

RESEARCH

6 JANUARY 2016

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Inconsistent Industry Designation in CLO Monthly Surveillance Reports

Highlights*

- » There is industry classification unanimity among collateral managers for less than 1/2 of the issuers as shown on the monthly surveillance reports.
- » On average, there is 83% agreement on the industry for each issuer.
- » The remaining 17% of the industry classifications are often spread across many different industries.
- » Certain industries are more prone to being inconsistently selected
- » The reason for this inconsistency is likely issuer/CLO manager dependent.

*This article is authored and published by Moody's Analytics, Inc. and does not in any way reflect the opinion of Moody's Investors Service, Inc., its affiliated credit rating agency. The data for this report is from the latest available monthly surveillance report as of November 30, 2015.

A number of issuers¹ are designated as being in more than one industry² by CLO managers across CLO monthly surveillance reports. This can occur for a variety of reasons. These include:

- » The individual securities from the issuer are from a variety of subsidiaries in different industries.
- » The issuer is in many different industries and there is no clear consensus among managers as to which industry is the most representative. For example, suppose a company only transports supplies to offshore drilling platforms. Some may indicate that issuer as being in the Energy: Oil & Gas industry while others in Transportation.
- » A CLO manager made a mistake and/or is aggressive in the interpretation of the appropriate industry.

Our analysis for this study of industry classifications is based on data provided in the Moody's Analytics Structured Finance Portal. The screen that could be used to most directly identify industry classification is the Asset Level (collateral) list with the characteristics. Summary industry classification analysis is in certain Key Differentiators in the Summary section of the Deal page, the Top Industries table in the Composition section of the Deal page.

Table 1 displays a breakdown of industries³ based upon the issuers indicated as those industries by CLO managers. The table is sorted by the size of the Industry (as determined by the most selected industry in the monthly reports). In Chart 1, the balances (columns) are measured on the left axis and the percent indicating the most selected industry (line) on the right. The "black" gridline represents 80% on the right axis. On average⁴ for each issuer, one industry is indicated 83% of the time while other industries are selected in 17% of the monthly reports. For 40% of the issuers, the monthly reports show only one industry each. "No Moody's Industry" means that for a number of issuers, no Moody's Industry was indicated on most of the monthly reports⁵.

¹ In this context, issuer refers to the parent company.

² To better understand the analysis, let's look at a simple example. Suppose that there are 2 issuers (Issuer A and Issuer B) which the highest number (which may be less than 50% in either case) of monthly surveillance reports say are in the Retail Industry. Issuer A is listed as Retail on 80% of the monthly reports across all deals and Issuer B is listed as Retail on 40% of the monthly reports (with each other industry aggregating to less than 40%). Thus, on average for the Retail industry 60% of the monthly reports indicate Retail Industry as the "Top Industry" and 40% show something else.

³ Utilities is a combination of Utilities, Utilities: Oil & Gas and Utilities: Electric and FIRE: Banking, Finance, Insurance & Real Estate is a combination of those component industries.

⁴ The average is the average for each Industry without regard to the par balance of that Industry.

⁵ These CLO's likely do not require a Moody's rating to be disclosed and may rely upon S&P or Fitch Industries.

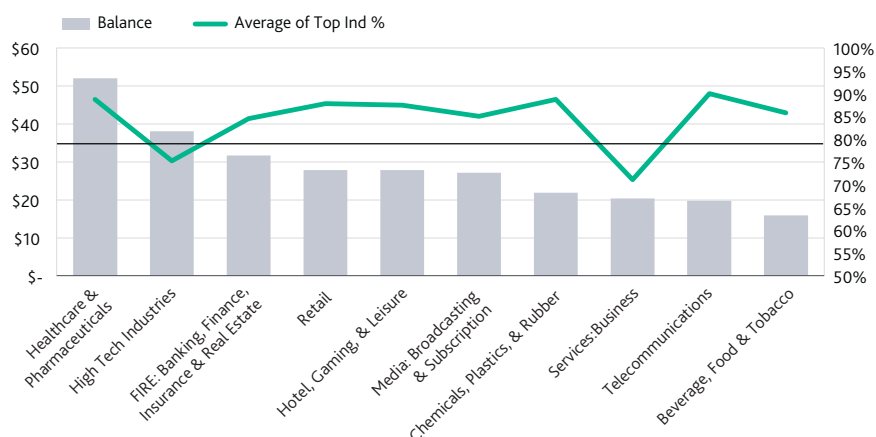
TABLE 1: PERCENT OF ISSUERS INDICATED AS THE SPECIFIED INDUSTRY ACCORDING TO MONTHLY SURVEILLANCE REPORTS (\$ BILLIONS)⁶.

