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CLO Rankings by Vintage (February 2015)

Any ranking of structured finance instruments is subject to substantial subjectivity. When ranking CLOs, 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 weight the various measures. Any attempt to "rank" CLOs 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, any results should be interpreted carefully.

In this paper, Moody's Analytics has ranked the non-terminated 2005 – 2014 CLOs by vintage using a variety of scoring factors. 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 and the ratio of the market value of the collateral to the par value of the liabilities. These factors are included in the ranking to better balance the debt and equity performance. The analysis includes over 700 US CLOs and over 175 European deals. The frequency a manager shows up is a function of the performance and the number of CLOs they manage as well as which CLOs have not been redeemed. We list the top CLOs for each vintage alphabetically.

US CLOs

With the limited number of CLOs in 2008 - 2010, we elected not to include them in the analysis. The most frequently mentioned managers of US broadly syndicated loan CLOs are CSAM, Apollo and CVC. CSAM has three of the top CLOs in 2006 and 2007. Several other managers have two CLOs within the top ten of any one vintage, but no one else has three. CVC is strong in the CLO 1.0s. Apollo is in the top group in each CLO 2.0 vintage. Marathon is within the top ten in all but the 2011 vintage 2.0 CLOs. Ten managers have two deals within the top ten in any one vintage. There are 36 different managers in the list out of 70 possible in the list.

