

# US CLO Most Common Industry Analysis

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Overview of Analysis

# Overview

- » Managers have the discretion for which industry to designate each issuer in their collateral pool. They may choose any suitable industry.
- » For many issuers, different managers choose different industries for their collateral. For example, seven managers selected different industries for Athena Healthcare depending upon the CLO.
- » Moody's Analytics' Structured Finance team developed the concept of Moody's **Most Common Industry ("MC Industry")** which is the industry chosen most often by all managers at any given time without regard to what industry Moody's assigns the issuer.
- » A key CLO collateral quality test and certain disclosure are based upon the industry designation. The diversity score is calculated based upon the manager designation. Thus, 2 CLOs with exactly the same collateral may have different diversity scores.

# Overview

- » This report will provide analysis on the difference between the industry designations and the MC Industry.
- » The relative growth in each industry and if collateral trading is a key determinate of it.
- » The largest issuer for most managers for each industry.
- » It will show the difference in industry holdings for better vs weaker Equity NAV and Junior OC ratios for CLOs.
- » Collateral marks for industries.
- » Unless otherwise indicated, all references to industry refer to the MC Industry.

# Summary of Results

- » Healthcare & Pharmaceuticals, High Tech and FIRE: Banking, Finance, Insurance & Real Estate were the three largest industries on both March 1, 2021 and 2022. Holdings of the top two were greater than 12% each (1.5% more than reported in monthly reports).
- » While the relative holdings for some did change, the industry rankings had little variation. Nevertheless, High Tech had the largest increase in percentage of collateral and Telecommunication the largest decrease.
- » Five industries had a net decrease with all of these being the smaller industries. Media: Advertising, Printing & Publishing was the largest of these.
- » While it may appear that the most actively traded industries may have the greatest change in relative holdings, there seems to be little such correlation.

# Summary of Results

- » Analysis was also completed to determine if there was a difference in industry holdings for the best and worst performing CLOs as it relates to two key indicators: Eq NAV and Junior OC cushion.
- » Based upon such analysis, the 4<sup>th</sup> quartile CLOs based upon these metrics held significantly less Healthcare and High Tech collateral and more Utilities and Telecommunications. Again, MC industry was used so manager designation did not affect the results.
- » Healthcare and High Tech were also the most under designated industries.

# Summary of Results

- » Antidotal evidence suggests managers may be under designating to reduce the industry exposure of the largest industries for optics or to improve the diversity score.
- » The chart depicting the total exposure of the five largest industries using manager designation as compared to MC Industry further supports this suggestion. Nevertheless, going beyond antidotal evidence is challenging.
- » Looking at each manager and which industry had the lowest average mark, Media: Diversified & Production, Transportation: Cargo and Wholesale had an average minimum mark below 50. Of these three, Media: Diversified & Production was the only industry with the lowest average mark more often than twice.