Industry	Balance	Count	Average of Top Ind %	Maximum	Minimum
Healthcare & Pharmaceuticals	51.96	271	88.7%	100.0%	32.8%
High Tech Industries	38.09	154	75.3%	100.0%	25.1%
FIRE: Banking, Finance, Insurance & Real Estate	31.67	172	84.5%	100.0%	27.1%
Retail	27.87	137	87.8%	100.0%	28.0%
Hotel, Gaming & Leisure	27.82	149	87.4%	100.0%	36.0%
Media: Broadcasting & Subscription	27.18	78	85.0%	100.0%	38.1%
Chemicals, Plastics, & Rubber	21.92	104	88.7%	100.0%	33.7%
Services: Business	20.36	131	71.1%	100.0%	25.5%
Telecommunications	19.73	95	89.9%	100.0%	38.3%
Beverage, Food & Tobacco	15.96	112	85.7%	100.0%	33.6%
Automotive	15.08	96	87.3%	100.0%	31.2%
Utilities	14.67	67	77.0%	100.0%	33.8%
Energy: Oil & Gas	14.28	85	84.8%	100.0%	26.7%
Media: Advertising, Printing & Publishing	13.30	84	81.2%	100.0%	23.6%
Containers, Packaging & Glass	13.12	71	82.6%	100.0%	39.2%
Capital Equipment	12.61	93	72.8%	100.0%	25.2%
Aerospace & Defense	10.61	77	90.6%	100.0%	38.9%
Construction & Building	8.27	74	77.3%	100.0%	19.0%
Transportation: Consumer	8.14	26	87.6%	100.0%	33.1%
Metals & Mining	8.11	48	88.5%	100.0%	31.0%
Services: Consumer	7.83	52	76.1%	100.0%	30.7%
Consumer goods: Non-durable	7.31	62	79.8%	100.0%	34.3%
Transportation: Cargo	4.15	47	83.6%	100.0%	33.9%
Environmental Industries	3.94	40	75.4%	100.0%	29.8%
Consumer goods: Durable	3.80	50	75.6%	100.0%	37.2%
No Moody's Industry	3.07	114	83.5%	100.0%	23.4%
Media: Diversified & Production	3.05	16	76.3%	100.0%	36.4%
Forest Products & Paper	0.84	6	62.0%	92.5%	43.6%
Diversified/Conglomerate Service	0.83	30	76.8%	100.0%	39.2%
Energy: Electricity	0.26	10	76.9%	100.0%	28.9%
Diversified/Conglomerate Manufacturing	0.14	10	81.4%	100.0%	41.7%
Wholesale	0.09	5	85.3%	100.0%	56.3%
Sovereign & Public Finance	0.01	1	69.4%	69.4%	69.4%
Grand Total	436.10	2,567	83.0%	100.0%	19.0%

Source: Moody's Analytics Structured Finance Portal

⁶ For each CLO, we looked at the monthly reports where that industry is at least a plurality.

CHART 1: BALANCE AND PERCENT SELECTED FOR THE LARGEST INDUSTRIES.



Source: Moody's Analytics Structured Finance Portal

Healthcare & Pharmaceuticals is the largest industry designation (the "Top Industry"). Table 1 & Chart 1 show that of all issuers that are mostly indicated as in the Healthcare & Pharmaceuticals Industry by CLO Managers, 89% of those say that issuer is in Healthcare & Pharmaceuticals. The range for the 271 issuers in that group is from a high of all reports for some issuers showing the industry as Healthcare & Pharmaceuticals to a low of only 33% of the reports of CLO's holding certain issuers have Healthcare & Pharmaceuticals and the remaining 67% of CLO's indicate other industries.

For most industries, there is at least one issuer where all the monthly reports have that issuer in the same Industry. However, for issuers in Forest Products/Paper and Sovereign/Public Finance there is not one case where there is unanimity of issuer industry classification (these are very small industries with only seven total issuers). Conversely, 16 industries have at least one issuer where no more than 1/3 of the reports label that issuer as being in that industry. The lowest is 19% for an issuer in Construction & Building.

Forest Products/Paper also has the lowest average agreement across monthly reports of the industry of an issuer at 62%. Table 2 shows the complete table of industries ranked by the average percent of monthly reports that agree on the issuer (lowest to highest). 14 Industries have on average less than 80% of agreement on the Industry for the issuers within that industry. Seven of those 14 represent less than 1% of the total CLO par each which diminishes their relevance.

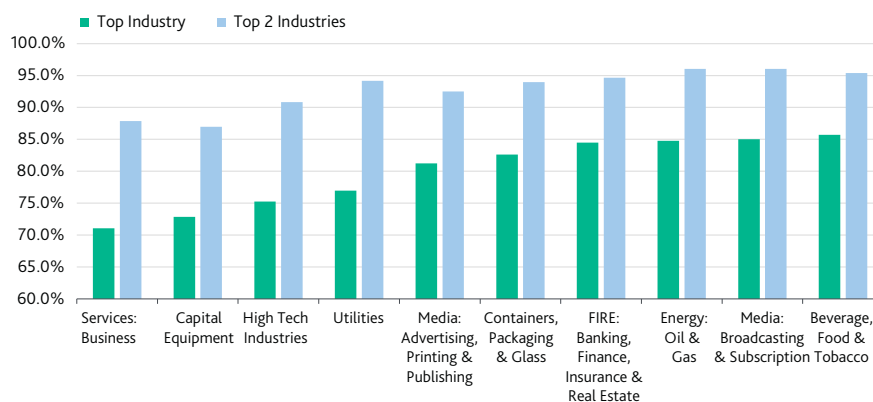
Interestingly, a more diverse range of possible industry classifications for an issuer may be a signal of a more diverse portfolio. For issuers that have operations across many industries and thus could be subject to a host of alternative industry classifications, there could be embedded diversification within the operations of the issuer. The existence and extent of this effect across CLOs is outside the scope of this paper.

TABLE 2: PERCENT OF ISSUERS INDICATED AS THE SPECIFIED INDUSTRY SORTED BY AGREEMENT OF AN INDUSTRY (\$ BILLIONS).

