

RESEARCH / WHITEPAPER

12 APRIL 2016

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CLO Rankings by Vintage (updated as of March 31, 2016)

Any ranking system of structured finance instruments is generally subject to some level of subjectivity. When ranking CLO's, for example, does one look primarily to equity performance, performance of the notes or performance of the collateral? If the methodology is a blend, how does one weigh the various measures? Any attempt to "rank" CLO's is just one of many alternative methods to provide such scoring. Alternative methods would generally yield different results. Given the nature of any ranking system, the results should be interpreted appropriately.

In this report, Moody's Analytics has updated the prior deal rankings of the non-terminated 2005–2015 CLO's by vintage using a variety of scoring factors. 2015 US CLO's that have had at least two payment periods are included.¹ The ranking is a function of equity returns (with a slight emphasis on recent returns), the standard deviation of those returns, junior overcollateralization test cushion, the number of collateral quality tests which are failing, the Moody's WARF test cushion, the ratio of the market value of the collateral to the par value of the liabilities, annualized par building and the difference between Suspected Defaults² and current defaults, the average cushion of the Diversity Score, Moody's WARF, Weighted Average Life and Weighted Average Recovery Rate tests.³

These multiple factors are the basis of the ranking to better balance the debt and equity performance. (The Moody's Analytics MESR⁴ is an equity based ranking of CLO's.) The analysis includes over 800 US CLO's and about 170 European deals. The frequency a manager shows up is a function of the performance and the number of CLO's they manage as well as which CLO's have not been redeemed. Strongly performing CLO's may have been redeemed which is more likely to affect CLO 1.0's. We list the top CLO's for each vintage alphabetically.

1 There were not enough qualified Euro CLO's to make the 2015 ranking useful. Only the top five 2015 US CLO's were displayed. The data is taken from Monthly Surveillance reports as of March 31, 2016

2 See "[Collateral Defaults vs Issuer Defaults](#)" 6-19-15.

3 The cushions were normalized to reflect the typical numerical difference between a Diversity Cushion and a WARF Cushion, for example. In order to mitigate any unusual results from highly amortized CLO's, the deal factor was incorporated into the analysis.

4 Moody's Analytics Equity Score Report CDO Deal Summary Performance as of April 7, 2016.

US BSL CLO's

With the limited number of CLO's in 2008 - 2010, these vintages are not included in the analysis and only 5 are displayed for 2005 and 2011 due to the limited number of outstanding CLO's from those vintages. Some of the manager ranking changes are a result of fewer deals displayed from these vintages. Additionally, the number of CLO 1.0's dropped by about 4% due to deal redemptions. The most frequently ranked managers of US broadly syndicated loan ("BSL") CLO's are CSAM and BlueMountain. BlueMountain is significantly more prominent than in the prior report. Again, CSAM has three of the top CLO's in 2006 and 2007. A few other managers have two CLO's within the top ten of any of vintage, but only CSAM and BlueMountain (2014) have three. CSAM is in the top group in five of the eight vintages. BlueMountain's 10 deals represent 67% of their non-terminated deals from the selected vintages. Apollo, MJX, Golub, LCM, Columbia and Symphony are also among the top performers with 3 deals within the top ten (or top five for 2005 & 2011) of the vintages. Six managers have at least two deals within the top in any one vintage. Six managers represent over 50% of the top ranked deals. For managers with at least four deals outstanding from the indicated vintages, BlueMountain, CSAM, Golub Capital and Feingold O'Keefe have at least 1/3 of their deals in the tables. Ten managers only have ranked 1.0 CLO's while nineteen have only 2.0 CLO's. There are 32 different managers out of 70 possible in the ranking and about 30% of the managers with at least two applicable CLO's are ranked. Twelve managers are no longer in the top group while six have been added since the last report⁵. Interestingly, 70% of the 2007 vintage top ten are from three managers which is more concentrated than any other vintage.

Deal Name	Vintage	Currency	Collateral Manager
Allegro CLO II, Ltd.	2015	USD	AXA Investment Managers
BlueMountain CLO 2014-4 Ltd.	2015	USD	BlueMountain Capital Management LLC
Cutwater 2015-I, Ltd.	2015	USD	Cutwater Investor Services
LCM XIX Limited Partnership	2015	USD	LCM Asset Management LLC
Madison Park Funding XVI, Ltd.	2015	USD	Credit Suisse Asset Management
Magnetite XIV, Limited	2015	USD	BlackRock Financial Management
MidOcean Credit CLO IV	2015	USD	MidOcean Credit Fund Management LP
Sound Point CLO VIII, Ltd.	2015	USD	Sound Point Capital Management LP
Venture XX CLO, Limited	2015	USD	MJX Asset Management LLC
ZAIS CLO 3, Limited	2015	USD	ZAIS Group Inc.