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| Deal Name | Vintage | Currency | Collateral Manager | | | |
|---|--|--|--|--|--|--|
| COA Summit CLO Ltd. | 2014 | USD | 3i Group plc | | | |
| ALM X, Ltd. | 2014 | USD | Apollo Credit Management LLC | | | |
| BlueMountain CLO 2013-4 Ltd. | 2014 | USD | BlueMountain Capital Management LLC | | | |
| BlueMountain CLO 2014-1 Ltd. | 2014 | USD | BlueMountain Capital Management LLC | | | |
| Staniford Street CLO, Ltd. | 2014 | USD | Feingold O'Keeffe | | | |
| Marathon CLO VI Ltd. | 2014 | USD | Marathon Asset Management LP | | | |
| Gallatin CLO VII 2014-1, Ltd. | 2014 | USD | MP Senior Credit Partners L.P. | | | |
| Regatta III Funding Ltd. | 2014 | USD | Napier Park Global Capital, LLC | | | |
| OZLM VI, Ltd. | 2014 | USD | Och-Ziff Loan Management LP | | | |
| Zais CLO 1, Limited | 2014 | USD | ZAIS Group Inc. | | | |
| | | | | | | |
| Deal Name | Vintage | Currency | Collateral Manager | | | |
| ACIS CLO 2013-2 Ltd. | 2013 | USD | Acis Capital Management, L.P. | | | |
| Shackleton 2013-IV CLO, Ltd | 2013 | USD | Alcentra Inc. | | | |
| ALM VII(R), LTD. | 2013 | USD | Apollo Credit Management LLC | | | |
| Atlas Senior Loan Fund III, Ltd. | 2013 | USD | Crescent Capital Group LP | | | |
| Longfellow Place CLO Ltd | 2013 | USD | Feingold O'Keeffe | | | |
| Halcyon Loan Advisors Funding 2013-1 Ltd. | 2013 | USD | Halcyon Loan Investors LP | | | |
| Marathon CLO V Ltd. | 2013 | USD | Marathon Asset Management LP | | | |
| OZLM Funding IV, Ltd. | 2013 | USD | Och-Ziff Loan Management LP | | | |
| OZLM Funding V, Ltd. | 2013 | USD | Och-Ziff Loan Management LP | | | |
| Octagon Investment Partners XVI, Ltd. | 2013 | USD | Octagon Credit Investors, LLC | | | |
| | | | | | | |
| | | | | | | |
| Deal Name | Vintage | Currency | Collateral Manager | | | |
| | Vintage 2012 | Currency USD | - | | | |
| ALM VI, Ltd. | 2012 | USD | Apollo Credit Management LLC | | | |
| ALM VI, Ltd. ALM VII, LTD. | 2012 2012 | USD USD | Apollo Credit Management LLC Apollo Credit Management LLC | | | |
| ALM VI, Ltd. ALM VII, LTD. Atrium VIII | 2012 2012 2012 | USD USD USD | Apollo Credit Management LLC Apollo Credit Management LLC Credit Suisse Asset Management | | | |
| ALM VI, Ltd. ALM VII, LTD. Atrium VIII Fortress Credit Funding V LP | 2012 2012 2012 2012 2012 | USD USD USD USD | Apollo Credit Management LLC Apollo Credit Management LLC Credit Suisse Asset Management Fortress Investment Group LLC | | | |
| ALM VI, Ltd. ALM VII, LTD. Atrium VIII Fortress Credit Funding V LP Fortress Credit Funding VI LP | 2012 2012 2012 2012 2012 2012 | USD USD USD USD USD | Apollo Credit Management LLC Apollo Credit Management LLC Credit Suisse Asset Management Fortress Investment Group LLC Fortress Investment Group LLC | | | |
| ALM VI, Ltd. ALM VII, LTD. Atrium VIII Fortress Credit Funding V LP Fortress Credit Funding VI LP Golub Capital Partners CLO 11, Ltd. | 2012 2012 2012 2012 2012 2012 2012 | USD USD USD USD USD USD | Apollo Credit Management LLC Apollo Credit Management LLC Credit Suisse Asset Management Fortress Investment Group LLC Fortress Investment Group LLC Golub Capital Management LLC | | | |
| ALM VI, Ltd. ALM VII, LTD. Atrium VIII Fortress Credit Funding V LP Fortress Credit Funding VI LP Golub Capital Partners CLO 11, Ltd. Halcyon Loan Advisors Funding 2012-1 Ltd. | 2012 2012 2012 2012 2012 2012 2012 2012 | USD USD USD USD USD USD USD | Apollo Credit Management LLC Apollo Credit Management LLC Credit Suisse Asset Management Fortress Investment Group LLC Fortress Investment Group LLC Golub Capital Management LLC Halcyon Loan Investors LP | | | |
| ALM VI, Ltd. ALM VII, LTD. Atrium VIII Fortress Credit Funding V LP Fortress Credit Funding VI LP Golub Capital Partners CLO 11, Ltd. Halcyon Loan Advisors Funding 2012-1 Ltd. Marathon CLO IV Ltd. | 2012 2012 2012 2012 2012 2012 2012 2012 | USD USD USD USD USD USD USD USD | Apollo Credit Management LLC Apollo Credit Management LLC Credit Suisse Asset Management Fortress Investment Group LLC Fortress Investment Group LLC Golub Capital Management LLC Halcyon Loan Investors LP Marathon Asset Management LP | | | |
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| ALM VI, Ltd. ALM VI, Ltd. Atrium VIII Fortress Credit Funding V LP Fortress Credit Funding VI LP Golub Capital Partners CLO 11, Ltd. Halcyon Loan Advisors Funding 2012-1 Ltd. Marathon CLO IV Ltd. Octagon Investment Partners XII, Ltd - Refinance Octagon Investment Partners XIV, Ltd. Deal Name ALM IV, Ltd. | 2012 2012 2012 2012 2012 2012 2012 2012 | USD USD USD USD USD USD USD USD USD USD | Apollo Credit Management LLCApollo Credit Management LLCCredit Suisse Asset ManagementFortress Investment Group LLCFortress Investment Group LLCGolub Capital Management LLCHalcyon Loan Investors LPMarathon Asset Management LPOctagon Credit Investors, LLCOctagon Credit Investors, LLCCollateral ManagerApollo Credit Management LLC | | | |
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| ALM VI, Ltd. ALM VI, LTD. Atrium VIII Fortress Credit Funding V LP Fortress Credit Funding VI LP Golub Capital Partners CLO 11, Ltd. Halcyon Loan Advisors Funding 2012-1 Ltd. Marathon CLO IV Ltd. Octagon Investment Partners XII, Ltd - Refinance Octagon Investment Partners XIV, Ltd. Deal Name ALM IV, Ltd. BlueMountain CLO 2011-1 Ltd. Carlyle Global Market Strategies CLO 2011-1, Ltd. Atrium VII Madison Park Funding VII, Ltd. | 2012 2012 2012 2012 2012 2012 2012 2012 | USD USD USD USD USD USD USD USD USD USD | Apollo Credit Management LLCApollo Credit Management LLCCredit Suisse Asset ManagementFortress Investment Group LLCFortress Investment Group LLCGolub Capital Management LLCHalcyon Loan Investors LPMarathon Asset Management LPOctagon Credit Investors, LLCOctagon Credit Investors, LLCCollateral Management LLCBlueMountain Capital Management LLCCredit Suisse Asset Management LLCCredit Suisse Asset Management LLCCredit Suisse Asset ManagementCredit Suisse Asset Management | | | |
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| ALM VI, Ltd. ALM VII, LTD. Atrium VIII Fortress Credit Funding V LP Fortress Credit Funding VI LP Golub Capital Partners CLO 11, Ltd. Halcyon Loan Advisors Funding 2012-1 Ltd. Marathon CLO IV Ltd. Octagon Investment Partners XII, Ltd - Refinance Octagon Investment Partners XIV, Ltd. Deal Name ALM IV, Ltd. BlueMountain CLO 2011-1 Ltd. Carlyle Global Market Strategies CLO 2011-1, Ltd. Atrium VII Madison Park Funding VII, Ltd. Golub Capital Partners CLO 10, Ltd. Central Park CLO, Ltd. | 2012 2012 2012 2012 2012 2012 2012 2012 | USD USD USD USD USD USD USD USD USD USD | Apollo Credit Management LLCApollo Credit Management LLCCredit Suisse Asset ManagementFortress Investment Group LLCFortress Investment Group LLCGolub Capital Management LLCHalcyon Loan Investors LPMarathon Asset Management LPOctagon Credit Investors, LLCOctagon Credit Investors, LLCCollateral ManagemApollo Credit Management LLCBlueMountain Capital Management LLCCarlyle Investment Management LLCCredit Suisse Asset ManagementCredit Suisse Asset ManagementGolub Capital Management LLCCredit Suisse Asset ManagementGolub Capital Management LLCGSO Capital Partners LP | | | |