Industry	Balance	Count	Average of Top Ind %	Maximum	Minimum
Forest Products & Paper	0.84	6	62.0%	92.5%	43.6%
Sovereign & Public Finance	0.01	1	69.4%	69.4%	69.4%
Services: Business	20.36	131	71.1%	100.0%	25.5%
Capital Equipment	12.61	93	72.8%	100.0%	25.2%
High Tech Industries	38.09	154	75.3%	100.0%	25.1%
Environmental Industries	3.94	40	75.4%	100.0%	29.8%
Consumer goods: Durable	3.80	50	75.6%	100.0%	37.2%
Services: Consumer	7.83	52	76.1%	100.0%	30.7%
Media: Diversified & Production	3.05	16	76.3%	100.0%	36.4%
Diversified/Conglomerate Service	0.83	30	76.8%	100.0%	39.2%
Energy: Electricity	0.26	10	76.9%	100.0%	28.9%
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Construction & Building	8.27	74	77.3%	100.0%	19.0%
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No Moody's Industry	3.07	114	83.5%	100.0%	23.4%
Transportation: Cargo	4.15	47	83.6%	100.0%	33.9%
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Aerospace & Defense	10.61	77	90.6%	100.0%	38.9%
Grand Total	436.10	2,567	83.0%	100.0%	19.0%

Source: Moody's Analytics Structured Finance Portal

CHART 2: CONFORMITY OF THE ISSUERS WITHIN ONE OF ANY TWO INDUSTRIES



Source: Moody's Analytics Structured Finance Portal

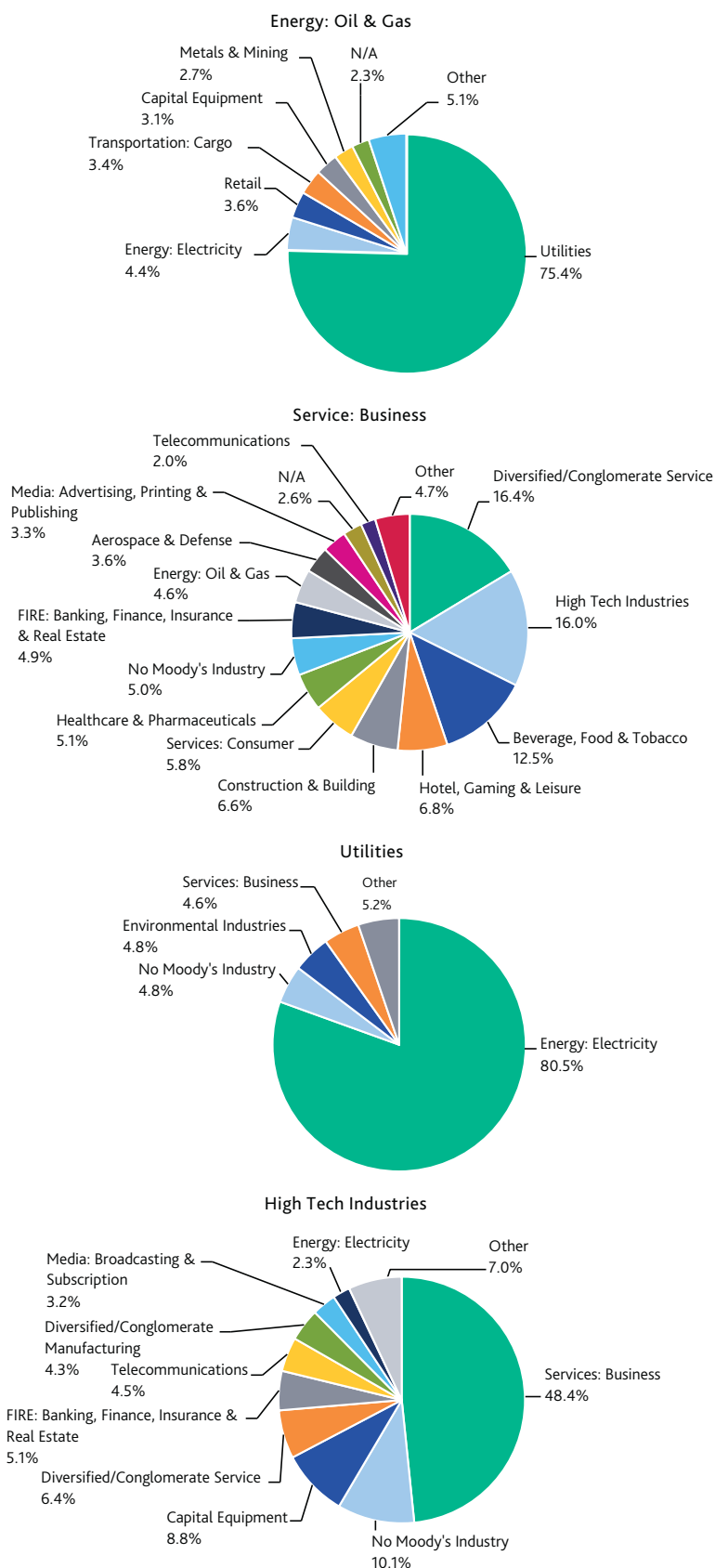
From Table 1 we note that 17 Industries have more than \$10bn of collateral classified in that industry. Within those 17, the 10 with the lowest agreement on the Industry of the issuers are displayed in Chart 2. For example, for the 131 issuers that listed Services: Business as the most selected Industry, they were classified as such on 71% of the monthly reports. (Conversely, Table 1 shows the corresponding rate for Healthcare & Pharmaceuticals is over 88%.) For those 10 industries, Chart 2 compares the percent for the most selected Industry for an issuer with the percentage for the two most selected. The lower the Top 2 Industries percentage is, the more diverse the opinions are for issuers in the referenced Top Industry. For the issuers where Utilities is the Top Industry, 77% show Utilities and 94% show Utilities and one other industry (generally Energy). Conversely, 88% show Services: Business and one other Industry leaving the remaining 12% is spread across multiple Industries. Again, this could mean that the issuer is in multiple industries or there could be another explanation. Further analysis or discussions with the CLO manager may be appropriate.

