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Moody's Analytics comparison of different CLOs using the Proprietary "Structured Finance Portal"

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By year end 2014, the new issuance of US CLOs was a record of over $120bn with outstandings of $380bn. As one of the few products to maintain low defaults throughout the recent recession, CLOs have continued to be a key fixed income product for much of the market. The new issue forecast for 2015 has ranged from $75-90 billion. CLOs are the dominate buyer of US leveraged loans with over 40% of the market. Moody's Analytics flagship product for analyzing CLOs individually or as a portfolio is the Structured Finance Portal ("SFP"). The SFP also provides in-depth analytics on CLO portfolio managers as well as the CLO market as a whole.

We shall now compare and contrast several CLOs. For this purpose, we looked at four CLOs issued in 2012 and two from 2007. We wanted to compare the performance and characteristics of different transactions within a specific vintage and between vintages. Additionally, it is expected that more mature deals would look different than more recent ones. The new issue market size in 2007 was over $100 billion which is comparable to today's market volume. It was about half that size in 2012 at approximately $56 billion.

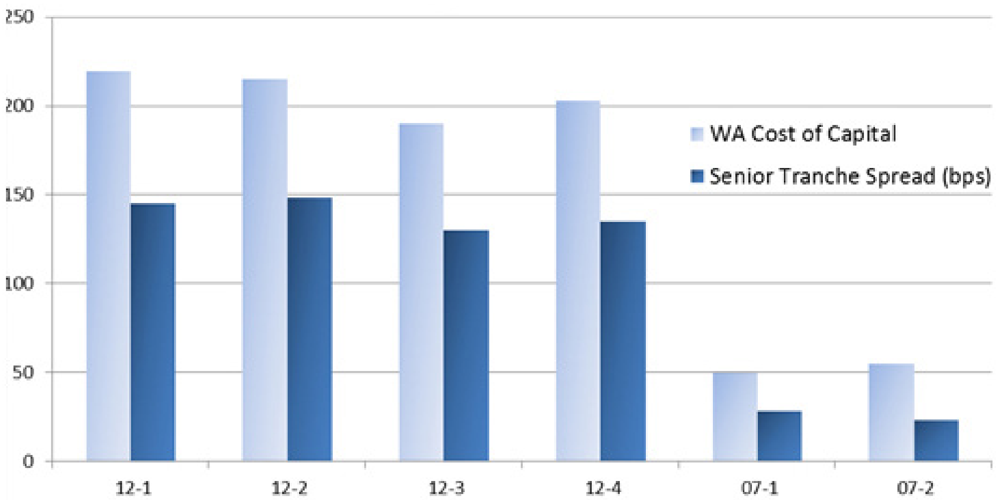
Table 1 depicts the CLOs we will be using for the analysis. The four 2012 CLOs are from different asset managers however, one of the 2007 deals is the same manager as one of the 2012 CLOs. We have elected not to specifically disclose the CLO names.

Table 1

Deal	12-1	12-2	12-3	12-4	07-1	07-2
Closing Date	Fall 2012	Fall 2012	Summer 2012	Spring 2012	Spring 2007	Spring 2007
Non-Call (yrs)	1.8	1.7	1.7	1.8	4.1	3.7
Reinvestment (yrs)	4.0	4.0	4.0	2.8	7.1	7.2
In the Reinvestment Period	Yes	Yes	Yes	Yes	Ended in 2014	Ended in 2014
Legal Final (yrs)	10.1	11.0	11.0	10.0	14.1	15.2
Time outstanding (yrs)	2.2	2.1	2.4	2.6	7.5	7.6
Deal Size ($mm)	500+	500+	500+	less than 500	700+	700+
WA Cost of Capital	219	215	190	203	50	55
Senior Tranche Spread (bps)	145	148	130	135	28	23
Deal Factor	100%	100%	50%	100%	99%	86%

There are a few items to note as we start. All of the CLOs are managed by firms that have completed multiple transactions over the years. Three of the four CLOs from 2012 are slightly over $500mm in size while the fourth is smaller. The cost of capital for the 2007 Vintage is less than a third that of the 2012 CLOs. Three of the seven deals have amortized a portion of the liabilities. Finally, CLO 12-4 has a greater than 10% middle market bucket. The implications of this will become more apparent further into the analysis.

