

CLO Snapshot

Performance Summary Covering Morningstar-Rated CLOs

Third-Quarter 2019

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Deal Performance

Across the 51 publicly rated collateralized loan obligations that this snapshot captures, Morningstar Credit Ratings (DBRS Morningstar) observed 28 transactions that experienced a decrease in overcollateralization (OC) quarter-over-quarter. The OC declines were marginal, ranging from as low as 0.03% to as high as 0.94%. Defaulted assets primarily drove OC drops for several deals, while for others, the decline was attributed to management trading. Meanwhile, 19 transactions experienced OC increases, mostly by only a handful of basis points but some in double-digits and as high as 0.60%. The average OC change in the third quarter of 2019 was -0.04%, compared with -0.07% in the second quarter.

Declines were less frequent in terms of interest coverage (IC). Indeed, roughly 84% of the Morningstar sample experienced an increase in interest coverage. While IC increases were widely distributed, with values as low as 0.45% and as high as 26.16%, most increases were in the 1% to 10% range. It's worth noting that some of the transactions may still be in their ramp-up period. Four transactions (CBAM 2018-5, Galaxy XX CLO, Maranon Loan Funding 2018-1, and Buckhorn Park CLO), saw IC declines ranging from 0.64% to 4.32%. However, this is not a cause for concern because the current values are well above trigger levels. If an IC or OC test fails, proceeds are usually diverted from the waterfall to pay down principal balances in order to restore the minimum thresholds. The average IC change was 4.88%, a marginal increase from the 4.77% average reported in the second quarter. Nonetheless, all sampled deals passed their respective IC and OC tests this quarter.

Deals With Declining OC

Deal Name	Quarter-Over-Quarter Change (%)
Hempstead II CLO	-0.94
KKR CLO 11	-0.42
KKR CLO 9	-0.29
KKR CLO 21	-0.28
Octagon Investment Partners 24	-0.26
CBAM 2018-8	-0.21
Parallel 2018-2	-0.18
KKR CLO 19	-0.16
Apidos CLO XXV	-0.10
Ares XXXIR CLO	-0.09
AIG CLO 2018-1	-0.08
CBAM 2018-6	-0.08
Salem Fields CLO	-0.07
CBAM 2017-1	-0.06
CBAM 2018-5	-0.06
CBAM 2018-7	-0.06
CBAM 2017-2	-0.06
Bain Capital Credit CLO 2018-2	-0.05
ICG US CLO 2017-2	-0.05
Bain Capital Credit CLO 2017-1	-0.04
THL Credit Wind River 2017-2 CLO	-0.04
HPS Loan Management 9-2016	-0.04
Allegro CLO V	-0.03
Ares XLVI CLO	-0.03
Mariner CLO 6	-0.03
Octagon Investment Partners 28	-0.03
Peaks CLO 3	-0.03
Race Point X CLO	-0.03

Note: Calculations based on lowest publicly rated tranche recording OC.
Source: Intex

Deals With Declining IC

Deal Name	Quarter-Over-Quarter Change (%)
CBAM 2018-5	-4.32
Galaxy XX CLO	-2.32
Maranon Loan Funding 2018-1	-1.37
Buckhorn Park CLO	-0.64

Note: Calculations based on lowest publicly rated tranche recording IC.
Source: Intex