To further analyze industry classifications, we selected four industries for more analysis. The next few tables display for the issuers in the Energy: Oil & Gas, Services: Business, High Tech and Utilities Industries the other common industries indicated in the monthly surveillance reports. Specifically, the charts show the second most commonly selected industry for those issuers where one of four just listed industries is the majority selection⁷. The other industries are listed in order of prevalence. Let's take a deeper look at Energy: Oil & Gas since that is an industry under market focus. Table 1 showed that 85% of the time monthly reports labeled issuers in this industry⁸ which means that on average in 15% of the monthly reports the managers indicated the issuer as being in another industry. 75% of the time when Energy: Oil & Gas was not listed, Utilities was and 4.4% of the time Energy: Electricity is displayed. This divergence becomes relevant when Investors/Risk Managers analyzing a CLO only look at the industry percentages without evaluating the actual collateral. In other words, 15% of the time, issuers that 85% of the monthly reports report as Energy: Oil & Gas will be reported as another industry. Conversely, some issuers are reported as Energy: Oil & Gas on a few reports, but not the majority (see the pie chart for Service: Business). Thus to properly determine exposures, one should both look at what is reported as well as the specific collateral since users may not agree with the industry shown. As noted, some managers call issuers that provide transport services to offshore wells Energy: Oil & Gas while others Transportation.

⁷ N/A means the top industry was selected 100% of the time for the issuer.

⁸ According to a majority or at least a plurality of the monthly surveillance reports.

CHARTS 3A-D: ALTERNATIVE INDUSTRY OF FOUR SELECTED INDUSTRIES.



Source: Moody's Analytics Structured Finance Portal

Utilities is also dominated by a second choice (in this case Energy: Electricity) while High Tech Industries and particularly Service: Business are more broad. These four charts show all second most common industries over 2% of the total for that Top Industry.

Table 3 shows the largest two issuers in each industry with over \$1 billion of assets along with the percent of monthly reports which report the issuer in the indicated industry. On average, 75% of the reports show these issuers in the specified industry with a high of 100% (Federal Mogul Holdings) and a low of only 27% (Travelport Holdings). 21% of the issuers show the specified industry in at least 95% of the monthly reports.

TABLE 3: TWO LARGEST ISSUERS IN INDUSTRIES WITH OVER \$1BN OF COLLATERAL

Industry (Top 2 Issuers)	Balance	Ave Top Ind %	Percent of Industry
Aerospace & Defense	10,614,586,433		
TRANSDIGM GROUP INCORPORATED	1,639,084,745	99.5%	15.4%
AERCAP HOLDINGS N.V.	723,897,996	46.3%	6.8%
Automotive	15,079,256,794		
FIAT CHRYSLER AUTOMOBILES N.V.	1,987,301,121	99.4%	13.2%
FEDERAL-MOGUL HOLDINGS CORPORATION	1,219,303,174	100.0%	8.1%
Beverage, Food & Tobacco	15,959,451,319		
ARAMARK	1,477,206,437	34.1%	9.3%
RESTAURANT BRANDS INTERNATIONAL INC.	793,582,162	69.7%	5.0%
Capital Equipment	12,612,128,867		
RENAISSANCE PARENT CORP	1,159,605,069	84.4%	9.2%
ACCUDYNE INDUSTRIES BORROWER S.C.A.	960,114,087	63.8%	7.6%
Chemicals, Plastics, & Rubber	21,922,145,902		
INEOS GROUP LIMITED	2,575,471,616	94.5%	11.7%
HUNTSMAN CORPORATION	1,281,083,676	99.9%	5.8%
Construction & Building	8,266,656,111		
JELD-WEN, INC.	590,674,531	73.0%	7.1%
ABC SUPPLY HOLDING CORP	563,747,990	85.2%	6.8%
Consumer goods: Durable	3,803,508,701		
SERTA SIMMONS BEDDING, LLC	596,712,232	89.2%	15.7%
VARSITY BRANDS, INC.	504,944,169	46.0%	13.3%
Consumer goods: Non-durable	7,311,183,332		
MACANDREWS & FORBES HOLDINGS INC	907,816,973	92.9%	12.4%
ALPHABET HOLDING COMPANY, INC.	694,133,800	36.0%	9.5%
Containers, Packaging & Glass	13,120,425,190		
BERRY PLASTICS GROUP, INC.	1,523,041,328	74.9%	11.6%
REYNOLDS GROUP HOLDINGS LIMITED	1,195,282,293	93.4%	9.1%
Energy: Oil & Gas	14,284,261,532		
ENERGY TRANSFER EQUITY, L.P.	1,040,114,066	76.2%	7.3%
SEADRILL LIMITED	940,425,904	90.9%	6.6%
Environmental Industries	3,944,374,596		
ADS WASTE HOLDINGS, INC.	750,033,549	98.4%	19.0%
WASTE INDUSTRIES USA, INC.	389,630,181	63.1%	9.9%
FIRE: Banking, Finance, Insurance & Real Estate	31,665,557,935		
FIRST DATA CORPORATION	4,102,767,559	54.8%	13.0%
NEWASURION CORPORATION	2,921,263,387	63.7%	9.2%
Healthcare & Pharmaceuticals	51,957,577,115		
VALEANT PHARMACEUTICALS INTERNATIONAL, INC	3,685,074,591	95.7%	7.1%
COMMUNITY HEALTH SYSTEMS, INC.	2,594,223,565	99.5%	5.0%
High Tech Industries	38,091,492,610		
DELL INC.	2,756,050,241	89.0%	7.2%
INFOR SOFTWARE PARENT, INC.	1,501,985,951	57.7%	3.9%