Deal Name	Vintage	Currency	Collateral Manager
ALM X, Ltd.	2014	USD	Apollo Credit Management LLC
Atrium XI	2014	USD	Credit Suisse Asset Management
BlueMountain CLO 2014-1 Ltd.	2014	USD	BlueMountain Capital Management LLC
BlueMountain CLO 2014-2, Ltd.	2014	USD	BlueMountain Capital Management LLC
BlueMountain CLO 2014-3 Ltd.	2014	USD	BlueMountain Capital Management LLC
CIFC Funding 2014-V, Ltd.	2014	USD	CIFC Asset Management LLC
Highbridge Loan Management 3-2014, Ltd.	2014	USD	Highbridge Principal Strategies LLC
Madison Park Funding XV, Ltd.	2014	USD	Credit Suisse Asset Management
Staniford Street CLO, Ltd.	2014	USD	Feingold O'Keefe
Zais CLO 1, Limited	2014	USD	ZAIS Group Inc.

⁵ The Prior report had 75 deals in the ranking vs. 70 currently ranked. See "[CLO Deal Rankings](#)" (updated January 2016).

Deal Name	Vintage	Currency	Collateral Manager
ALM VII(R), LTD.	2013	USD	Apollo Credit Management LLC
ALM VII(R)-2, Ltd.	2013	USD	Apollo Credit Management LLC
BlueMountain CLO 2013-2, Ltd.	2013	USD	BlueMountain Capital Management LLC
BlueMountain CLO 2013-3, Ltd.	2013	USD	BlueMountain Capital Management LLC
Carlyle Global Market Strategies 2013-2, LTD.	2013	USD	Carlyle Investment Management LLC
Catamaran CLO 2013-1 Ltd	2013	USD	Trimaran Advisors LLC
Kingsland VI	2013	USD	Kingsland Capital Management LLC
LCM XIV Limited Partnership	2013	USD	LCM Asset Management LLC
Longfellow Place CLO Ltd	2013	USD	Feingold O'Keefe
OZLM Funding IV, Ltd.	2013	USD	Och-Ziff Loan Management LP

Deal Name	Vintage	Currency	Collateral Manager
ALM VI, Ltd.	2012	USD	Apollo Credit Management LLC
ALM VII, LTD.	2012	USD	Apollo Credit Management LLC
Benefit Street Partners CLO I, Ltd.	2012	USD	Benefit Street Partners LLC
Bluemountain CLO 2012-1 Ltd.	2012	USD	BlueMountain Capital Management LLC
BlueMountain CLO 2012-2, Ltd.	2012	USD	BlueMountain Capital Management LLC
Carlyle Global Market Strategies CLO 2012-2, Ltd.	2012	USD	Carlyle Investment Management LLC
Golub Capital Partners CLO 11, Ltd.	2012	USD	Golub Capital Management LLC
Golub Capital Partners CLO 14, Ltd.	2012	USD	Golub Capital Management LLC
LCM XI LP	2012	USD	LCM Asset Management LLC
Voya CLO 2012-4, Ltd.	2012	USD	Voya Investment Management (ING)

Deal Name	Vintage	Currency	Collateral Manager
Atrium VII	2011	USD	Credit Suisse Asset Management
BlueMountain CLO 2011-1 Ltd.	2011	USD	BlueMountain Capital Management LLC
Galaxy XI CLO, Ltd.	2011	USD	PineBridge Investments LLC
Golub Capital Partners CLO 10, Ltd.	2011	USD	Golub Capital Management LLC
Madison Park Funding VII, Ltd.	2011	USD	Credit Suisse Asset Management

Deal Name	Vintage	Currency	Collateral Manager
Cent CDO 15 Limited	2007	USD	Columbia Management Investment Advisors, LLC
GoldenTree Loan Opportunities III, Limited	2007	USD	GoldenTree Asset Management LP
GoldenTree Loan Opportunities IV, Limited	2007	USD	GoldenTree Asset Management LP
Madison Park Funding IV, Ltd.	2007	USD	Credit Suisse Asset Management
Madison Park Funding V, Ltd.	2007	USD	Credit Suisse Asset Management
Madison Park Funding VI, Ltd.	2007	USD	Credit Suisse Asset Management
Newstar Commercial Loan Trust 2007-1	2007	USD	NewStar Financial
Symphony CLO III, Ltd.	2007	USD	Symphony Asset Management LLC
Symphony CLO V, Ltd.	2007	USD	Symphony Asset Management LLC
Venture VIII CDO, Limited	2007	USD	MJX Asset Management LLC