Chart 1



The advance rate of CLOs has changed over time. In 2007, the Aaa's represented about 70% of the structure while after the recession, that was reduced to below 65%. The corresponding amount of equity was increased to at least 11% (from 7-8%) in each of the 2012 CLOs other than 12-1. That CLO was the only one to issue a "B" rated tranche which increased the deal leverage. Typically with more leverage, the expected return of 12-1 would increase, but so would the volatility of those returns.

Before we go more in-depth into the aforementioned CLOs, let's look at a further comparison of the two vintages overall. Table 2 compares the 2012 vintage with the 2007 vintage. There are several items of noteworthy difference highlighted in the table. Given the upcoming Volcker requirements, the investment in bonds has mostly been eliminated in the 2012 vintage. Covenant Lites were typically not specifically measured in the 2007 deals, but even when using the Suspected Covenant Lite field (loans indicated as covenant lite in any other CLO), they are much lower in 2007 than 2012 vintage. When looking at the collateral tests typically in the Collateral Matrix, you notice that the diversity is lower in 2007 as expected as CLOs amortize. While the collateral Weighted Average Spread ("WAS") is greater in the 2012 vintage, the cushion to the test level is significantly smaller. With a lower cost of capital, the 2007 CLOs typically set lower WAS requirements. However, as spreads have generally widened, they have been able to purchase wider spread collateral when reinvesting in new collateral. As expected, the Weighted Average Life ("WAL") of the collateral in the CLOs past their reinvestment period is shorter.

Table 2

	Median	25th percentile	75th percentile	Median	25th percentile	75th percentile
Collateral						
Bond %	0.0%	0.8%	0.0%	1.1%	6.0%	0.0%
Second Lien %	2.7%	3.8%	1.0%	0.9%	1.9%	0.0%
Senior Secured %	97.0%	95.5%	98.6%	95.4%	91.3%	97.8%
Covenant Lite %	25.4%	37.0%	16.1%	N/A	N/A	N/A
Suspected Cov Lite %	67.2%	73.3%	54.0%	41.7%	55.5%	11.8%
Structured %	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%
Suspected Amended %	5.4%	7.0%	3.7%	12.2%	17.0%	7.5%
Matrix Tests						
Moody's Diversity	66	54	74	44	33	56
Diversity Cushion	13	6	20	(3)	(11)	3
Moody's WARF	2,752	2,855	2,663	2,507	2,759	2,355
WARF Cushion	323	195	473	239	22	438
WA Recovery Test %	50.0%	49.1%	50.7%	51.3%	50.3%	56.0%
WA Recovery Test Cushion %	5.8%	4.0%	7.0%	5.7%	3.7%	7.1%
WAL (yrs)	5.0	5.2	4.7	3.8	4.3	3.4
WA LIBOR Floor %	0.99%	0.97%	1.02%	0.98%	0.96%	1.03%
Has LIBOR Floor %	98.6%	95.5%	100.0%	0.0%	0.0%	74.4%
WAS %	4.39%	4.22%	4.63%	3.51%	3.12%	3.93%
WAS (Pre-floors) %	3.66%	3.53%	3.92%	3.23%	3.00%	3.89%
WAS Test Cushion %	0.36%	0.20%	0.71%	0.84%	0.44%	1.22%
Performance						
Annualized Default Rate %	0.0%	0.0%	0.0%	2.0%	3.0%	1.0%
Annualized Equity Return %	20.0%	18.0%	23.0%	22.0%	14.0%	26.0%
Annualized Par Build %	0.4%	0.2%	0.6%	(0.1%)	(0.3%)	0.2%
Caa/CCC %	3.1%	4.4%	1.3%	2.1%	4.4%	0.7%
Credit Risk Sales %	1.0%	3.0%	0.0%	5.0%	8.0%	3.0%
Defaulted %	0.0%	0.0%	0.0%	1.1%	3.0%	0.0%
Suspected Defaulted %	1.9%	2.5%	1.0%	3.6%	6.0%	2.3%
Senior OC Cushion	11.1%	10.4%	12.0%	19.9%	11.6%	38.3%
Junior OC Cushion	5.3%	4.8%	6.0%	4.3%	2.1%	7.4%

There are also some interesting differences in the performance of the two vintages (see the yellow highlights). Both the Annual Default Rate and current holdings of Suspected Defaults (collateral indicated as default in other CLOs) are higher in the 2007 vintage yet the Annualized Equity Return in still stronger. A key to that strong result is the lower cost of capital coupled with the widening loan spread over time. There is more volatility of Equity Returns in the 2007 CLOs given their longer time outstanding and the deep recessionary environment they went through. The 2007 deals have been more active in their trading of Credit Risk loans which is partially correlated with higher Suspected Defaults. The principal conclusion is that the 2007 vintage significantly benefited from locking in low funding costs while earning greater income through the rising yields of their investments in a relatively low default environment.

