767,162,029	346,084,968	45.11
Aug-16	792,898,116	407,117,999	51.35
Jul-16	1,028,830,036	286,623,469	27.86
Jun-16	886,380,677	445,845,542	50.30
May-16	1,049,586,866	301,750,088	28.75
Apr-16	726,273,080	172,920,252	23.81
Mar-16	548,936,624	323,666,454	58.96
Feb-16	716,846,065	253,359,492	35.34
Jan-16	2,502,793,546	1,504,021,982	60.09

Source: Morningstar Credit Ratings, LLC

Table 10 – Average Loss Severities by Property Type for September: All Liquidated Loans

Property Type	\$ Balance Before Loss	\$ Loss Amount	% Loss	# of Loans
Hotel	14,069,311	2,204,784	15.7	2
Industrial	9,671,721	4,907,474	50.7	3
Multifamily	33,828,561	3,342,719	9.9	6
Office	131,559,580	61,272,254	46.6	13
Other	55,259,867	9,864,027	17.9	4
Retail	289,138,396	127,777,646	44.2	25
Total	533,527,436	209,368,904	39.2	53

Source: Morningstar Credit Ratings, LLC

Table 11 – Average Loss Severities by Property Type for 2017: All Liquidated Loans

Property Type	\$ Balance Before Loss	\$ Loss Amount	% Loss	# of Loans
Hotel	931,296,723	445,321,369	47.8	46
Industrial	295,045,085	160,022,951	54.2	30
Multifamily	723,395,377	144,622,454	20.0	68
Office	5,223,004,819	1,619,519,119	31.0	188
Other	892,010,302	160,964,136	18.1	39
Retail	3,118,125,390	1,717,972,173	55.1	230
Total	11,182,877,696	4,248,422,202	38.0	601

Note: Totals may not add up to Table 9 year-to-date 2017 totals because of prior-month adjustments.

Source: Morningstar Credit Ratings, LLC

Retail and office loans continue to represent the bulk of losses, accounting for 90.3% of September losses and 78.6% of year-to-date losses. Multifamily loans, with 6.5% of the year-to-date liquidated unpaid principal balance, accounted for just 3.4% of year-to-date losses. Multifamily also has the lowest average year-to-date loss severity among the five major property types at 20.0%, as shown in Table 11.

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