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Most Common Industry



# Industry Growth and Change in Relative Sizes

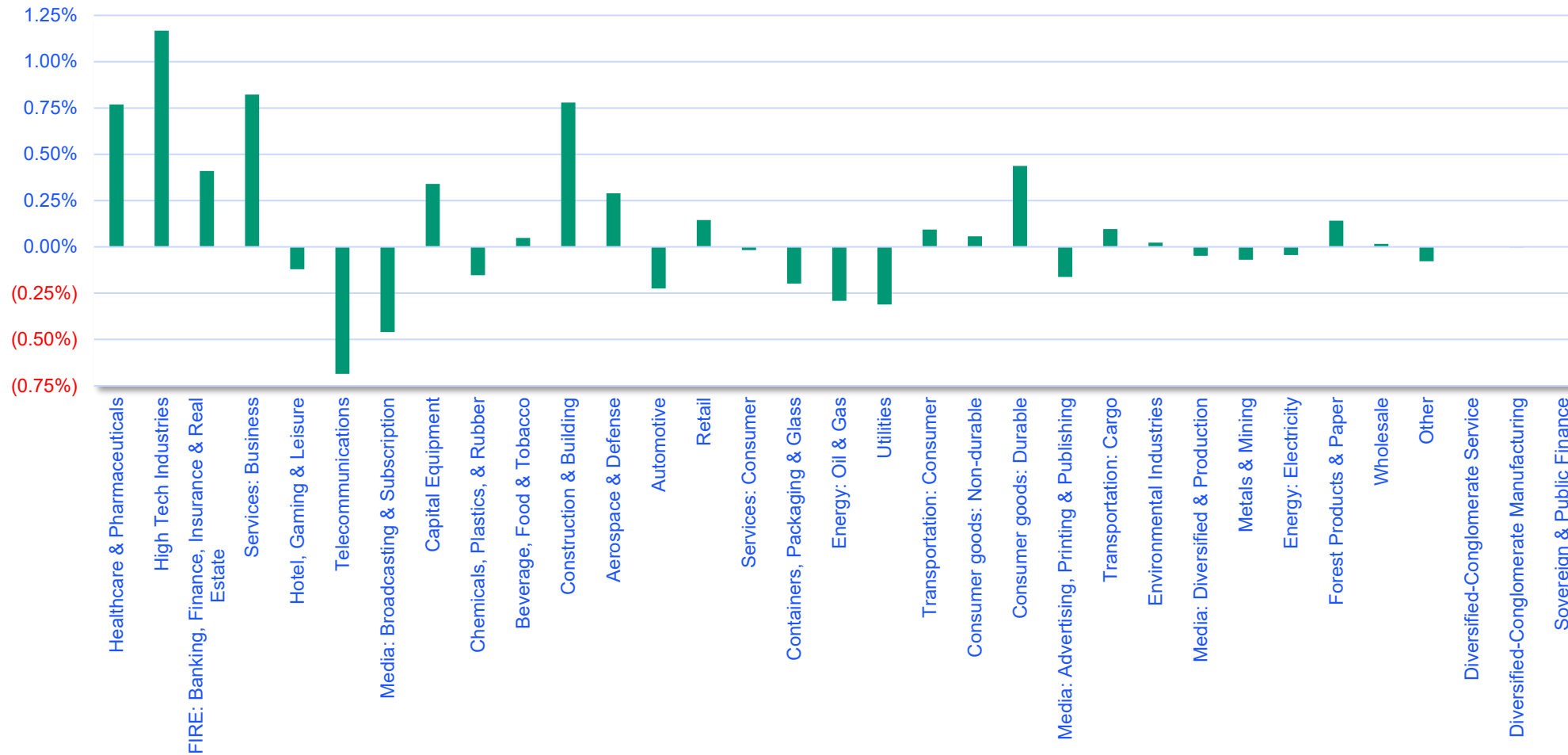
Most Common Industry	3/1/2022 Par	3/1/2022 %	2021 Sale Rate	3/1/2021 Par	3/1/2021 %	\$ Change	Change in %
Healthcare & Pharmaceuticals	\$91,497,933,722	12.60%	28.3%	\$73,651,700,299	11.83%	\$17,846,233,423	0.77%
High Tech Industries	\$89,164,760,402	12.28%	25.7%	\$69,202,870,662	11.11%	\$19,961,889,739	1.17%
FIRE: Banking, Finance, Insurance & Real Estate	\$67,621,211,881	9.31%	20.2%	\$55,486,474,882	8.90%	\$12,134,736,998	0.41%
Services: Business	\$45,948,673,225	6.33%	23.6%	\$35,159,611,762	5.51%	\$10,789,061,463	0.82%
Hotel, Gaming & Leisure	\$36,697,005,768	5.05%	29.1%	\$32,183,214,882	5.17%	\$4,513,790,885	(0.12%)
Telecommunications	\$34,526,773,280	4.76%	25.0%	\$33,895,276,799	5.44%	\$631,496,481	(0.69%)
Media: Broadcasting & Subscription	\$32,894,637,085	4.53%	24.5%	\$31,078,019,250	4.99%	\$1,816,617,835	(0.46%)
Capital Equipment	\$29,061,535,490	4.00%	22.8%	\$22,836,227,485	3.66%	\$6,225,308,005	0.34%
Chemicals, Plastics, & Rubber	\$28,638,448,922	3.94%	28.1%	\$25,605,212,615	4.10%	\$3,033,236,307	(0.15%)
Beverage, Food & Tobacco	\$27,568,917,603	3.80%	26.1%	\$23,904,851,010	3.75%	\$3,664,066,594	0.05%
Construction & Building	\$26,441,365,860	3.64%	28.3%	\$18,098,614,265	2.86%	\$8,342,751,595	0.78%
Aerospace & Defense	\$22,632,332,782	3.12%	20.3%	\$17,569,057,980	2.83%	\$5,063,274,802	0.29%
Automotive	\$22,512,895,035	3.10%	26.5%	\$20,713,838,195	3.33%	\$1,799,056,840	(0.22%)
Retail	\$20,843,550,639	2.87%	32.2%	\$16,908,160,629	2.73%	\$3,935,390,010	0.14%
Services: Consumer	\$19,792,353,484	2.73%	23.9%	\$17,227,218,442	2.74%	\$2,565,135,042	(0.02%)
Containers, Packaging & Glass	\$19,699,048,919	2.71%	31.3%	\$18,662,546,986	2.91%	\$1,036,501,933	(0.20%)
Energy: Oil & Gas	\$17,147,233,822	2.36%	29.1%	\$16,503,980,277	2.65%	\$643,253,545	(0.29%)
Utilities	\$15,633,860,405	2.15%	20.9%	\$15,401,911,393	2.46%	\$231,949,013	(0.31%)
Transportation: Consumer	\$14,538,710,292	2.00%	33.8%	\$11,878,543,822	1.91%	\$2,660,166,469	0.09%
Consumer goods: Non-durable	\$12,956,337,009	1.78%	29.8%	\$11,197,454,013	1.73%	\$1,758,882,996	0.06%
Consumer goods: Durable	\$12,743,368,402	1.76%	32.1%	\$8,412,461,610	1.32%	\$4,330,906,792	0.44%
Media: Advertising, Printing & Publishing	\$8,746,828,920	1.20%	35.6%	\$8,806,185,037	1.37%	(\$59,356,116)	(0.16%)
Transportation: Cargo	\$7,467,110,281	1.03%	24.2%	\$5,764,183,588	0.93%	\$1,702,926,693	0.10%
Environmental Industries	\$6,150,326,742	0.85%	35.7%	\$5,192,077,370	0.82%	\$958,249,372	0.02%
Media: Diversified & Production	\$5,463,082,905	0.75%	25.1%	\$5,143,759,084	0.80%	\$319,323,821	(0.05%)
Metals & Mining	\$5,398,630,016	0.74%	27.3%	\$5,017,491,488	0.81%	\$381,138,529	(0.07%)
Energy: Electricity	\$1,648,022,572	0.23%	19.3%	\$1,716,436,334	0.27%	(\$68,413,763)	(0.04%)
Forest Products & Paper	\$1,629,868,253	0.22%	16.3%	\$529,250,729	0.08%	\$1,100,617,524	0.14%
Wholesale	\$839,836,748	0.12%	14.2%	\$674,945,210	0.10%	\$164,891,538	0.02%
Other	\$157,117,305	0.02%		\$612,287,626	0.10%	(\$455,170,321)	(0.08%)
Diversified-Conglomerate Service	\$8,587,212	0.00%	81.3%	\$2,000,000	0.00%	\$6,587,212	0.00%
Diversified-Conglomerate Manufacturing	\$2,832,727	0.00%	N/A	\$14,752,270	0.00%	(\$11,919,543)	(0.00%)
Sovereign & Public Finance	\$0	0.00%	0.00%	\$200,224,924	0.00%	(\$200,224,924)	0.00%
	<b>\$726,073,197,706</b>			<b>\$609,250,840,916</b>		<b>\$116,822,356,790</b>	

# Industry Growth and Change in Relative Sizes

- » 29 industries have at least \$200mm of collateral.
- » Healthcare is the largest industry in both March 2022 and 2021, however High Tech grew by a larger amount.
- » High Tech grew the most as a percentage of total collateral with Healthcare the fourth greatest.
- » Media: Advertising, Printing & Publishing and Energy: Electricity were the only industries with greater than \$1billion of collateral which had a reduction in collateral.
- » Telecommunications has the largest reduction in percent of total collateral.
- » Athena Healthcare and McAfee are most frequently the largest issuer for each of the two largest industries.