The overlap analysis of the CLOs in the two groups is interesting. As expected there is a significant overlap of collateral between 12-1 and 07-1 which are both by the same manager (almost 54%). However, one might expect 07-1 to have a high overlap with the other 2007 vintage CLO, but it is actually in the same range as two of the other three 2012 CLOs. One possible conclusion could be that over time, the collateral of an older vintage CLO drifts toward more recent deals as they all reinvest in new collateral. Alternatively, there is only a 7% overlap between CLO 12-2 & 12-4 which is partly explained by 12-4's middle market bucket. 12-4 is the most collateral differentiated CLO of the group.

Exhibit 1

Overlap - Issuer, Average						
	12-1	12-2	12-3	12-4	07-1	07-2
12-1		37.03%	39.49%	18.49%	53.84%	28.62%
12-2	37.03%		26.43%	7.00%	27.92%	14.71%
12-3	39.49%	26.43%		16.34%	31.04%	22.76%
12-4	18.49%	7.00%	16.34%		17.25%	11.01%
07-1	53.84%	27.92%	31.04%	17.25%		25.59%
07-2	28.62%	14.71%	22.76%	11.01%	25.59%	

Table 3 compares certain key performance indicators of the specific CLOs. While there are many similarities among the deals, there are a few differences that are noteworthy. The cash balance difference does stand out. It ranges from a high of over 1.5% in two of the deals to actually being negative in CLO 12-2. While a negative cash balance may seem counterintuitive, it occurs when collateral purchase tickets have been written prior to the sales ticket. Yet the CLO cannot borrow additional funds, so the settlement must result in a zero or positive cash balance. Since cash balances earn low returns, CLO managers attempt to minimize them while maintaining sufficient cash to both handle forthcoming settlements and exploit future investment opportunities.

Table 3

	12-1	12-2	12-3	12-4	07-1	07-2
Cash Balance Percentage	1.53%	(0.01%)	0.65%	1.13%	1.52%	0.79%
Weighted Average Loan Price	97.7%	98.3%	98.3%	98.6%	97.1%	93.2%
Weighted Average Performing Loan Price	97.8%	98.3%	98.3%	98.6%	98.1%	98.3%
Weighted Average Defaulted Loan Price	73.0%	0.0%	0.0%	0.0%	49.7%	41.7%
Last Period Equity Cash on Cash	4.7%	4.8%	2.6%	6.9%	11.2%	5.9%
Annualized last Period Eq Cash on Cash	20.0%	20.5%	10.7%	30.7%	52.6%	25.9%
Total Equity Cash on Cash	37.9%	43.1%	37.5%	66.6%	238.3%	59.2%
Total Eq CoC / yrs	17.6%	20.1%	15.7%	25.8%	31.7%	7.8%
Standard Deviation of Equity Returns	5.0%	9.2%		2.2%	14.5%	11.4%
Minimum OC Cushion	5.8%	5.0%	4.8%	5.4%	5.9%	1.0%
Caa/CCC %	2.7%	5.0%	3.8%	1.0%	4.7%	2.0%
% Currently Defaulted	0.1%	0.0%	0.0%	0.0%	2.0%	9.2%
Manager ave defaulted %	0.8%	0.0%	0.0%	0.5%	0.8%	4.9%
Manager Diff vs this CLO	0.7%	0.0%	0.0%	0.5%	(1.2%)	(4.3%)
Suspected % Currently Defaulted	2.1%	2.0%	1.6%	0.0%	4.5%	10.2%
Manager Suspected Defaulted %	2.6%	1.8%	1.8%	0.5%	2.6%	8.6%
Manager Diff vs this CLO	0.4%	(0.3%)	0.2%	0.5%	(1.9%)	(1.6%)
Annualized Default Rate %	0.0%	0.0%	1.0%	0.0%	2.0%	6.0%
Annualized Par Build %	0.4%	0.5%	0.2%	0.6%	0.2%	(0.3%)
Credit Risk Sales %	0.0%	26.0%	3.0%	0.0%	3.0%	12.0%

Source: Pricing data supplied by Thomson Reuters for loans, bonds and any equity are unpriced.