TABLE 3 CON'T

Industry (Top 2 Issuers)	Balance	Ave Top Ind %	Percent of Industry
Hotel, Gaming & Leisure	27,820,957,338		
SCIENTIFIC GAMES CORPORATION	1,866,064,127	88.3%	6.7%
DELTA TOPCO LIMITED	1,538,332,261	77.5%	5.5%
Media: Advertising, Printing & Publishing	13,295,960,277		
TRIBUNE MEDIA COMPANY	1,459,987,001	58.1%	11.0%
SPRINGER SBM ONE GMBH	1,218,766,236	83.7%	9.2%
Media: Broadcasting & Subscription	27,178,756,478		
ALTICE S.A.	4,065,088,340	57.4%	15.0%
LIBERTY GLOBAL PLC	3,635,612,606	59.0%	13.4%
Media: Diversified & Production	3,051,238,425		
WME IMG, LLC	1,262,052,176	42.0%	41.4%
MEDIARENA ACQUISITION B.V.	614,982,674	38.4%	20.2%
Metals & Mining	8,109,333,650		
FORTESCUE METALS GROUP LTD	1,792,460,465	99.9%	22.1%
FMSA HOLDINGS INC.	700,645,508	72.1%	8.6%
Retail	27,866,763,693		
ALBERTSON'S HOLDINGS LLC	2,440,121,967	72.2%	8.8%
PETSMART, INC.	1,454,713,479	96.6%	5.2%
Services: Business	20,361,908,924		
ADVANTAGE SALES & MARKETING INC.	1,195,742,159	51.8%	5.9%
TRAVELPORT HOLDINGS LIMITED	1,182,862,416	26.8%	5.8%
Services: Consumer	7,825,692,198		
SERVICEMASTER COMPANY, LLC (THE)	1,060,652,710	68.3%	13.6%
PROTECTION ONE, INC.	639,122,216	57.6%	8.2%
Telecommunications	19,733,144,647		
LEVEL 3 COMMUNICATIONS, INC.	1,350,296,952	99.3%	6.8%
AVAYA, INC.	1,248,237,659	87.6%	6.3%
Transportation: Cargo	4,148,946,563		
OVERSEAS SHIPHOLDING GROUP, INC.	606,411,902	99.8%	14.6%
LINEAGE LOGISTICS HOLDINGS, LLC	329,413,663	61.7%	7.9%
Transportation: Consumer	8,139,186,091		
AMERICAN AIRLINES GROUP INC.	2,552,415,357	89.8%	31.4%
SABRE HOLDINGS CORPORATION	1,392,921,408	33.1%	17.1%
Utilities	14,671,596,679		
CALPINE CORPORATION	1,973,515,883	81.4%	13.5%
ENERGY FUTURE HOLDINGS CORP.	1,664,467,065	89.2%	11.3%

Source: Moody's Analytics Structured Finance Portal

In addition to looking at the largest issuers, it is useful to analyze the issuers for which there is the least agreement on the industry. Table 4 shows this by industry for issuers with total balances over \$200 million. The issuer with the lowest percent of monthly reports showing a particular industry is Unifrax I at 25% in the Capital Equipment industry (which is in 41 CLO's). Even the three most indicated industries for Unifrax only represent 2/3 of the monthly reports. However, that is not even the lowest for the top 3 industries for an issuer. 4L Holdings in the Services: Business industry only has 59% consistency for the top three. One mitigate to the variance among industry designations for these is that Capital Equipment and Services are broad industries with many potential alternative industries which managers may think are more relevant.

TABLE 4: LEAST CONSISTENT ISSUERS BY INDUSTRY⁹ (ISSUERS OVER \$200MM)