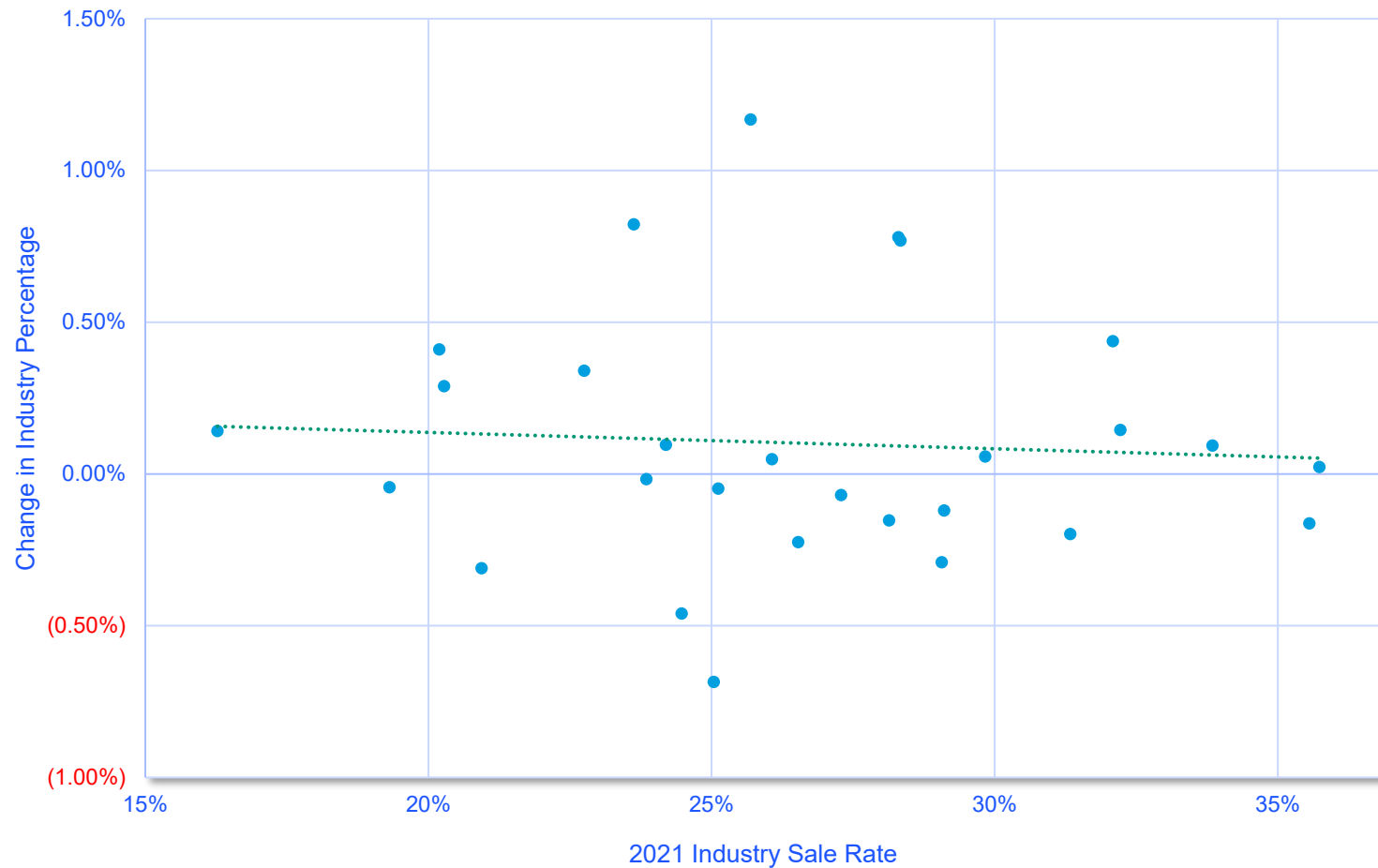
# Change in Relative Sizes of Most Common Industries

Change in % of Collateral Sorted by Industry Size



# Sales Rate vs Change in Industry Collateral Percent

Industry Sale Rate vs Change in Industry Percentage



- » 2021 collateral sales rates ranged from 16% to 36% by industry.
- » The change in industry collateral percentage ranged from **-0.7%** to 1.2%.
- » However, there seems to be very little correlation between the two as shown by the dotted trendline.

# Most Frequent Largest Issuer by Manager/Industry

Industry	Par	Most Frequent Largest Issuer
Healthcare & Pharmaceuticals	\$91,497,933,722	ATHENAHEALTH GROUP INC.
High Tech Industries	\$89,164,760,402	MCAFEE CORP.
FIRE: Banking, Finance, Insurance & Real Estate	\$67,621,211,881	NEW ASURION CORPORATION
Services: Business	\$45,948,673,225	ALLIED UNIVERSAL HOLDCO LLC
Hotel, Gaming & Leisure	\$36,697,005,768	SCIENTIFIC GAMES CORPORATION
Telecommunications	\$34,526,773,280	ALTICE NV
Media: Broadcasting & Subscription	\$32,894,637,085	LIBERTY GLOBAL PLC
Capital Equipment	\$29,061,535,490	BROOKFIELD WEC HOLDINGS SUB-AGGREGATOR
Chemicals, Plastics, & Rubber	\$28,638,448,922	INEOS LIMITED
Beverage, Food & Tobacco	\$27,568,917,603	MAVERICK, INC.
Construction & Building	\$26,441,365,860	QUIKRETE HOLDINGS, INC.
Aerospace & Defense	\$22,632,332,782	TRANSDIGM GROUP INCORPORATED
Automotive	\$22,512,895,035	POWER SOLUTIONS
Retail	\$20,843,550,639	GREAT OUTDOORS GROUP, LLC
Services: Consumer	\$19,792,353,484	PROTECTION ONE, INC.
Containers, Packaging & Glass	\$19,699,048,919	PACTIV EVERGREEN INC.
Energy: Oil & Gas	\$17,147,233,822	DELEK US HOLDINGS, INC.
Utilities	\$15,633,860,405	CALPINE CORPORATION
Transportation: Consumer	\$14,538,710,292	AMERICAN AIRLINES GROUP INC.
Consumer goods: Non-durable	\$12,956,337,009	AUTHENTIC BRANDS GROUP LLC
Consumer goods: Durable	\$12,743,368,402	OSMOSIS HOLDINGS, LP
Media: Advertising, Printing & Publishing	\$8,746,828,920	MHE US HOLDINGS, LLC
Transportation: Cargo	\$7,467,110,281	GENESEE & WYOMING INC.
Environmental Industries	\$6,150,326,742	ENERGY SOLUTIONS, INC.
Media: Diversified & Production	\$5,463,082,905	WME IMG, LLC
Metals & Mining	\$5,398,630,016	US SILICA HOLDINGS INC
Energy: Electricity	\$1,648,022,572	GRANITE ENERGY, LLC
Forest Products & Paper	\$1,629,868,253	DOMTAR CORPORATION

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## Performance vs Industry Holdings