The prices of the performing loans are in a tight band of 97.8 – 98.6, yet the overall Weighted Average Loan Price drops to a low of 93.2 given the high percent of CLO 07-2 (9.2%) that is defaulted. This contrasts to the 2012 vintage which essentially have no defaults. 07-2 is also much closer to failing it overcollateralization test than the others.

When analyzing the default performance of a CLO, it is important to both look at the specific deal, but to also look at how the deal varies from others of the same vintage or same manager. For example, the percent currently in default for each of the 2012 CLOs is very low while 07-2 is unusually high at 9.2%. Additionally, the other five CLOs from both vintages have similar default percentages to the manager's average default holdings while 07-2 is almost double that manager's average of 4.9%. Thus, even though this manager typically holds a higher amount of defaulted collateral, this particular CLO is an outlier. Moody's also reports the Suspected Defaulted Percentage which includes collateral that others list as defaulted regardless of if this CLO considers it defaulted. Taking these into account, the default holdings of 07-02 is over 10%. Related to these performance indicators is both the low OC cushion and negative par building in 07-2 as compared to the other five CLOs.

Equity investors will see that the returns vary widely across the transactions with both the highest and lowest performing CLOs being the two from the 2007 vintage with an annual cash on cash return of 31.7% and 7.8%. Yet even the weaker CLO outperformed most other asset classes during the same period. The 2012 vintage is a narrower range of 16% to 26%. When just looking at the most recent period's cash flow to the equity, the strongest returns are generally from the 2007 CLOs. It is interesting to note that CLO 07-2, which has some stress, had the second highest equity payout in its most recent period yet the weakest overall returns. The overall equity performance of 07-2 is weakened by the multiple periods without any distribution. The standard deviation of the periodic equity returns (typically quarterly for US CLOs) ranged from 2.2% to 14.5% with largest being for the 2007 Vintage (a standard deviation was not calculated for one of the CLOs). The standard deviation for the CLOs of US managers is slightly more than 7%.

In addition to the overall return, many investors are focused on the timing of the equity payments. Table 4 shows both the total historic distributions and the periodic payments to the equity investors under a specific set of modeling assumptions. Please note that in several of the CLOs, there are very low or no payments projected to be made to these investors in some quarters. This may occur if some of the overcollateralization tests fail and funds that would have been available for the equity investors are being used to reinvest or redeem liabilities. Alternatively, the income generated may not be sufficient to release funds to the equity. The final payment is typically the largest as the liabilities have been repaid and all remaining funds after any deal costs are released to the equity investors. The projections assume there is no future trading by the collateral manager which could have a material effect on the performance of the CLO.

CLO 12-4 which closed in 2012 has returned a greater percentage of its equity investment than 07-1 which closed five years earlier. Lower equity returns typically result from i) collateral losses which lower available cash flow or cause the failure of a coverage test or ii) lower income on reinvested collateral. Yet, even the worst performing CLO within the group (07-2) still is expected to generate a positive return. The actual percentage return to any investor will also depend upon the price they paid for the equity. Our analysis is based upon par purchases.

As expected, the older 2007 CLOs have a shorter remaining average life, but not a substantially shorter one primarily due to their longer reinvestment period (seven years for the 2007 vintage vs four years for the 2012 vintage). Since reinvested new issue loans typically have the same life, CLOs during their reinvestment period have similar WALs unless constrained by differing WAL test requirements. However, once a CLO leaves its reinvestment period, the WAL usually shortens. Mitigating this is any prepayment of shorter collateral at a faster rate than longer collateral. Both of the 2007 Vintage CLOs ended their reinvestment period in 2014. There is only a six month variation in the average lives of the 2012 CLOs.