| Deal Name | Vintage | Currency | Collateral Manager | | | |
|--|---------|----------|--|--|--|--|
| Gallatin CLO III 2007-1 Ltd. | 2007 | USD | Bear Stearns Asset Management Inc. | | | |
| 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 | | | |
| Apidos Cinco CDO | 2007 | USD | CVC Credit Partners LLC | | | |
| GoldenTree Loan Opportunities III, Limited | 2007 | USD | GoldenTree Asset Management LP | | | |
| GoldenTree Loan Opportunities IV, Limited | 2007 | USD | GoldenTree Asset Management LP | | | |
| Greywolf CLO I, Ltd. | 2007 | USD | Greywolf Capital Management LP | | | |
| Venture VIII CDO, Limited | 2007 | USD | MJX Asset Management LLC | | | |
| Symphony CLO III, Ltd. | 2007 | USD | Symphony Asset Management LLC | | | |
| | | | | | | |
| Deal Name | Vintage | Currency | Collateral Manager | | | |
| CIFC Funding 2006-I B, Ltd. | 2006 | USD | CIFC Asset Management LLC | | | |
| ColumbusNova CLO Ltd. 2006-II | 2006 | USD | CIFC Asset Management LLC | | | |
| Atrium V | 2006 | USD | Credit Suisse Asset Management | | | |
| Madison Park Funding II, Ltd. | 2006 | USD | Credit Suisse Asset Management | | | |
| Madison Park Funding III, Ltd. | 2006 | USD | Credit Suisse Asset Management | | | |
| ACA CLO 2006-2, Limited | 2006 | USD | CVC Credit Partners LLC | | | |
| Apidos CDO III | 2006 | USD | CVC Credit Partners LLC | | | |
| Sands Point Funding Ltd. | 2006 | USD | Guggenheim Investment Management LLC | | | |
| Venture VII CDO Limited | 2006 | USD | MJX Asset Management LLC | | | |
| Symphony CLO II, Ltd. | 2006 | USD | Symphony Asset Management LLC | | | |
| | | | | | | |
| Deal Name | Vintage | Currency | Collateral Manager | | | |
| Avenue CLO II, Ltd. | 2005 | USD | Avenue Capital Management II LLC | | | |
| Babson CLO Ltd. 2005-III | 2005 | USD | Babson Capital Management LLC | | | |
| Black Diamond CLO 2005-1 Ltd. | 2005 | USD | Black Diamond Capital Management LLC | | | |
| Black Diamond CLO 2005-2 | 2005 | USD | Black Diamond Capital Management LLC | | | |
| Centurion CDO 9 Limited | 2005 | USD | Columbia Management Investment Advisers, LLC | | | |
| Castle Garden Funding | 2005 | USD | Credit Suisse Asset Management | | | |
| APIDOS CDO I | 2005 | USD | CVC Credit Partners LLC | | | |
| Denali Capital CLO V, Ltd. | 2005 | USD | DC Funding Partners LLC | | | |
| Oak Hill Credit Partners IV, Limited | 2005 | USD | Oak Hill Advisors LP | | | |
| Cent CDO 10 Limited | 2005 | USD | RiverSource Investments LLC | | | |

Note: unpriced collateral is assumed to have a market price equal to the average of the CLO with the exception of equity which is essentially valued at zero. Outlying values for certain factors have been capped or floored. Where selected data fields are not reported, reasonable approximations have been used. One collateral manager is ineligible for consideration.