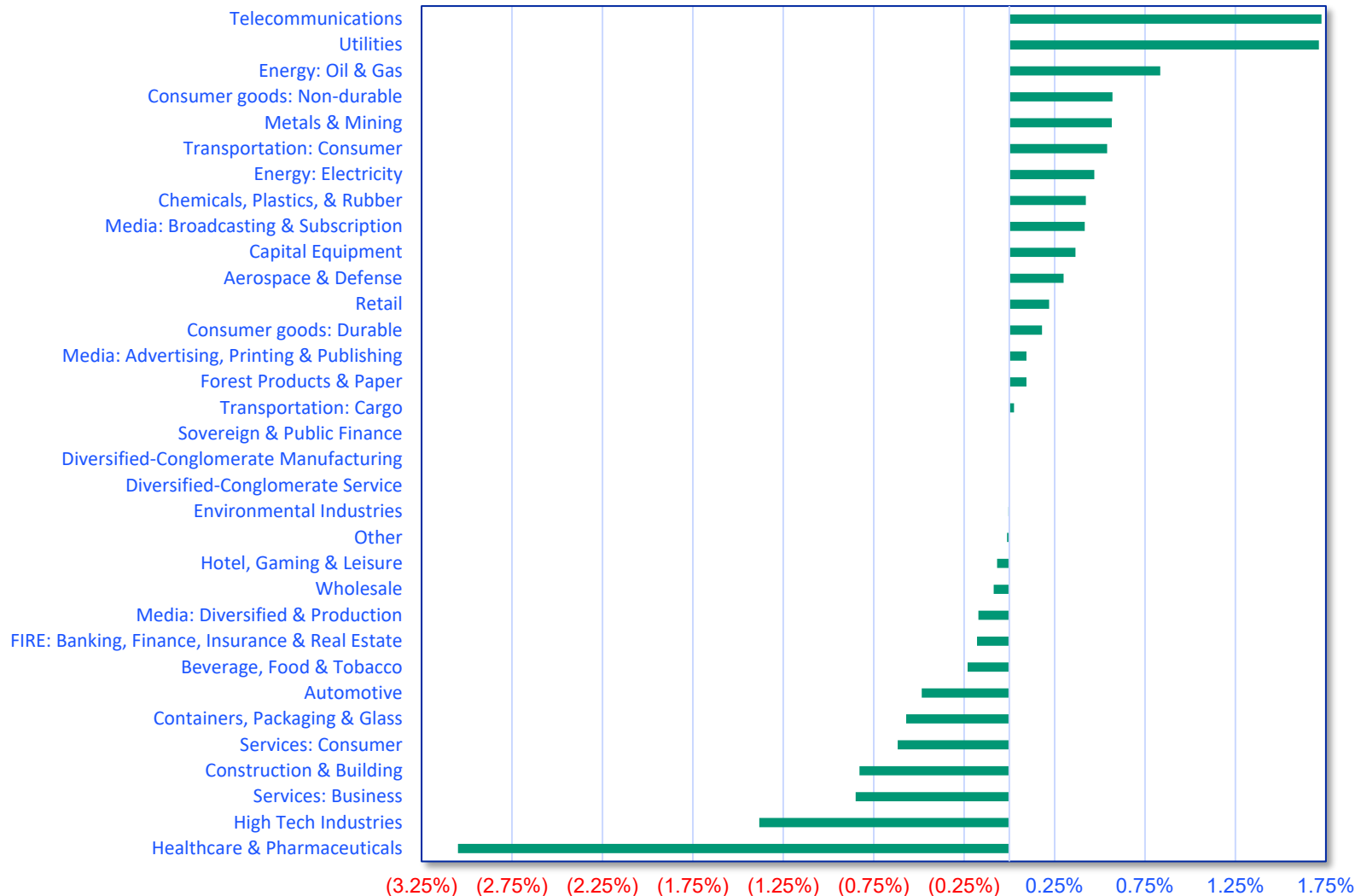
# Performance vs Industry Holdings (4<sup>th</sup> vs 1<sup>st</sup> Quartile)

Industry	Eq NAV	Jun OC Cushion
Healthcare & Pharmaceuticals	(3.33%)	(2.76%)
High Tech Industries	(1.40%)	(1.37%)
Services: Business	(0.74%)	(0.96%)
Construction & Building	(1.04%)	(0.62%)
Services: Consumer	(0.73%)	(0.51%)
Containers, Packaging & Glass	(1.00%)	(0.14%)
Automotive	(0.49%)	(0.48%)
Beverage, Food & Tobacco	(0.27%)	(0.19%)
FIRE: Banking, Finance, Insurance & Real Estate	(0.48%)	0.12%
Media: Diversified & Production	(0.09%)	(0.26%)
Wholesale	(0.10%)	(0.08%)
Hotel, Gaming & Leisure	0.03%	(0.17%)
Other	0.07%	(0.10%)
Environmental Industries	(0.11%)	0.10%
Diversified-Conglomerate Service	(0.00%)	0.00%
Diversified-Conglomerate Manufacturing	0.00%	0.00%
Sovereign & Public Finance	0.00%	0.00%
Transportation: Cargo	0.18%	(0.13%)
Forest Products & Paper	0.14%	0.05%
Media: Advertising, Printing & Publishing	0.08%	0.11%
Consumer goods: Durable	0.11%	0.25%
Retail	0.36%	0.08%
Aerospace & Defense	0.08%	0.52%
Capital Equipment	0.13%	0.60%
Media: Broadcasting & Subscription	0.69%	0.14%
Chemicals, Plastics, & Rubber	0.65%	0.20%
Energy: Electricity	0.51%	0.43%
Transportation: Consumer	0.70%	0.38%
Metals & Mining	0.70%	0.44%
Consumer goods: Non-durable	0.58%	0.56%
Energy: Oil & Gas	0.86%	0.81%
Utilities	1.87%	1.55%
Telecommunications	2.03%	1.42%

- » The comparison looks at the 1<sup>st</sup> vs 4<sup>th</sup> quartile performance of Eq NAV and Junior OC vs the difference in each industry holdings of those quartiles. For example, the 4th quartile in Eq NAV results on average held 3.33% less Healthcare & Pharmaceuticals than the 1st quartile.
- » Equity return was not focused on as its results are more dependent upon where the CLO is in its life cycle.
- » Green highlights indicate at least 50bps less holdings while red indicates at least 50bps more holdings of the industry by the 4<sup>th</sup> performance quartile.
- » Outperformers tend to hold more Healthcare, High Tech, Services: Business/Consumer, and Construction & Building.
- » Underperformers own more Consumer Non-Durables, Oil & Gas, Utilities and Telecommunications.