Table 4

	Projected Remaining Equity Payments by Quarter					
Prior Payments	**37.9%**	**43.1%**	**41.2%**	**66.6%**	**238.3%**	**59.2%**
	12-1	**12-2**	**12-3**	**12-4**	**07-1**	**07-2**
Future Periods						
1	4.3%	4.5%	3.5%	5.9%	10.3%	5.7%
2	4.6%	4.5%	4.5%	5.4%	9.3%	5.1%
3	4.2%	4.4%	4.2%	4.5%	8.4%	4.4%
4	1.7%	3.9%	2.3%	3.7%	7.3%	3.6%
5	3.4%	3.5%	3.5%	3.8%	6.2%	3.1%
6	5.0%	3.1%	3.3%	3.0%	5.2%	2.4%
7	0.0%	3.0%	3.0%	2.5%	4.4%	2.1%
8	0.1%	0.0%	0.2%	2.2%	3.8%	1.7%
9	2.6%	0.3%	2.7%	2.0%	3.4%	1.5%
10	5.0%	3.1%	2.7%	1.9%	3.0%	1.3%
11	0.0%	2.3%	2.5%	1.6%	2.6%	1.1%
12	1.1%	1.5%	2.4%	1.4%	2.3%	0.8%
13	2.7%	8.3%	2.3%	1.4%	2.0%	0.7%
14	2.1%	0.0%	2.4%	1.3%	1.7%	0.5%
15	1.6%	0.0%	2.1%	0.9%	1.4%	0.4%
16	1.0%	6.9%	2.0%	0.8%	1.1%	0.2%
17	9.0%	1.8%	7.4%	0.7%	1.0%	0.4%
18	0.0%	1.5%	0.0%	0.8%	0.8%	0.3%
19	0.0%	1.5%	0.0%	6.4%	0.7%	0.4%
20	3.6%	1.4%	0.4%	**68.9%**	0.7%	0.4%
21	0.3%	1.3%	7.0%		17.6%	2.5%
22	5.8%	0.0%	3.6%		**40.2%**	**41.9%**
23	**44.7%**	4.4%	**58.6%**			
24		**51.2%**				
Forcasted Total as % of Face Amt	**103.0%**	**112.2%**	**120.6%**	**119.0%**	**133.5%**	**80.7%**
Total Eq Return	**140.9%**	**155.3%**	**161.8%**	**185.6%**	**371.8%**	**139.8%**
Ave Remaining Life (yrs)	**3.8**	**3.9**	**4.0**	**3.5**	**3.0**	**3.4**

The key modeling assumptions are in Table 4a where CPR represents the Annual Prepayment rate and CDR the Annual Default Rate.

Table 4a

Assumptions:					
CPR	30%	CDR	2%	Recovery Lag	6 months
Reinv Sprd (bps)	375	Recovery Rate	70%	Reinv Price	100%

Table 5 focuses on the varying collateral characteristics and related collateral matrix performance. For example, Covenant Lite ("Cov Lite") is not measured in the 2007 vintage yet can be analyzed through the Moody's Suspected Cov Lite % data which includes all collateral listed at Cov Lite in any CLO. Using this data, the CLOs are more similar across vintage yet still vary by 20% in their Cov Lite holdings. Typically investors who focus on Cov Lite holdings will want to use this analysis which normalizes the results for varying deal definitions. Related to the high Cov Lite bucket in 12-2 is the number of second lien loans of 6.2%. None of the others even have 4% second liens. None of the CLOs have any bonds likely a result of the Volcker Rules, yet I suspect that the 2007 vintage CLOs had bonds at some point.

Table 5

	12-1	12-2	12-3	12-4	07-1	07-2
Collateral						
Bond %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Second Lien %	1.5%	6.2%	3.9%	0.0%	3.1%	0.9%
Senior Secured %	98.6%	93.8%	96.1%	100.0%	96.9%	99.0%
Covenant Lite %	36.5%	34.1%	14.5%	8.3%	N/A	N/A
Suspected Cov Lite %	61.6%	66.4%	54.4%	44.7%	58.8%	46.9%
Structured %	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%
% Long Dated					0.5%	0.6%
Matrix Tests						
Moody's Diversity	93	65	71	55	93	49
Diversity Cushion	23	20	21	0	23	(6)
Moody's WARF	2,722	2,596	2,724	3,077	2,722	2,418
WARF Cushion	482	704	214	331	482	177
Manager CLO Average WARF	2,672	2,579	2,649	3,248	2,672	2,334
Manager Diff vs this CLO	(50)	(17)	(75)	171	(50)	(84)
WA Recovery Test %	49.9%	48.5%	50.1%	49.2%	49.5%	51.5%
WA Recovery Test Cushion %	7.9%	5.5%	6.1%	5.2%	6.0%	8.2%
WAL (yrs)	5.0	5.3	5.4	4.7	5.0	3.9
WA LIBOR Floor %	1.0%	1.0%	1.0%	1.0%	1.1%	1.0%
Has LIBOR Floor %	97.2%	100.0%	96.7%	99.2%	95.5%	66.0%
WAS %	4.5%	4.6%	4.2%	5.1%	4.0%	3.0%
WAS Test Cushion (bps)	64.0	43.0	39.0	11.0	214.0	10.0