Collateral Quality, Adjustment, and Break-Even CDR Analysis

Deal Name	WARF	WARF Adj.	Diversity	Diversity Adj.	Manager Adj.	Additional Adj. ¹	Adj. Target BE CDR (AAA) ²	Class A BE CDR ³
AIG CLO 2018-1	2858	1.05	80.00	1.00	1.00	1.00	16.81	26.02
AIG CLO 2019-1	2847	1.05	78.00	1.01	1.00	1.00	16.85	24.60
Allegro CLO V	3038	1.12	75.00	1.02	1.00	1.00	18.16	22.79
Allegro CLO IX	2951	1.08	75.00	1.02	1.00	1.00	17.64	22.50
Apidos CLO XXV	2811	1.03	90.00	0.97	1.00	1.00	16.06	22.75
Ares XXXIR CLO	2974	1.09	85.00	0.98	0.95	1.00	16.37	26.93
Ares XLVI CLO	2996	1.10	82.00	0.99	0.95	1.00	16.64	29.25
Auburn CLO	2830	1.04	69.00	1.04	1.00	1.00	17.27	22.49
Bain Capital Credit CLO 2017-1	2817	1.04	92.00	0.97	1.00	1.00	16.00	23.60
Bain Capital Credit CLO 2018-2	2809	1.03	94.00	0.96	1.00	1.00	15.87	24.64
Barings Middle Market CLO 2018-I	N/A	N/A	N/A	N/A	1.00	1.00	N/A	36.93
Benefit Street Partners CLO XI	2790	1.03	91.00	0.97	1.00	1.00	15.89	22.12
Benefit Street Partners CLO XV	2814	1.03	85.00	0.98	1.00	1.00	16.30	22.42
Buckhorn Park CLO	2877	1.06	64.00	1.06	0.95	1.00	17.00	26.43
CBAM 2017-1	2725	1.00	70.00	1.03	1.00	1.00	16.57	25.48
CBAM 2017-2	2757	1.01	70.00	1.03	1.00	1.00	16.77	21.99
CBAM 2018-5	2685	0.99	67.00	1.05	1.00	1.00	16.51	21.74
CBAM 2018-6	2670	0.98	69.00	1.04	1.00	1.00	16.30	21.41
CBAM 2018-7	2637	0.97	64.00	1.06	1.00	1.00	16.40	21.36
CBAM 2018-8	2770	1.02	61.00	1.07	1.00	1.00	17.44	21.60
CBAM 2019-9	2728	1.00	60.00	1.07	1.00	1.00	17.24	20.69
Dryden 47 Senior Loan Fund	2887	1.06	98.00	0.95	0.95	1.00	15.34	25.05
Dryden 61 CLO	2773	1.02	96.03	0.96	0.95	1.00	14.80	21.88
Galaxy XX CLO	2953	1.09	81.00	1.00	1.00	1.00	17.32	21.89
Guggenheim MM CLO 2018-1	N/A	N/A	34.00	1.24	1.00	1.00	N/A	42.30
Hayfin Kingsland VIII	2951	1.08	70.00	1.03	1.00	1.00	17.95	23.44
Hempstead II CLO	2968	1.09	76.00	1.01	1.00	1.00	17.68	23.02
HPS Loan Management 9-2016	2705	0.99	74.00	1.02	1.00	1.00	16.22	26.18
ICG US CLO 2017-2	2866	1.05	72.00	1.03	1.00	1.00	17.31	23.14
ICG US CLO 2018-3	2792	1.03	70.00	1.03	1.00	1.00	16.98	22.30
Jamestown CLO X	2758	1.01	82.00	0.99	1.00	1.00	16.12	21.17
Jamestown CLO VI-R	2853	1.05	86.00	0.98	1.00	1.05	17.31	22.87
KKR CLO 9	3091	1.14	78.00	1.01	1.00	1.00	18.30	23.14
KKR CLO 11	2933	1.08	78.00	1.01	1.00	1.00	17.36	22.22
KKR CLO 19	2902	1.07	75.00	1.02	1.00	1.00	17.35	22.56
KKR CLO 21	2920	1.07	75.00	1.02	1.00	1.00	17.46	22.25
Magnetite XXI	2740	1.01	80.00	1.00	0.95	1.00	15.31	17.93
Maranon Loan Funding 2018-1	N/A	N/A	N/A	N/A	1.00	1.00	N/A	41.89
Maranon Loan Funding 2019-1	N/A	N/A	N/A	N/A	1.00	1.00	N/A	40.85
Mariner CLO 6	2728	1.00	75.00	1.02	1.00	1.00	16.31	23.88
Mercer Field II CLO	2992	1.10	73.00	1.02	1.00	1.00	18.01	23.25
Octagon Investment Partners 24	2813	1.03	84.00	0.99	0.98	1.00	15.94	23.88
Octagon Investment Partners 28	2675	0.98	86.00	0.98	0.98	1.00	15.07	23.23
Parallel 2018-2	2751	1.01	78.55	1.00	1.00	1.00	16.26	20.21
Peaks CLO 3	3024	1.11	58.00	1.08	1.00	1.00	19.28	41.66
Race Point X CLO	2912	1.07	93.00	0.96	1.00	1.00	16.50	24.74
Salem Fields CLO	2747	1.01	70.00	1.03	1.00	1.00	16.71	23.28
THL Credit Wind River 2016-2 CLO	2922	1.07	83.00	0.99	1.00	1.00	17.03	22.74
THL Credit Wind River 2017-2 CLO	2963	1.09	76.00	1.01	1.00	1.00	17.65	22.09
Voya CLO 2016-4	2918	1.07	94.00	0.96	0.95	1.00	15.66	22.55
Voya CLO 2017-4	2771	1.02	92.00	0.97	0.95	1.00	14.95	25.27