# Performance vs Industry Holdings

Manager Eq Nav & Jun OC Industry Holdings Difference 4th-1st Quartile



- » Average difference in holdings for the two metrics.
- » Positive numbers indicates greater holdings by the 4<sup>th</sup> quartile in performance than the 1<sup>st</sup>.
- » On average, it was better to own Healthcare than Telecommunications and Utilities.



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Most Common Industry vs  
Designated Industry

# Example: Athena Health Group

Designated Industry	Percent
Healthcare & Pharmaceuticals	77.50%
High Tech Industries	18.22%
Services: Business	3.01%
Utilities: Electric	0.02%
None Designated	1.24%

- » Four different industries are designated by managers with Healthcare & Pharmaceuticals dominating at 77% followed by High Tech.
- » Unless otherwise indicated in this report, Healthcare as the Most Common Industry is used for Athena Health Group.
- » Seven managers report the same loan as different industries in different CLOs which seems counterintuitive.

# Most Common vs Designated Industry (by size)

Industry	Most Com.	Designated	Difference
Healthcare & Pharmaceuticals	12.60%	10.80%	1.80%
High Tech Industries	12.28%	10.75%	1.53%
FIRE: Banking, Finance, Insurance & Real Estate	9.31%	8.67%	0.64%
Services: Business	6.33%	8.90%	(2.57%)
Hotel, Gaming & Leisure	5.05%	4.70%	0.36%
Telecommunications	4.76%	4.64%	0.12%
Media: Broadcasting & Subscription	4.53%	4.69%	(0.16%)
Capital Equipment	4.00%	3.40%	0.60%
Chemicals, Plastics, & Rubber	3.94%	4.02%	(0.08%)
Beverage, Food & Tobacco	3.80%	3.40%	0.39%
Construction & Building	3.64%	3.95%	(0.31%)
Aerospace & Defense	3.12%	2.84%	0.28%
Automotive	3.10%	2.76%	0.34%
Retail	2.87%	2.72%	0.15%
Services: Consumer	2.73%	3.77%	(1.05%)
Containers, Packaging & Glass	2.71%	2.63%	0.08%
Energy: Oil & Gas	2.36%	2.16%	0.20%
Utilities	2.15%	2.29%	(0.14%)
Transportation: Consumer	2.00%	2.02%	(0.02%)
Consumer goods: Non-durable	1.78%	1.73%	0.05%
Consumer goods: Durable	1.76%	1.87%	(0.12%)
Media: Advertising, Printing & Publishing	1.20%	1.63%	(0.43%)
Transportation: Cargo	1.03%	1.01%	0.02%
Environmental Industries	0.85%	0.86%	(0.01%)
Media: Diversified & Production	0.75%	1.26%	(0.51%)
Metals & Mining	0.74%	0.70%	0.04%
Energy: Electricity	0.23%	0.75%	(0.52%)
Forest Products & Paper	0.22%	0.25%	(0.02%)
Wholesale	0.12%	0.43%	(0.31%)
Other	0.02%	0.34%	(0.32%)
Diversified-Conglomerate Service	0.00%	0.01%	(0.01%)
Diversified-Conglomerate Manufacturing	0.00%	0.00%	(0.00%)
Sovereign & Public Finance	0.00%	0.06%	(0.06%)

- » Apart from Services: Business, larger industries are more likely to be under designated and smaller industries over designated vs the overall market.
- » Service: Business is the most over designated and Healthcare & Pharmaceuticals, the most under designated by managers.
- » This could be because issuers are in more than one industry or it may be a method to lower the reported industry exposure for larger industries with the corresponding benefits.

# Most Common vs Designated Industry (by difference)

Industry	Most Common	Designated	Difference
Healthcare & Pharmaceuticals	12.60%	10.80%	1.80%
High Tech Industries	12.28%	10.75%	1.53%
FIRE: Banking, Finance, Insurance & Real Estate	9.31%	8.67%	0.64%
Capital Equipment	4.00%	3.40%	0.60%
Beverage, Food & Tobacco	3.80%	3.40%	0.39%
Hotel, Gaming & Leisure	5.05%	4.70%	0.36%
Automotive	3.10%	2.76%	0.34%
Aerospace & Defense	3.12%	2.84%	0.28%
Energy: Oil & Gas	2.36%	2.16%	0.20%
Retail	2.87%	2.72%	0.15%
Telecommunications	4.76%	4.64%	0.12%
Containers, Packaging & Glass	2.71%	2.63%	0.08%
Consumer goods: Non-durable	1.78%	1.73%	0.05%
Metals & Mining	0.74%	0.70%	0.04%
Transportation: Cargo	1.03%	1.01%	0.02%
Diversified-Conglomerate Manufacturing	0.00%	0.00%	(0.01%)
Environmental Industries	0.85%	0.86%	(0.01%)
Diversified-Conglomerate Service	0.00%	0.01%	(0.02%)
Transportation: Consumer	2.00%	2.02%	(0.02%)
Forest Products & Paper	0.22%	0.25%	(0.06%)
Sovereign & Public Finance	0.00%	0.06%	(0.08%)
Chemicals, Plastics, & Rubber	3.94%	4.02%	(0.12%)
Consumer goods: Durable	1.76%	1.87%	(0.14%)
Utilities	2.15%	2.29%	(0.16%)
Media: Broadcasting & Subscription	4.53%	4.69%	(0.31%)
Construction & Building	3.64%	3.95%	(0.31%)
Wholesale	0.12%	0.43%	(0.32%)
Other	0.02%	0.34%	(0.43%)
Media: Advertising, Printing & Publishing	1.20%	1.63%	(0.51%)
Media: Diversified & Production	0.75%	1.26%	(0.52%)
Energy: Electricity	0.23%	0.75%	(1.05%)
Services: Consumer	2.73%	3.77%	(2.57%)
Services: Business	6.33%	8.90%	(0.01%)

- » Note that the three largest industries are the most underreported.
- » The only large industry over designated in Service: Business.
- » This supports the supposition that the under reporting is by choice.