The 2007 CLOs have long dated collateral (collateral which matures beyond the legal final maturity date of the CLO) which is typically not allowed in 2012 CLOs. Long dated collateral may present some risk to the debt investors since at the CLO maturity date, they cannot rely upon redemptions to repay the CLO liabilities. If there is a shortfall, this collateral must be sold and the debt holders are subject to the market value risk.

The Collateral Matrix Tests are designed to ensure the CLO has sufficient diversity and net cash flow to support its liabilities under stressful default scenarios. Debt holders typically benefit from a positive cushion in the tests in the form of higher expected credit protections. Equity holders most directly benefit from excess spread on the collateral. As you would expect from the previous discussions of the performance of these CLOs, generally the numbers are the weakest for 07-2. It is failing its Moody's Diversity test (a measure of industry and issuer concentration) and is closest to its Moody's WARF and Weighted Average Spread ("WAS") requirements. The WARF of 07-2 is furthest below the average WARF of any of the Managers' CLOs. Interestingly, 12-4 has both the weakest WARF and the most outperformance of that Manager's other deal WARFs. CLO 12-4 was likely structured to withstand a higher WARF given the higher middle market loan bucket.

Earlier we showed how 07-1 had the strongest equity performance. All other factors being equal, this is expected given the extreme excess spread likely generated by having 214 bps cushion in the WAS test. None of the others even have one third of the cushion. 07-2, which has the weakest equity return, only has a 10 bps cushion. The cushion on 12-4 is also low, but the higher equity returns of that CLO benefited from the extremely low default rate, the excess income earning collateral generated by the highest par building of the group and potentially greater spread cushion earlier in the CLO's life.

When comparing CLOs, it is useful to know the different industry focus of different managers and within various CLOs. Exhibit 2 shows the top industry concentrations across the CLOs being examined. The top two industries are i) FIRE: Banking, Finance, Insurance & Real Estate and ii) Healthcare & Pharmaceuticals. In four of the transactions, these represent two of the three largest concentrations. Hotel, Gaming & Leisure is also near the top of four CLOs, but not always among the top three in a particular CLO. Three CLOs had either High Tech Industries or Hotel, Gaming & Leisure. Note the very high industry concentrations in the amortizing CLOs. This occurs as collateral from other industries repays at a faster rate and there is no Diversity related reinvestment test to maintain. Almost a quarter of the 07-02 CLO is in Healthcare & Pharmaceuticals. While there is significant overlap across vintages, Diversified/Conglomerate Service and ABS (which includes structured products) are only among the top of one of the 2007 vintage CLOs. Typically, 2011 or later Vintages do not allow for investment in ABS. Finally, Retail is also only among the top five in one CLO.

Exhibit 2

Industry Breakown	12-1	
FIRE: Banking, Finance, Insurance & Real Estate	59,936,370	12.0%
Healthcare & Pharmaceuticals	44,762,301	9.0%
High Tech Industries	39,681,761	7.9%
Hotel, Gaming & Leisure	36,703,337	7.3%
Media: Broadcasting & Subscription	35,193,511	7.0%

Industry Breakown	12-4	
Healthcare & Pharmaceuticals	58,635,796	11.7%
Retail	44,261,424	8.9%
High Tech Industries	39,613,818	7.9%
Services: Business	36,031,122	7.2%
Beverage, Food & Tobacco	34,304,225	6.9%