¹ Additional adjustments are made to account for unknown portfolio or structure characteristics, assuming worse-than-average portfolio characteristics.

² Adjusted Target Break-Even CDR = Base-Case Target CDR*WARF Adjustment*Diversity Adjustment*Manager Adjustment*Additional Adjustment.

³ Calculation based on a AAA stressed forward high interest rate curve, with a base case CDR of 16.00 multiplied by all adjustments.

Note: Results are based on Intex CDI/CDU files with interest rates as of September 30, 2019.

Most transactions passed the collateral quality tests, such as Weighted Average Rating Factor (WARF), Weighted Average Spread (WAS), Diversity, and Weighted Average Recovery Rate. However, six transactions failed their WARF or WAS tests, as the table below shows.

Deals With Collateral Quality Failures in the Third Quarter of 2019

Deal Name	Test	Actual			Threshold		
		September	August	July	September	August	July
Allegro CLO V	Weighted Average Rating Factor	3038	2967	2976	2917	2917	2924
ICG US CLO 2017-2	Weighted Average Rating Factor	2866	2871	2913	2849	2849	2849
KKR CLO 9	Weighted Average Rating Factor	3091	3124	3111	3061	3067	3067
THL Credit Wind River 2017-2 CLO	Weighted Average Rating Factor	2963	3001	2967	2904	2911	2911
Voya CLO 2016-4	Weighted Average Rating Factor	2918	2879	2868	2548	2548	2548
Voya CLO 2016-4	Weighted Average Spread	3.17	3.29	3.40	3.46	3.46	3.46