# Most Common vs Designated Industry by Manager

Over Designated Industry	Frequency	Max Difference	Percent of Total Collateral
Services: Business	68	3.99%	6.33%
Services: Consumer	16	3.37%	2.73%
Utilities	8	3.38%	2.15%
High Tech Industries	8	3.30%	12.28%
Media: Broadcasting & Subscription	5	1.72%	4.53%
Energy: Electricity	5	8.37%	0.23%
Media: Advertising, Printing & Publishing	5	2.82%	1.20%
Telecommunications	4	2.76%	4.76%
Wholesale	3	2.67%	0.12%
Construction & Building	3	1.88%	3.64%
Media: Diversified & Production	3	2.69%	0.75%
Aerospace & Defense	2	1.67%	3.12%
Transportation: Consumer	2	2.80%	2.00%
Consumer goods: Durable	2	5.17%	1.76%
Beverage, Food & Tobacco	1	4.77%	3.80%
Environmental Industries	1	0.77%	0.85%
Chemicals, Plastics, & Rubber	1	2.92%	3.94%
FIRE: Banking, Finance, Insurance & RE	1	1.28%	9.31%
Retail	1	2.30%	2.87%

- » The table represents, on a manager-by-manager basis, which industry is the most **over designated** as compared to the most common industry percentage.
- » Services: Business and Services: Consumer are most frequently the most over designated industry vs the most common industry by 68 and 16 managers, respectively.
- » Utilities and High Tech are next on the list.
- » High Tech is interesting as an over designated industry by eight managers as it is the second largest industry overall.

# Most Common vs Designated Industry by Manager

Under Designated Industry	Frequency	Max Difference	Percent of Total Collateral
High Tech Industries	38	(4.38%)	12.28%
Healthcare & Pharmaceuticals	36	(3.67%)	12.60%
Capital Equipment	16	(2.44%)	4.00%
FIRE: Banking, Finance, Insurance & RE	11	(3.17%)	9.31%
Media: Broadcasting & Subscription	6	(2.67%)	4.53%
Telecommunications	5	(1.71%)	4.76%
Utilities	5	(8.76%)	2.15%
Energy: Oil & Gas	4	(4.00%)	2.36%
Hotel, Gaming & Leisure	4	(3.02%)	5.05%
Transportation: Consumer	3	(2.24%)	2.00%
Consumer goods: Durable	2	(2.19%)	1.76%
Automotive	2	(1.49%)	3.10%
Retail	2	(2.46%)	2.87%
Services: Business	2	(4.25%)	6.33%
Construction & Building	1	(1.51%)	3.64%
Services: Consumer	1	(2.18%)	2.73%
Media: Advertising, Printing & Publishing	1	(2.02%)	1.20%

- » This table represents, on a manager-by-manager basis, which industry is the most **under designated** as compared to the most common industry percentage.
- » High Tech and Healthcare are both the two largest industries and the two that are the most under designated by 38 & 36 managers, respectively.
- » High Tech appears to be a tougher industry to determine as it is near the top in both tables.
- » Capital Equipment is a smaller industry, yet it is still under designated by 16 manager.
- » As mentioned, these differences could be a result of issuers being in several sectors or a method to report lower exposure (or a combination of the two).

# Max Industry Under Designation by Manager

Par	CLOs	Manager (Top/Bottom)	Under Designated	Industry
15,184,839,764	31	Voya Alternative Asset Management	(9.53%)	High Tech Industries
7,014,419,326	13	Trinitas Capital Management LLC	(8.50%)	High Tech Industries
311,198,990	1	Gallatin Loan Management LLC	(7.88%)	FIRE: Banking, Finance, Insurance & Real Estate
926,339,333	2	New Mountain Credit CLO Advisers LLC	(7.71%)	Healthcare & Pharmaceuticals
416,808,250	1	Capital Four CLO Management K/S	(7.57%)	Healthcare & Pharmaceuticals
1,437,874,959	3	Nuveen Alternatives Advisors LLC	(7.44%)	High Tech Industries
6,407,299,672	12	Fortress Investment Group LLC	(7.22%)	Utilities
407,201,054	1	Principal Global Investors LLC	(7.16%)	Healthcare & Pharmaceuticals
7,257,910,700	15	Golub Capital Management LLC	(7.10%)	High Tech Industries
2,751,179,983	6	AIG Global Investment Group	(6.84%)	High Tech Industries
5,039,805,176	11	PineBridge Investments LLC	(1.51%)	Automotive
11,179,353,279	14	CBAM CLO Management	(1.50%)	Hotel, Gaming & Leisure
1,298,768,979	3	Irradiant Partners, LP	(1.47%)	Automotive
6,826,854,995	14	Invesco Inc.	(1.47%)	FIRE: Banking, Finance, Insurance & Real Estate
2,368,380,715	7	DoubleLine Capital LP	(1.39%)	Consumer goods: Durable
8,757,173,210	18	Napier Park Global Capital, LLC	(1.19%)	Transportation: Consumer
482,383,498	1	York CLO Managed Holdings LLC	(1.16%)	Healthcare & Pharmaceuticals
3,244,460,304	6	Greywolf Capital Management LP	(1.07%)	Telecommunications
10,684,519,764	23	Palmer Square Capital Management LLC	(1.04%)	Telecommunications
15,923,610,408	28	Sound Point Capital Management LP	(1.02%)	Capital Equipment

- » Shows the manager/industry combination that is most under designated vs MC Industry.
- » Voya and High Tech top the list of with a designation significantly less than the market as a whole for the collateral.



# Max Industry Over Designation by Manager

Par	CLOs	Manager (Top/Bottom)	Over Designated	Industry
15,184,839,764	31	Voya Alternative Asset Management	9.74%	Services: Business
407,201,054	1	Principal Global Investors LLC	8.03%	Services: Consumer
694,934,839	4	Telos Asset Management LLC	7.75%	Services: Business
1,559,735,440	4	CFI Partners, LLC	7.56%	Services: Business
6,407,299,672	12	Fortress Investment Group LLC	7.29%	Energy: Electricity
5,174,015,722	12	AXA Investment Managers	6.92%	Services: Business
10,487,691,378	22	Assured Investment Management LLC	6.77%	Services: Business
4,768,996,768	10	ORIX Holdings	6.32%	Services: Business
11,608,289,234	21	BlackRock Financial Management	6.26%	Services: Business
2,570,066,383	5	TCI Capital Management LLC	6.21%	Services: Business
4,009,443,457	8	Generate Advisors LLC	1.36%	Aerospace & Defense
8,757,173,210	18	Napier Park Global Capital, LLC	1.36%	Media: Broadcasting & Subscription
5,039,805,176	11	PineBridge Investments LLC	1.35%	Services: Business
3,244,460,304	6	Greywolf Capital Management LP	1.32%	Services: Business
2,368,380,715	7	DoubleLine Capital LP	1.32%	Construction & Building
11,179,353,279	14	CBAM CLO Management	1.28%	FIRE: Banking, Finance, Insurance & Real Estate
1,206,176,810	4	40/86 Advisors Inc.	1.25%	Energy: Electricity
23,984,028,441	42	CIFC Asset Management LLC	1.14%	Media: Diversified & Production
15,923,610,408	28	Sound Point Capital Management LP	1.10%	Services: Business
10,684,519,764	23	Palmer Square Capital Management LLC	0.77%	Environmental Industries

- » Shows the manager/industry combination that is most over designated vs MC Industry.
- » Voya (again) and Services: Business top the list of with a designation significantly more than the market as a whole for the collateral.