Industry/ two least consistent issuers ¹⁰	Balance	Ave Top Industry %	Ave Top 2 Industry %	Ave Top 3 Industry %
Aerospace & Defense	1,257,316,250			
AERCAP HOLDINGS N.V.	723,897,996	46.3%	78.8%	87.6%
DONCASTERS GROUP LTD	533,418,254	45.2%	86.3%	91.4%
Automotive	1,183,648,182			
FINANCIERE TRUCK (INVESTISSEMENT)	218,169,193	31.2%	57.0%	75.1%
GATES GLOBAL LLC	965,478,990	42.4%	79.5%	86.6%
Beverage, Food & Tobacco	1,679,602,966			
ARAMARK	1,477,206,437	34.1%	64.1%	86.4%
NPC INTERNATIONAL, INC.	202,396,529	33.6%	66.9%	94.1%
Capital Equipment	652,139,541			
SODELHO S.A.	357,650,325	32.7%	46.6%	58.5%
UNIFRAX I LLC	294,489,216	25.2%	50.2%	66.8%
Chemicals, Plastics, & Rubber	1,126,255,223			
FLINT GROUP HOLDINGS SARL	922,374,618	57.9%	70.8%	80.2%
NUSIL INVESTMENTS, LLC	203,880,605	54.6%	92.3%	96.6%
Construction & Building	572,795,279			
HD SUPPLY, INC.	250,018,458	48.8%	84.3%	89.7%
NTK HOLDINGS, INC.	322,776,821	55.3%	85.1%	91.4%
Consumer goods: Durable	722,728,057			
FGI HOLDING COMPANY, INC.	217,783,888	37.2%	73.6%	88.7%
VARSITY BRANDS, INC.	504,944,169	46.0%	86.2%	98.5%
Consumer goods: Non-durable	947,280,975			
ALPHABET HOLDING COMPANY, INC.	694,133,800	36.0%	58.2%	74.7%
ATRIUM INNOVATIONS INC.	253,147,175	34.3%	64.8%	86.2%
Containers, Packaging & Glass	583,057,519			
IBC CAPITAL LIMITED	347,075,334	45.8%	73.5%	98.1%
TANK HOLDING CORP.	235,982,185	55.6%	78.1%	84.6%
Energy: Oil & Gas	493,773,798			
MRC GLOBAL INC.	287,757,396	33.5%	52.7%	69.5%
W3 CO.	206,016,402	26.7%	49.5%	69.9%
Environmental Industries	653,431,309			
ERM WORLDWIDE LIMITED	263,801,128	46.2%	78.2%	87.4%
WASTE INDUSTRIES USA, INC.	389,630,181	63.1%	80.2%	96.9%
FIRE: Banking, Finance, Insurance & Real Estate	632,349,878			
AHLSSELL AB (PUBL)	424,014,670	27.1%	47.7%	63.1%
COMPASS GROUP DIVERSIFIED HOLDINGS LLC	208,335,208	33.3%	63.9%	82.3%
Forest Products & Paper	428,413,285			
CARAUSTAR INDUSTRIES, INC.	428,413,285	57.1%	88.2%	95.0%
Healthcare & Pharmaceuticals	1,016,900,276			
EMDEON INC.	786,694,175	33.4%	57.4%	78.0%
OGF HOLDING SAS	230,206,101	32.8%	64.5%	76.3%
High Tech Industries	970,447,502			
IPREO HOLDINGS LLC (OLD)	241,235,550	27.5%	54.0%	79.7%
TECHNICOLOR S.A.	729,211,953	30.4%	52.5%	72.5%
Hotel, Gaming & Leisure	786,956,753			
SRAM CORPORATION	228,502,568	37.7%	61.9%	82.3%
WARNER MUSIC GROUP CORP.	558,454,185	36.4%	68.9%	84.7%
Media: Advertising, Printing & Publishing	805,653,225			
PDM HOLDINGS CORP	596,585,900	41.8%	72.6%	82.3%
SCOUT24 AG	209,067,326	42.4%	68.5%	88.6%

⁹ All industries are not represented as some industries do not have issuers that have total balances of at least \$200mm across all CLO's.

¹⁰ Only one issuer meets the size criteria.

TABLE 4 CON'T

Industry/ two least consistent issuers ¹⁰	Balance	Ave Top Industry %	Ave Top 2 Industry %	Ave Top 3 Industry %
Media: Broadcasting & Subscription	482,415,865			
LEARFIELD COMMUNICATIONS, INC.	208,463,298	47.3%	73.4%	89.0%
SESAC HOLDINGS, INC.	273,952,567	51.3%	85.7%	92.7%
Media: Diversified & Production	756,849,047			
CAA HOLDINGS, LLC	383,675,107	36.4%	69.7%	84.3%
DELUXE ENTERTAINMENT SERVICES GROUP, INC.	373,173,939	37.0%	62.0%	83.4%
Metals & Mining	915,912,271			
FMSA HOLDINGS INC.	700,645,508	72.1%	85.4%	96.9%
SOUTHWIRE COMPANY, LLC	215,266,762	31.0%	51.8%	71.7%
Retail	557,489,758			
CWGS GROUP, LLC	346,111,778	43.5%	79.6%	93.9%
LEONARDO ACQUISITION CORP.	211,377,980	28.0%	50.1%	67.8%
Services: Business	1,554,472,992			
4L HOLDINGS CORPORATION	371,610,576	25.5%	44.9%	59.1%
TRAVELPORT HOLDINGS LIMITED	1,182,862,416	26.8%	49.0%	71.0%
Services: Consumer	499,605,524			
PODS, INC.	277,307,099	30.7%	53.7%	68.6%
RENAISSANCE LEARNING, INC. (NEW)	222,298,425	32.7%	55.7%	72.2%
Telecommunications	1,599,940,172			
TNS, INC.	365,456,624	56.6%	73.3%	89.1%
WEST CORPORATION	1,234,483,548	38.3%	70.2%	87.8%
Transportation: Cargo	560,924,388			
LINEAGE LOGISTICS HOLDINGS, LLC	329,413,663	61.7%	78.3%	89.8%
SYNCREON GROUP HOLDINGS B.V.	231,510,725	33.9%	57.6%	74.9%
Transportation: Consumer	1,638,130,471			
SABRE HOLDINGS CORPORATION	1,392,921,408	33.1%	50.7%	63.6%
SCANDFERRIES APS	245,209,063	50.8%	78.3%	97.9%
Utilities	976,388,721			
GRANITE ACQUISITION, INC.	675,848,500	33.8%	66.8%	99.1%
POWER MIDCO, LLC	300,540,221	35.2%	66.9%	96.8%