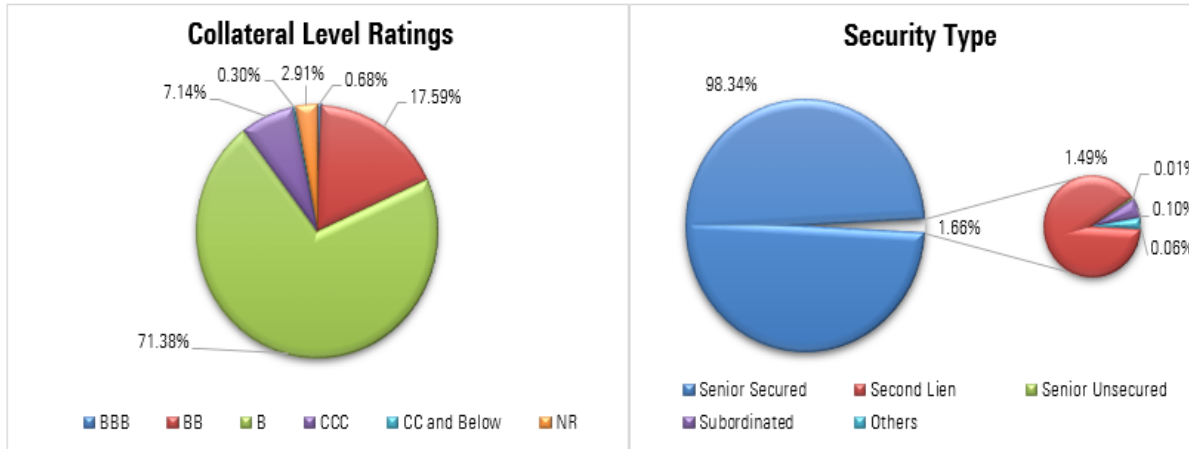
Source: Intex

Second-Lien and Covenant-Lite Loans

The percentage of second-lien loans in the collateral pool remained below the threshold value for all transactions in our sample. Broadly syndicated loan CLOs generally have a 10% cap for second-lien loans, whereas middle market loan CLO thresholds can vary. Peaks CLO 3 had a significantly higher percentage of second-lien loans than the rest of the sample, with its September value reported at 10.9%, but was still below its 15% cap. It's not unusual for middle market loan CLOs to have relatively higher second-lien caps than those for broadly syndicated loan CLOs. Second-lien loans have a lower priority of repayment in the event of a borrowing entity's bankruptcy and eventually, liquidation.

The elevated level of covenant-lite loans in portfolios remains a concern among investors. However, the absence of a universally used standard definition of covenant-lite across deals may result in some deviations in actual covenant-lite exposure. Nonetheless, all transactions in our sample reported covenant-lite values within set limits despite most transactions reporting increases in covenant-lite exposure. Dryden 47 Senior Loan Fund had the highest percentage of covenant-lite loans in its collateral, at 88.6%, followed by Ares XXXIR CLO at 82.7%, Ares XLVI CLO at 82.6%, Octagon Investment Partners 28 at 81.0%, and HPS Loan Management 9-2016 at 77.7%. These five transactions were materially higher than the covenant-lite proportions in other CLOs in the sample, with the next highest being approximately 56.4% and the median at 19.0%. DBRS Morningstar will continue to monitor the trend of increasing proportions of less creditworthy borrowers gaining access to the market, along with potentially lower recovery rates.

Collateral Level Ratings and Security Type



Source: Intex

Ratings Distribution

The ratings composition of the underlying collateral was mostly rated B- and above (90%)—slightly lower than it was in the second quarter. Ratings at the CCC or below level accounted for about 7% at the end of September, an increase from the 5% reported at the end of June. DBRS Morningstar looks at the CCC exposure in aggregate, without exclusivity to any rating agency.

Most CLOs in our sample allow for a maximum of 7.5% of such loans. Collateral in the CCC bucket remained below the threshold for all transactions, except for Salem Fields CLO, whose value reached 8.7% in September and therefore breached its cap.

Leveraged Loan Defaults

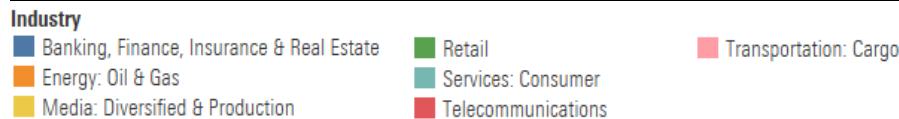
The number of leveraged loan defaults was nearly unchanged in the third quarter, with 23 transactions having underlying loan defaults in their portfolios, compared with 22 in the prior quarter. However, the total defaulted value rose to \$93.14 million in September, up from \$80.34 million in June. The telecommunications and consumer services sectors accounted for most of the leveraged loan defaults, but the oil & gas and retail sectors have also experienced increasing defaults as the economy has weakened.