Industry Breakown	12-2	
Hotel, Gaming & Leisure	66,527,894	13.3%
FIRE: Banking, Finance, Insurance & Real Estate	54,684,517	10.9%
Healthcare & Pharmaceuticals	53,559,173	10.7%
Telecommunications	50,987,448	10.2%
Services: Business	38,735,055	7.7%

Industry Breakown	07-1	
FIRE: Banking, Finance, Insurance & Real Estate	97,980,065	19.6%
Healthcare & Pharmaceuticals	72,090,640	14.4%
High Tech Industries	71,352,122	14.3%
Diversified/Conglomerate Service	63,533,151	12.7%
Hotel, Gaming & Leisure	50,518,619	10.1%

Industry Breakown	12-3	
Telecommunications	45,703,814	9.1%
Healthcare & Pharmaceuticals	45,095,727	9.0%
Media: Broadcasting & Subscription	43,167,426	8.6%
Services: Business	42,821,080	8.6%
Beverage, Food & Tobacco	38,612,770	7.7%

Industry Breakown	07-2	
Healthcare & Pharmaceuticals	118,326,914	23.7%
FIRE: Banking, Finance, Insurance & Real Estate	74,333,031	14.9%
ABS	62,356,027	12.5%
Hotel, Gaming & Leisure	62,305,802	12.5%
Media: Broadcasting & Subscription	56,401,460	11.3%

The top five industry breakdown for the 2012 & 2007 vintages in aggregate are shown in Exhibit 3. In 2012, the noticeable difference is that Telecommunications is not in the top five yet it is one of the top five in only two of the four 2012 CLOs. The largest industries in 07-1 or 07-2 CLOs include ABS and Hotel, Gaming & Leisure as opposed to the 2007 vintage as a whole.

Exhibit 3

2007 Vintage	2012 Vintage
Healthcare & Pharmaceuticals	Healthcare & Pharmaceuticals
FIRE: (Finance, Insurance, RE, Banking)	High Tech Industries
Media: Broadcasting & Subscription	Services: Business
Diversified/Conglomerate Service	Hotel, Gaming & Leisure
High Tech Industries	FIRE: (Finance, Insurance, RE, Banking)

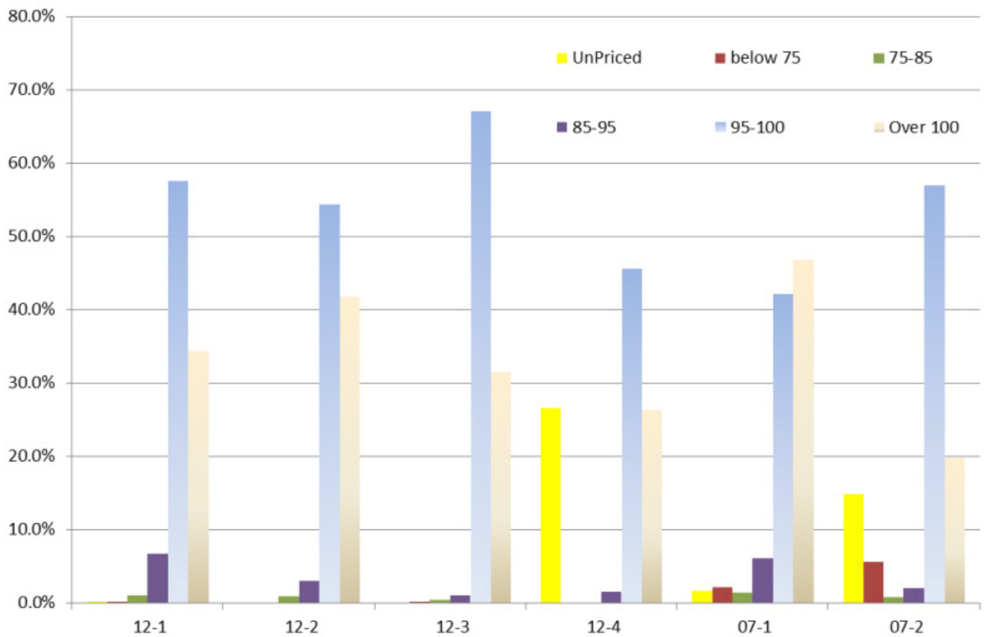
The geographic distribution (per the CLO constraints) is predominately US though the concentration ranges from 90% – 98% as depicted in Table 6. Canada and Luxembourg are the next two largest locations with smaller amounts in other European locations and occasionally Australia. The geographic distribution is more an indication of the locale of the credits the asset manager prefers than a focus on creating geographic diversity in itself as desired by typical mortgage deals.