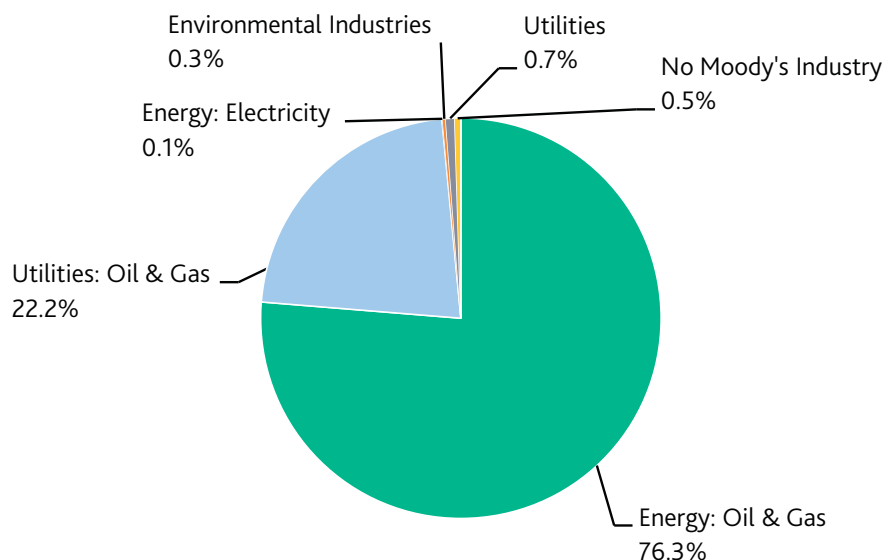
Source: Moody's Analytics Structured Finance Portal

Conclusion

While it may appear straight forward, the indication of the industry for a particular issuer may be both complicated and/or inconsistent. Across the CLO market, different managers have determined that 60% of the issuers are in more than one industry. This has implications for both CLO maintenance tests such as the industry concentration limit and the diversity score as well as general industry level monitoring by investors/ risk managers/regulators. The industry variation may be for a multitude of reasons such as different issues from an issuer are in different industries or the operation could be interpreted as being in one of several industries. Alternative explanations are also possible. To fully analyze a CLO, Moody's Analytics suggests looking at the underlying collateral and following up with further analysis or by calling the manager for any collateral on which there is a question on the industry designation. This would afford a more broad analysis of Industry exposures.

Appendix

This appendix shows the exposures to the issuer Energy Transfer Equity. The issuer is in the CLO's of 74 different managers. The pie chart is a breakdown of the industries indicated for Energy Transfer Equity. Energy: Oil & Gas is the dominate industry, but a sizable number of reports show Utilities: Oil & Gas.



The next page shows a breakdown on a manager by manager basis. Please notice the rows shaded in peach. The managers in these rows have called Energy Transfer Equity different industries in various monthly reports. For example, Managers 6 & 11 are fairly evenly split between Energy: Oil & Gas and Utilities: Oil & Gas. Some may say that these are similar industries, but the use of more than one industry will likely change the industry concentration results as well as the diversity score. A more unusual result is from Manager 26. This manager in addition to labeling Energy Transfer Equity the aforementioned two industries, it also lists \$2.7mm as Environmental Industries. Further analysis on the Structured Finance Portal shows that despite being different industries, the specific issues from Energy Transfer Equity owned by Manager 26 are exactly the same.