# Manager Over/Under Industry Designation

- » The following tables show, for each manager, the industry for which it over designates vs using the most common industry for issues as well as the under designation.
- » This granularity supports the prior three tables in this section 4.
- » Services: Business dominates as the most over designated for the largest managers with no other industry showing up more than once.
- » The under designated industries are more evenly distributed across Healthcare and High Tech for the same group.

# Most Over/Under Designated Industry by Manager

Manager	Par	Max Industry	Max	Min Industry	Min
Credit Suisse Asset Management	27,094,364,307	Services: Business	5.45%	High Tech Industries	(2.03%)
CIFC Asset Management LLC	23,984,028,441	Media: Diversified & Production	1.14%	FIRE: Banking, Finance, Insurance & RE	(1.96%)
Carlyle Investment Management LLC	22,406,943,442	Services: Consumer	3.48%	Healthcare & Pharmaceuticals	(4.65%)
Octagon Credit Investors, LLC	21,523,357,887	Media: Advertising, Printing & Pub.	2.46%	High Tech Industries	(2.70%)
PGIM	20,940,217,331	High Tech Industries	2.69%	Telecommunications	(1.94%)
Blackstone Liquid Credit Strategies LLC	20,675,443,250	Services: Consumer	2.04%	High Tech Industries	(1.87%)
Ares Management, LLC	18,871,881,075	Services: Business	3.91%	Healthcare & Pharmaceuticals	(4.22%)
MJX Asset Management LLC	16,696,002,441	Services: Business	2.70%	FIRE: Banking, Finance, Insurance & RE	(3.12%)
Sound Point Capital Management LP	15,923,610,408	Services: Business	1.10%	Capital Equipment	(1.02%)
Neuberger Berman Fixed Income LLC	15,660,445,238	Services: Business	2.24%	Healthcare & Pharmaceuticals	(1.66%)
Anchorage Capital Group LLC	15,383,090,304	Media: Broadcasting & Subscription	1.56%	Capital Equipment	(1.64%)
Voya Alternative Asset Management	15,184,839,764	Services: Business	9.74%	High Tech Industries	(9.53%)
KKR Financial Advisors LLC	14,524,547,796	Services: Business	2.90%	Healthcare & Pharmaceuticals	(3.59%)
First Eagle Investment Management	13,054,908,353	Services: Business	4.30%	Healthcare & Pharmaceuticals	(2.85%)
Bain Capital Credit	11,976,567,625	Wholesale	1.82%	Healthcare & Pharmaceuticals	(3.85%)
BlackRock Financial Management	11,608,289,234	Services: Business	6.26%	Healthcare & Pharmaceuticals	(6.21%)
Benefit Street Partners LLC	11,357,898,297	Services: Business	3.11%	High Tech Industries	(2.23%)
LCM Asset Management LLC	11,202,894,539	Services: Business	3.02%	High Tech Industries	(4.79%)
CBAM CLO Management	11,179,353,279	FIRE: Banking, Finance, Insurance & RE	1.28%	Hotel, Gaming & Leisure	(1.50%)
CVC Credit Partners LLC	11,002,094,861	Services: Business	2.77%	Capital Equipment	(2.53%)
Oak Hill Advisors LP	10,909,463,936	Services: Business	5.00%	High Tech Industries	(1.95%)
Sculptor Capital Management	10,691,851,425	Services: Business	1.74%	Capital Equipment	(1.65%)
Palmer Square Capital Management LLC	10,684,519,764	Environmental Industries	0.77%	Telecommunications	(1.04%)
Assured Investment Management LLC	10,487,691,378	Services: Business	6.77%	High Tech Industries	(2.83%)
Apollo Credit Management LLC	10,481,496,507	Services: Business	5.39%	Healthcare & Pharmaceuticals	(2.96%)
GoldenTree Asset Management LP	10,050,214,470	Services: Business	3.01%	Healthcare & Pharmaceuticals	(2.12%)
Barings LLC	9,707,366,943	Services: Business	1.56%	High Tech Industries	(1.91%)
Napier Park Global Capital, LLC	8,757,173,210	Media: Broadcasting & Subscription	1.36%	Transportation: Consumer	(1.19%)
Onex Credit Partners LLC	8,524,414,073	High Tech Industries	1.76%	Healthcare & Pharmaceuticals	(2.77%)
HPS Investment Partners, LLC	8,120,357,851	Services: Business	4.61%	Healthcare & Pharmaceuticals	(2.72%)