Deal Name	Vintage	Currency	Collateral Manager
Atrium V	2006	USD	Credit Suisse Asset Management
Blue Mountain CLO II Ltd.	2006	USD	BlueMountain Capital Management LLC
Cent CDO 12 Limited	2006	USD	Columbia Management Investment Advisors
Eaton Vance CDO VIII, Ltd.	2006	USD	Eaton Vance Management
Madison Park Funding II, Ltd.	2006	USD	Credit Suisse Asset Management
Madison Park Funding III, Ltd.	2006	USD	Credit Suisse Asset Management
Sands Point Funding Ltd.	2006	USD	Guggenheim Investment Management
Symphony CLO II, Ltd.	2006	USD	Symphony Asset Management LLC
Venture VII CDO Limited	2006	USD	MJX Asset Management LLC
Wasatch CLO Ltd.	2006	USD	Invesco Inc.

Deal Name	Vintage	Currency	Collateral Manager
Baker Street Funding 2005-1 CLO	2005	USD	Seix Investment Advisors LLC
Black Diamond CLO 2005-2	2005	USD	Black Diamond Capital Management LLC
Centurion CDO 9 Limited	2005	USD	Columbia Management Investment Advisors
KKR Financial CLO 2005-2, Ltd.	2005	USD	KKR Financial Advisors LLC
Venture V CDO Limited	2005	USD	MJX Asset Management LLC

Note: Unpriced loans are assumed to have a market price equal to the average of that type of loan in the market. Unpriced bonds are priced based upon seniority and if they are performing, while equity is essentially valued at zero. Outlying values for certain factors have been capped or floored. Reasonable approximations have been used where selected data fields are not reported.

Manager Frequency for US\$ CLO's by Vintage

Collateral Manager	2005	2006	2007	2011	2012	2013	2014	2015	Total
Credit Suisse Asset Management		3	3	2			2	1	11
BlueMountain Capital Management LLC		1		1	2	2	3	1	10
Apollo Credit Management LLC					2	2	1		5
MJX Asset Management LLC	1	1	1					1	4
Golub Capital Management LLC				1	2				3
LCM Asset Management LLC					1	1		1	3
Columbia Management Investment Advisors	1	1	1						3
Symphony Asset Management LLC		1	2						3
GoldenTree Asset Management LP			2						2
Carlyle Investment Management LLC					1	1			2
Feingold O'Keeffe						1	1		2
ZAIS Group Inc.							1	1	2
Sound Point Capital Management LP								1	1
NewStar Financial			1						1
MidOcean Credit Fund Management LP								1	1
CIFC Asset Management LLC							1		1
PineBridge Investments LLC				1					1
AXA Investment Managers								1	1
BlackRock Financial Management								1	1
Trimaran Advisors LLC						1			1
Cutwater Investor Services								1	1
Voya Investment Management (ING)					1				1
Och-Ziff Loan Management LP						1			1
Invesco Inc.		1							1
Seix Investment Advisors LLC	1								1
Kingsland Capital Management LLC						1			1
Eaton Vance Management		1							1
KKR Financial Advisors LLC	1								1
Benefit Street Partners LLC					1				1
Black Diamond Capital Management LLC	1								1
Highbridge Principal Strategies LLC							1		1
Guggenheim Investment Management LLC		1							1
Total	5	10	10	5	10	10	10	10	70

Euro CLO's

The same updated analysis was completed for Euro denominated CLO's. Since the European CLO market is much smaller, only the top five within each vintage is displayed. Several vintages were excluded given the limited number of issues in those years (2008- 2012). GSO/Blackstone is in the top group in four of the six vintages with about 21% of their Euro CLO's are in the top ranking. None of the managers have 2 CLO's in the top five in one vintage. As a proportion of CLO's outstanding from the selected vintages, Oak Hill, AXA, Prudential, Sankaty, PineBridge and Eaton Vance have the largest representation on the list for those managers with 2 of more Euro CLO's outstanding. There are 20 different managers in the ranking out of the 30 positions and seven managers represent over 50% of the total. Contrary to prior reports, only 20% of the managers in the European ranking are also in the US ranking. However, most of the Euro Managers also issue US CLO's. Seven managers only had 1.0 CLO's ranked while nine are only in the 2.0 CLO ranking. Six managers are now in the table and three are no longer in the top five for a vintage as compared to the January report.

Deal Name	Vintage	Currency	Collateral Manager
Aurium CLO I Limited	2015	EUR	Spire Partners LLP
Carlyle Global Market Strategies Euro CLO 2015-1 Limited	2015	EUR	Carlyle Investment Management LLC
Dartry Park CLO Limited	2015	EUR	GSO / Blackstone Debt Funds Management
Grosvenor Place CLO 2015-1 B.V.	2015	EUR	CQS Investment Management Ltd.
Rye Harbour CLO, Limited	2015	EUR	Sankaty Advisors Inc.