Managers	Energy: Oil & Gas		Utilities: Oil & Gas		Energy: Electricity		Environmental Industries		Utilities		No Moody's Industry		Total
	Balance	Percent	Balance	Percent	Balance	Percent	Balance	Percent	Balance	Percent	Balance	Percent	Balance
Manager 1	53,994,922	5.1%	14,715,000	1.4%	-	-	-	-	-	-	-	-	68,709,922
Manager 2	8,583,750	0.8%	54,168,530	5.1%	-	-	-	-	-	-	-	-	62,752,280
Manager 3	54,467,335	5.2%	-	-	-	-	-	-	-	-	-	-	54,467,335
Manager 4	3,000,000	0.3%	36,800,003	3.5%	-	-	-	-	-	-	-	-	39,800,003
Manager 5	18,977,000	1.8%	19,448,291	1.8%	-	-	-	-	-	-	-	-	38,425,291
Manager 6	23,633,432	2.2%	13,911,197	1.3%	-	-	-	-	-	-	-	-	37,544,629
Manager 7	37,139,503	3.5%	-	-	-	-	-	-	-	-	-	-	37,139,503
Manager 8	33,658,431	3.2%	-	-	-	-	-	-	-	-	3,000,000	0.3%	36,658,431
Manager 9	36,549,501	3.5%	-	-	-	-	-	-	-	-	-	-	36,549,501
Manager 10	35,836,139	3.4%	-	-	-	-	-	-	-	-	-	-	35,836,139
Manager 11	18,636,500	1.8%	15,480,579	1.5%	-	-	-	-	-	-	-	-	34,117,079
Manager 12	32,967,724	3.1%	-	-	-	-	-	-	-	-	-	-	32,967,724
Manager 13	30,966,441	2.9%	-	-	-	-	-	-	-	-	-	-	30,966,441
Manager 14	29,023,530	2.7%	-	-	-	-	-	-	-	-	-	-	29,023,530
Manager 15	27,534,415	2.6%	-	-	-	-	-	-	-	-	-	-	27,534,415
Manager 16	25,773,236	2.4%	-	-	-	-	-	-	-	-	-	-	25,773,236
Manager 17	6,300,000	0.6%	15,803,945	1.5%	-	-	-	-	-	-	-	-	22,103,945
Manager 18	21,786,661	2.1%	-	-	-	-	-	-	-	-	-	-	21,786,661
Manager 19	21,695,737	2.1%	-	-	-	-	-	-	-	-	-	-	21,695,737
Manager 20	21,050,935	2.0%	-	-	-	-	-	-	-	-	-	-	21,050,935
Manager 21	20,799,999	2.0%	-	-	-	-	-	-	-	-	-	-	20,799,999
Manager 22	16,647,059	1.6%	3,000,000	0.3%	-	-	-	-	-	-	-	-	19,647,059
Manager 23	17,844,118	1.7%	-	-	-	-	-	-	-	-	-	-	17,844,118
Manager 24	2,410,765	0.2%	15,431,000	1.5%	-	-	-	-	-	-	-	-	17,841,765
Manager 25	15,647,059	1.5%	-	-	-	-	-	-	-	-	-	-	15,647,059
Manager 26	3,262,500	0.3%	8,600,000	0.8%	-	-	2,700,000	0.3%	-	-	-	-	14,562,500
Manager 27	14,056,728	1.3%	-	-	-	-	-	-	-	-	371,765	0.0%	14,428,493
Manager 28	14,147,059	1.3%	-	-	-	-	-	-	-	-	-	-	14,147,059
Manager 29	13,220,732	1.3%	-	-	-	-	-	-	-	-	-	-	13,220,732
Manager 30	12,378,908	1.2%	-	-	-	-	-	-	-	-	-	-	12,378,908
Manager 31	-	-	10,717,647	1.0%	-	-	-	-	-	-	-	-	10,717,647
Manager 32	9,997,171	0.9%	-	-	-	-	-	-	-	-	-	-	9,997,171
Manager 33	-	-	8,858,824	0.8%	-	-	-	-	-	-	-	-	8,858,824
Manager 34	6,292,667	0.6%	-	-	541,810	0.1%	-	-	-	-	812,714	0.1%	7,647,191
Manager 35	7,600,000	0.7%	-	-	-	-	-	-	-	-	-	-	7,600,000
Manager 36	7,139,228	0.7%	-	-	-	-	-	-	-	-	-	-	7,139,228
Manager 37	6,858,824	0.6%	-	-	-	-	-	-	-	-	-	-	6,858,824
Manager 38	2,000,000	0.2%	4,647,059	0.4%	-	-	-	-	-	-	-	-	6,647,059
Manager 39	6,358,824	0.6%	-	-	-	-	-	-	-	-	-	-	6,358,824
Manager 40	5,717,647	0.5%	-	-	-	-	-	-	-	-	-	-	5,717,647
Manager 41	5,629,412	0.5%	-	-	-	-	-	-	-	-	-	-	5,629,412
Manager 42	5,500,000	0.5%	-	-	-	-	-	-	-	-	-	-	5,500,000
Manager 43	-	-	2,840,000	0.3%	-	-	-	-	2,587,500	0.2%	-	-	5,427,500
Manager 44	5,111,765	0.5%	-	-	-	-	-	-	-	-	-	-	5,111,765
Manager 45	4,906,324	0.5%	-	-	-	-	-	-	-	-	-	-	4,906,324
Manager 46	4,762,212	0.5%	-	-	-	-	-	-	-	-	-	-	4,762,212
Manager 47	-	-	4,500,000	0.4%	-	-	-	-	-	-	-	-	4,500,000
Manager 48	3,960,000	0.4%	-	-	-	-	-	-	-	-	-	-	3,960,000
Manager 49	3,858,824	0.4%	-	-	-	-	-	-	-	-	-	-	3,858,824
Manager 50	3,800,000	0.4%	-	-	-	-	-	-	-	-	-	-	3,800,000
Manager 51	3,717,648	0.4%	-	-	-	-	-	-	-	-	-	-	3,717,648
Manager 52	3,717,647	0.4%	-	-	-	-	-	-	-	-	-	-	3,717,647
Manager 53	3,161,765	0.3%	-	-	-	-	-	-	-	-	-	-	3,161,765
Manager 54	-	-	-	-	-	-	-	-	3,075,000	0.3%	-	-	3,075,000

TABLE CON'T

Managers	Energy: Oil & Gas		Utilities: Oil & Gas		Energy: Electricity		Environmental Industries		Utilities		No Moody's Industry		Total
	Balance	Percent	Balance	Percent	Balance	Percent	Balance	Percent	Balance	Percent	Balance	Percent	Balance
Manager 55	3,000,000	0.3%	-		-		-		-		-		3,000,000
Manager 56	2,974,118	0.3%	-		-		-		-		-		2,974,118
Manager 57	-		929,412	0.1%	-		-		1,940,492	0.2%	-		2,869,904
Manager 58	2,858,824	0.3%	-		-		-		-		-		2,858,824
Manager 59	2,788,236	0.3%	-		-		-		-		-		2,788,236
Manager 60	2,788,235	0.3%	-		-		-		-		-		2,788,235
Manager 61	2,323,530	0.2%	-		-		-		-		-		2,323,530
Manager 62	2,250,000	0.2%	-		-		-		-		-		2,250,000
Manager 63	2,250,000	0.2%	-		-		-		-		-		2,250,000
Manager 64	2,250,000	0.2%	-		-		-		-		-		2,250,000
Manager 65	2,200,000	0.2%	-		-		-		-		-		2,200,000
Manager 66	2,200,000	0.2%	-		-		-		-		-		2,200,000
Manager 67	1,000,000	0.1%	-		-		-		-		1,000,000	0.1%	2,000,000
Manager 68	-		2,000,000	0.2%	-		-		-		-		2,000,000
Manager 69	1,950,000	0.2%	-		-		-		-		-		1,950,000
Manager 70	-		1,877,412	0.2%	-		-		-		-		1,877,412
Manager 71	1,858,824	0.2%	-		-		-		-		-		1,858,824
Manager 72	900,000	0.1%	-		-		-		-		-		900,000
Manager 73	-		860,000	0.1%	-		-		-		-		860,000
Manager 74	550,000	0.1%	-		-		-		-		-		550,000
Grand Total	806,221,844	76.3%	234,588,899	22.2%	541,810	0.1%	2,700,000	0.3%	7,602,992	0.7%	5,184,479	0.5%	1,056,840,024

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