Manager Frequency for US\$ CLOs by Vintage

| Manager Name | 2005 | 2006 | 2007 | 2011 | 2012 | 2013 | 2014 | Total |
|--|------|------|------|------|------|------|------|-------|
| Credit Suisse Asset Management | 1 | 3 | 3 | 2 | 1 | | | 10 |
| Apollo Credit Management LLC | | | | 1 | 2 | 1 | 1 | 5 |
| CVC Credit Partners LLC | 1 | 2 | 1 | | | | | 4 |
| BlueMountain Capital Management LLC | | | | 1 | | | 2 | 3 |
| Och-Ziff Loan Management LP | | | | | | 2 | 1 | 3 |
| Marathon Asset Management LP | | | | | 1 | 1 | 1 | 3 |
| Octagon Credit Investors, LLC | | | | | 2 | 1 | | 3 |
| Symphony Asset Management LLC | | 1 | 1 | 1 | | | | 3 |
| Black Diamond Capital Management LLC | 2 | | | | | | | 2 |
| CIFC Asset Management LLC | | 2 | | | | | | 2 |
| MJX Asset Management LLC | | 1 | 1 | | | | | 2 |
| Golub Capital Management LLC | | | | 1 | 1 | | | 2 |
| Halcyon Loan Investors LP | | | | | 1 | 1 | | 2 |
| GoldenTree Asset Management LP | | | 2 | | | | | 2 |
| Feingold O'Keeffe | | | | | | 1 | 1 | 2 |
| Fortress Investment Group LLC | | | | | 2 | | | 2 |
| PineBridge Investments LLC | | | | 1 | | | | 1 |
| Napier Park Global Capital, LLC | | | | | | | 1 | 1 |
| ZAIS Group Inc. | | | | | | | 1 | 1 |
| 3i Group plc | | | | | | | 1 | 1 |
| Crescent Capital Group LP | | | | | | 1 | | 1 |
| Acis Capital Management, L.P. | | | | | | 1 | | 1 |
| DC Funding Partners LLC | 1 | | | | | | | 1 |
| Carlyle Investment Management LLC | | | | 1 | | | | 1 |
| MP Senior Credit Partners L.P. | | | | | | | 1 | 1 |
| Greywolf Capital Management LP | | | 1 | | | | | 1 |
| Oak Hill Advisors LP | 1 | | | | | | | 1 |
| GSO Capital Partners LP | | | | 1 | | | | 1 |
| Bear Stearns Asset Management Inc. | | | 1 | | | | | 1 |
| Guggenheim Investment Management LLC | | 1 | | | | | | 1 |
| RiverSource Investments LLC | 1 | | | | | | | 1 |
| Avenue Capital Management II LLC | 1 | | | | | | | 1 |
| Voya Investment Management (ING) | | | | 1 | | | | 1 |
| Columbia Management Investment Advisers, LLC | 1 | | | | | | | 1 |
| Alcentra Inc. | | | | | | 1 | | 1 |
| Babson Capital Management LLC | 1 | | | | | | | 1 |
| Grand Total | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 70 |

Euro CLOs

The same analysis was completed for European CLOs. 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 is in the top in four of the five vintages. AXA, CSAM and Carlyle have 2 CLOs in the top five in one vintage. It is also noteworthy that only a few of the top ranked managers are exclusive to the European market. There are 17 different managers out of the 25 possible in the list.