Deal Name	Vintage	Currency	Collateral Manager
BABSON EURO CLO 2014-2 B.V.	2014	EUR	Babson Capital Management LLC
Carlyle Global Market Strategies Euro CLO 2014-3 Limited	2014	EUR	Carlyle Investment Management LLC
Dryden 32 Euro CLO 2014 B.V.	2014	EUR	Prudential Investment Management Inc.
Halcyon Loan Advisors European Funding 2014 B.V.	2014	EUR	Halcyon Loan Investors LP
Harvest CLO IX Limited	2014	EUR	3i Group plc

Deal Name	Vintage	Currency	Collateral Manager
Ares European CLO VI B.V.	2013	EUR	Ares Management, LLC
Cairn CLO III B.V.	2013	EUR	Cairn Capital Ltd.
Dryden 29 Euro CLO 2013 B.V.	2013	EUR	Prudential Investment Management Inc.
Euro-Galaxy III CLO B.V.	2013	EUR	PineBridge Investments LLC
St. Paul's CLO III Limited	2013	EUR	Intermediate Capital Group plc

Deal Name	Vintage	Currency	Collateral Manager
Cordatus Loan Fund II P.L.C.	2007	EUR	CVC Credit Partners LLC
Harbourmaster CLO 9 B.V	2007	EUR	GSO / Blackstone Debt Funds Management
OAK HILL EUROPEAN CREDIT PARTNERS II P.L.C.	2007	EUR	Oak Hill Advisors LP
Queen Street CLO I B.V.	2007	EUR	Ares Management, LLC
Wood Street CLO VI B.V.	2007	EUR	Alcentra Inc.

Deal Name	Vintage	Currency	Collateral Manager
ADAGIO III CLO P.L.C.	2006	EUR	AXA Investment Managers
Duchess VI CLO B.V.	2006	EUR	Babson Capital Management LLC
Eaton Vance CDO VII PLC	2006	EUR	Eaton Vance Management
Harbourmaster CLO 7 B.V.	2006	EUR	GSO / Blackstone Debt Funds Management
OAK HILL EUROPEAN CREDIT PARTNERS I P.L.C.	2006	EUR	Oak Hill Advisors LP

Deal Name	Vintage	Currency	Collateral Manager
Adagio II CLO Plc	2005	EUR	AXA Investment Managers
Boyne Valley B.V.	2005	EUR	GSO / Blackstone Debt Funds Management
Cadogan Square CLO B.V.	2005	EUR	Credit Suisse Asset Management
Harvest CLO II S.A.	2005	EUR	3i Group plc
RMF Euro CDO III PLC	2005	EUR	Pemba Credit Advisers

Note: Unpriced loans are assumed to have a market price equal to the average of that type of loan in the market, unpriced bonds are priced based upon seniority and if they are performing while equity is essentially valued at zero. Outlying values for certain factors have been capped or floored. Reasonable approximations have been used where selected data fields are not reported.

Manager Frequency for Euro CLO's by Vintage

Collateral Manager	2005	2006	2007	2013	2014	2015	Total
GSO / Blackstone Debt Funds Management	1	1	1			1	4
Prudential Investment Management Inc.				1	1		2
Carlyle Investment Management LLC					1	1	2
Ares Management, LLC			1	1			2
Oak Hill Advisors LP		1	1				2
AXA Investment Managers	1	1					2
Babson Capital Management LLC		1			1		2
3i Group plc	1				1		2
Pemba Credit Advisers	1						1
Credit Suisse Asset Management	1						1
CQS Investment Management Ltd.						1	1
Spire Partners LLP						1	1
Alcentra Inc.			1				1
Eaton Vance Management		1					1
PineBridge Investments LLC				1			1
Cairn Capital Ltd.				1			1
Sankaty Advisors Inc.						1	1
Halcyon Loan Investors LP					1		1
Intermediate Capital Group plc				1			1
CVC Credit Partners LLC			1				1
Total	5	5	5	5	5	5	30

While no ranking system by definition is perfect, we offer a possible approach to viewing CLO performance which incorporates both the debt and the equity. In our analysis, the CLO's are ranked by a variety of factors beyond their equity returns in an effort to balance the interests of the equity with that of the debt investors. As a result, deals that ranked moderately in regards to equity returns, may jump up to make the above tables given their strength in other factors. Conversely, CLO's that ranked high solely based upon their equity returns, may drop out of the table through a combination of other issues. When analyzing CLO performance, the factors selected and relative weight one gives to the various factors will cause differing CLO's to be more attractive as buy or sell opportunities. Careful and complete analysis will highlight these differences.

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