Table 6

Geography	12-1	12-2	12-3	12-4	07-1	07-2
U.S.	92.2%	90.4%	91.6%	97.7%	94.7%	92.7%
Canada	2.9%	1.2%	2.8%	1.1%	2.2%	3.4%
Luxembourg	1.9%	4.4%	3.3%	0.7%	0.6%	0.7%
Netherlands	1.0%	0.8%	1.8%	0.5%	0.8%	2.3%
Australia	0.9%		0.1%		0.8%	
United Kingdom	0.7%	3.2%			0.6%	
Germany	0.3%		0.4%		0.2%	0.8%
France	0.1%				0.1%	

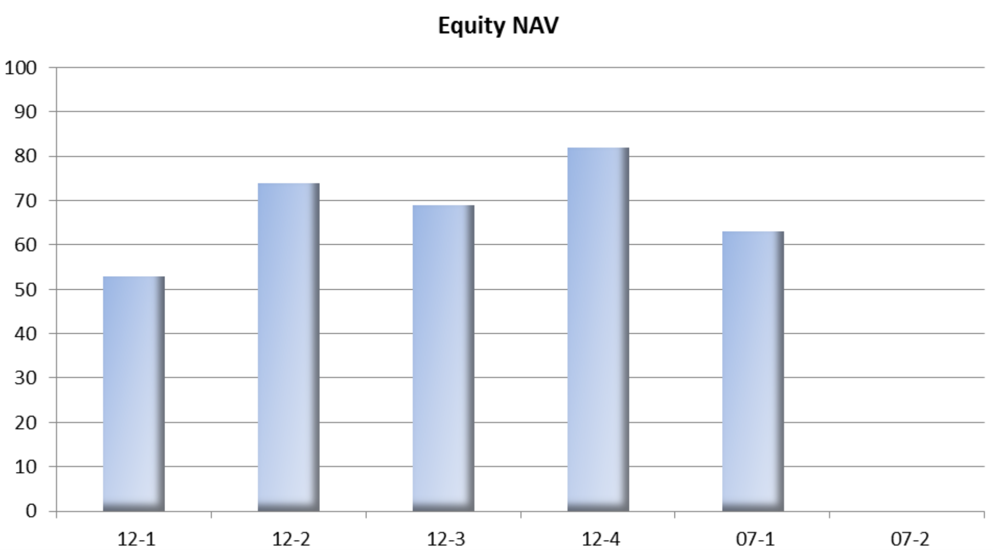
Chart 2 shows the breakdown of collateral prices. As expected with performing CLOs, the vast majority of the collateral is priced at 95 or above. The one exception is 12-4 which has the larger middle market loan bucket that typically does not have public loan prices. Separately, the weaker performing CLO 07-2 has a large unpriced bucket of almost 15%. This bucket includes loans, equity and structured products. Equity typically only is included in a CLO as a recovery from defaulted collateral. CLOs 12-1 and 07-1 each have over 6% of their portfolio priced at 85-95 which is larger than most. CLO 07-2 has over 5% of its collateral priced below 75 which is highly unusual for a CLO. Two loans represents a majority of that.

Chart 2



Source: Pricing data supplied by Thomson Reuters for loans, bonds and any equity are unpriced.

Chart 3



Source: Pricing data supplied by Thomson Reuters.
Note: Unpriced collateral is assumed to be priced at the average of all of the CLO's collateral for purpose of an NAV calculation.
To be conservative, any equity is essentially assumed to have no value.

The equity NAV is related to the collateral price. As expected with the lower priced collateral, the NAV for 07-2 is zero as shown in Chart 3. The others range from the low 50s to the low 80s with 12-4 being the highest. 12-4 also has the strongest equity returns thus far. NAV can be an indicator of the likelihood of a CLO being called as well as the strength of the CLO in general.

While there are many similarities among CLOs, a careful analysis shows that the value comes from understanding the differences. Even CLOs from the same manager perform differently partly based upon their relative vintage. CLOs that start out similar, differentiate based upon the performance, underlying collateral and collateral constraints, market conditions and collateral manager style. The proper tools are essential when comparing CLOs.