Leveraged Loan Default Holdings by Deal – September 2019

Deal Name	Defaulted Loan Amount (\$)	Total Asset Amount (\$)	%
CBAM 2018-7	9,625,000	749,005,207	1.29
Maranon Loan Funding 2018-1	5,782,013	587,212,197	0.98
Hempstead II CLO	5,017,727	572,898,949	0.88
CBAM 2017-1	9,615,101	1,235,540,466	0.78
CBAM 2017-2	12,000,241	1,554,449,307	0.77
KKR CLO 9	3,727,208	500,170,530	0.75
KKR CLO 11	4,102,545	551,204,705	0.74
CBAM 2018-5	7,057,634	991,109,093	0.71
CBAM 2018-6	7,057,634	991,531,713	0.71
CBAM 2018-8	2,890,824	492,204,740	0.59
Jamestown CLO VI-R	3,953,149	752,401,946	0.53
CBAM 2019-9	3,086,445	600,004,900	0.51
Race Point X CLO	1,995,409	404,189,711	0.49
Dryden 47 Senior Loan Fund	3,447,936	702,745,601	0.49
KKR CLO 21	2,953,728	603,326,651	0.49
KKR CLO 19	2,553,630	52,863,1277	0.48
Apidos CLO XXV	2,037,113	695,108,388	0.29
Jamestown CLO X	1,604,201	616,196,072	0.26
Octagon Investment Partners 24	2,113,031	848,803,443	0.25
THL Credit Wind River 2016-2 CLO	1,034,600	649,609,453	0.16
Benefit Street Partners CLO XV	624,913	502,195,509	0.12
Benefit Street Partners CLO XI	436,709	606,836,363	0.07
Octagon Investment Partners 28	419,347	690,325,393	0.06

*Note: Leveraged loan defaults identified in Intex.

Leveraged Loan Default Holdings as of Third-Quarter 2019

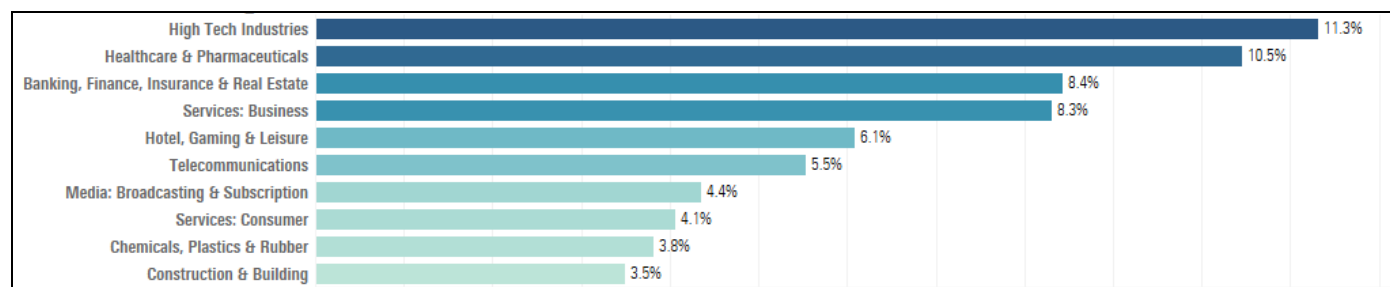


*Notes: Leveraged loan defaults identified in Intex.

Industry Distribution

The underlying collateral in the Morningstar sample spread across a wide variety of different sectors, with the top 10 of them accounting for two-thirds of the total collateral par. The top three sectors—namely, high tech industries, healthcare and pharmaceuticals, and banking, finance, insurance & real estate—each accounted for approximately 8.4% to 11.3%.

Top 10 Industries



Source: Intex

Background

DBRS Morningstar’s CLO Snapshot is a quarterly report of key trends and metrics across CLOs that Morningstar Credit Ratings publicly rates for which at least one month’s performance data is available. The report gives market participants summarized asset-level information and deal statistics on such CLOs.

Related Research

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