| Deal Name | Vintage | Currency | Collateral Manager |
|--|---------|----------|---------------------------------------|
| Harvest CLO IX Limited | 2014 | EUR | 3i Group plc |
| Jubilee CLO 2014- XI B.V. | 2014 | EUR | Alcentra Inc. |
| Carlyle Global Market Strategies Euro CLO 2014-1 Limited | 2014 | EUR | Carlyle Investment Management LLC |
| Carlyle Global Market Strategies Euro CLO 2014-2 Limited | 2014 | EUR | Carlyle Investment Management LLC |
| CVC Cordatus Loan Fund III Limited | 2014 | EUR | CVC Credit Partners LLC |
| | | | |
| Deal Name | Vintage | Currency | Collateral Manager |
| Alme Loan Funding 2013-1 Limited | 2013 | EUR | Apollo Credit Management LLC |
| Ares European CLO VI B.V. | 2013 | EUR | Ares Management, LLC |
| Cadogan Square CLO V B.V. | 2013 | EUR | Credit Suisse Asset Management |
| Grand Harbour I B.V. | 2013 | EUR | GSO Capital Partners LP |
| HayFin Ruby II Luxembourg S.C.A. | 2013 | EUR | Hayfin Capital Management LLP |
| | | | |
| Deal Name | Vintage | Currency | Collateral Manager |
| Cordatus Loan Fund I P.L.C. | 2007 | EUR | CVC Credit Partners LLC |
| Cordatus Loan Fund II P.L.C. | 2007 | EUR | CVC Credit Partners LLC |
| Eaton Vance CDO X Plc | 2007 | EUR | Eaton Vance Management |
| Harbourmaster CLO 9 B.V | 2007 | EUR | GSO Capital Partners LP |
| Dryden XV - EURO CLO 2006 P.L.C. | 2007 | EUR | Prudential Investment Management Inc. |
| | | | |
| Deal Name | Vintage | Currency | Collateral Manager |
| Duchess VI CLO B.V. | 2006 | EUR | Babson Capital Management LLC |
| Grosvenor Place CLO I B.V. | 2006 | EUR | CQS Investment Management Ltd. |
| Harbourmaster CLO 7 B.V. | 2006 | EUR | GSO Capital Partners LP |
| OAK HILL EUROPEAN CREDIT PARTNERS I P.L.C. | 2006 | EUR | Oak Hill Advisors LP |
| Nash Point CLO | 2006 | EUR | Sankaty Advisors Inc. |
| | | | |
| Deal Name | Vintage | Currency | Collateral Manager |
| Adagio II CLO Plc | 2005 | EUR | AXA Investment Managers |
| ORYX European CLO B.V. | 2005 | EUR | AXA Investment Managers |
| Cadogan Square CLO B.V. | 2005 | EUR | Credit Suisse Asset Management |
| Harbourmaster CLO 5 B.V. | 2005 | EUR | GSO Capital Partners LP |
| RMF Euro CDO III PLC | 2005 | EUR | Pemba Credit Advisers |

Note: unpriced collateral is assumed to have a market price equal to the average of the CLO with the exception of equity which is essentially valued at zero. Outlying values for certain factors have been capped or floored. Where selected data fields are not reported, reasonable approximations have been used.

Manager Frequency for Euro CLOs by Vintage

| Manager Name | 2005 | 2006 | 2007 | 2013 | 2014 | Total |
|---------------------------------------|------|------|------|------|------|-------|
| GSO Capital Partners LP | 1 | 1 | 1 | 1 | | 4 |
| CVC Credit Partners LLC | | | 2 | | 1 | 3 |
| Carlyle Investment Management LLC | | | | | 2 | 2 |
| AXA Investment Managers | 2 | | | | | 2 |
| Credit Suisse Asset Management | 1 | | | 1 | | 2 |
| Hayfin Capital Management LLP | | | | 1 | | 1 |
| Sankaty Advisors Inc. | | 1 | | | | 1 |
| Pemba Credit Advisers | 1 | | | | | 1 |
| Apollo Credit Management LLC | | | | 1 | | 1 |
| Alcentra Inc. | | | | | 1 | 1 |
| CQS Investment Management Ltd. | | 1 | | | | 1 |
| Oak Hill Advisors LP | | 1 | | | | 1 |
| 3i Group plc | | | | | 1 | 1 |
| Prudential Investment Management Inc. | | | 1 | | | 1 |
| Ares Management, LLC | | | | 1 | | 1 |
| Babson Capital Management LLC | | 1 | | | | 1 |
| Eaton Vance Management | | | 1 | | | 1 |
| Grand Total | 5 | 5 | 5 | 5 | 5 | 25 |

While no ranking system by definition is perfect, we offer one possible approach to viewing CLO performance which incorporates both the debt and the equity. In our analysis, the CLOs 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, a few deals that ranked moderately in regards to equity returns jumped up to make the above tables given their strength in other factors. Conversely, a couple of CLOs that ranked high solely based upon their equity returns, dropped out of the table through a combination of lower than normal test cushions, low collateral values and/or a higher than typical variance in equity returns. When analyzing CLO performance, the relative weight one gives to the various factors will cause differing CLOs to be more attractive as buy or sell opportunities. Careful and complete analysis will highlight these differences.

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