# Most Over/Under Designated Industry by Manager

Manager	Par	Max Industry	Max	Min Industry	Min
AGL CLO Credit Management LLC	7,929,188,102	Media: Advertising, Printing & Pub.	2.78%	High Tech Industries	(2.85%)
Sixth Street Partners	7,787,027,024	Media: Diversified & Production	4.21%	High Tech Industries	(5.20%)
Elmwood Asset Management LLC	7,679,976,273	Services: Business	3.26%	Healthcare & Pharmaceuticals	(3.17%)
Golub Capital Management LLC	7,257,910,700	Services: Consumer	2.63%	High Tech Industries	(7.10%)
Brigade Capital Management LP	7,217,084,304	Services: Business	5.16%	High Tech Industries	(3.43%)
Canyon Capital Advisors LLC	7,021,096,933	Services: Business	4.51%	High Tech Industries	(4.18%)
Trinitas Capital Management LLC	7,014,419,326	Services: Business	3.07%	High Tech Industries	(8.50%)
Invesco Inc.	6,826,854,995	Services: Business	1.98%	FIRE: Banking, Finance, Insurance & RE	(1.47%)
Marble Point Credit Management LLC	6,649,407,712	Services: Business	1.94%	Healthcare & Pharmaceuticals	(3.16%)
Wellfleet Credit Partners LLC	6,489,572,713	Telecommunications	2.25%	High Tech Industries	(4.02%)
Fortress Investment Group LLC	6,407,299,672	Energy: Electricity	7.29%	Utilities	(7.22%)
Intermediate Capital Group plc	6,056,100,810	Energy: Electricity	4.84%	Utilities	(4.73%)
Vibrant Capital Partners	6,014,548,913	Utilities	2.80%	High Tech Industries	(4.29%)
Angelo, Gordon & Company LP	5,519,097,803	Services: Consumer	3.20%	Capital Equipment	(3.66%)
King Street Capital Management	5,324,744,326	Services: Business	3.29%	Healthcare & Pharmaceuticals	(2.37%)
AXA Investment Managers	5,174,015,722	Services: Business	6.92%	High Tech Industries	(4.62%)
PineBridge Investments LLC	5,039,805,176	Services: Business	1.35%	Automotive	(1.51%)
Alcentra Inc.	5,025,260,492	Telecommunications	1.91%	Services: Consumer	(2.18%)
AEGON USA Investment Management, LLC	4,996,468,450	Services: Business	4.23%	Capital Equipment	(2.50%)
Crescent Capital Group LP	4,985,635,688	Services: Business	6.16%	High Tech Industries	(2.97%)
American Money Management Corporation	4,947,523,384	Services: Business	2.37%	Capital Equipment	(2.18%)
ArrowMark Colorado Holdings, LLC	4,785,270,723	Media: Advertising, Printing & Pub.	2.51%	High Tech Industries	(5.34%)
ORIX Holdings	4,768,996,768	Services: Business	6.32%	High Tech Industries	(2.86%)
ZAIS Group Inc.	4,579,704,888	Utilities	2.99%	Energy: Oil & Gas	(2.52%)
OakTree Capital Management LLC	4,388,688,823	Services: Business	3.83%	Utilities	(3.71%)
Marathon Asset Management LP	4,278,560,656	Services: Consumer	3.34%	FIRE: Banking, Finance, Insurance & RE	(2.56%)
Symphony Asset Management LLC	4,223,705,591	Services: Business	5.61%	High Tech Industries	(6.78%)
Apex Credit Partners LLC	4,102,484,450	Services: Business	2.36%	High Tech Industries	(3.02%)
Generate Advisors LLC	4,009,443,457	Aerospace & Defense	1.36%	Capital Equipment	(1.53%)
Kayne Anderson Capital Advisors, L.P.	3,968,077,468	Telecommunications	2.17%	Media: Broadcasting & Subscription	(2.20%)

# Most Over/Under Designated Industry by Manager

Manager	Par	Max Industry	Max	Min Industry	Min
Allstate Investment Management Company	3,883,937,009	Media: Advertising, Printing & Pub.	1.91%	Services: Business	(2.00%)
Fidelity Management & Research	3,691,101,549	Services: Business	4.23%	Healthcare & Pharmaceuticals	(3.66%)
Investcorp B.S.C.	3,629,465,775	Media: Diversified & Production	2.72%	High Tech Industries	(3.58%)
Shenkman Capital Management Inc.	3,527,814,118	High Tech Industries	4.09%	Telecommunications	(2.54%)
Nassau Corporate Credit LLC	3,475,411,642	Services: Consumer	2.52%	Retail	(2.77%)
New York Life Investment Management LLC	3,407,645,304	Services: Business	5.75%	Healthcare & Pharmaceuticals	(1.95%)
Seix Investment Advisors LLC	3,344,219,185	Services: Business	2.54%	High Tech Industries	(1.95%)
Bardin Hill Loan Management LLC	3,312,696,485	Services: Business	3.08%	Healthcare & Pharmaceuticals	(3.23%)
Greywolf Capital Management LP	3,244,460,304	Services: Business	1.32%	Telecommunications	(1.07%)
Partners Group	3,217,874,506	Retail	2.30%	Healthcare & Pharmaceuticals	(2.99%)
Trimaran Advisors LLC	3,101,409,895	Services: Business	3.48%	Healthcare & Pharmaceuticals	(5.64%)
Eaton Vance Management	3,051,924,910	Aerospace & Defense	1.98%	Capital Equipment	(2.55%)
MS 522 CLO CM LLC	3,022,379,348	Services: Business	3.55%	Capital Equipment	(1.96%)
TCW Asset Management Company	3,020,751,015	Services: Consumer	2.89%	Healthcare & Pharmaceuticals	(6.14%)
MidOcean Credit Fund Management LP	2,958,595,383	Utilities	2.95%	Energy: Oil & Gas	(3.14%)
Hayfin Capital Management LLP	2,807,678,247	Services: Business	3.30%	High Tech Industries	(5.21%)
AIG Global Investment Group	2,751,179,983	Services: Business	2.66%	High Tech Industries	(6.84%)
Steele Creek Investment Management	2,697,727,174	Services: Business	5.90%	High Tech Industries	(4.42%)
CarVal CLO Management, LLC	2,578,054,458	Services: Business	2.92%	Healthcare & Pharmaceuticals	(2.71%)
TCI Capital Management LLC	2,570,066,383	Services: Business	6.21%	High Tech Industries	(4.99%)
Pretium Credit Management LLC	2,491,001,014	Services: Business	2.79%	Media: Broadcasting & Subscription	(2.32%)
Park Avenue Institutional Advisers LLC	2,404,409,570	Services: Business	2.75%	Capital Equipment	(1.66%)
Gulf Stream Asset Management LLC	2,369,686,378	Services: Business	2.13%	Healthcare & Pharmaceuticals	(1.60%)
DoubleLine Capital LP	2,368,380,715	Construction & Building	1.32%	Consumer goods: Durable	(1.39%)
HalseyPoint Asset Management, LLC	2,324,229,741	Media: Advertising, Printing & Pub.	4.45%	Media: Broadcasting & Subscription	(2.67%)
Five Arrows Managers LLP	2,298,566,684	Services: Business	2.70%	High Tech Industries	(3.91%)
Columbia Management Investment Advisors, LLC	2,254,693,789	Services: Business	3.24%	Telecommunications	(1.97%)
Pacific Asset Management	2,183,850,045	Services: Consumer	2.36%	Healthcare & Pharmaceuticals	(2.18%)
Crestline Denali Capital LP	2,126,287,581	Services: Consumer	2.98%	Healthcare & Pharmaceuticals	(4.75%)
Redding Ridge Asset Management LLC	2,095,875,521	Services: Business	5.30%	Healthcare & Pharmaceuticals	(2.24%)

# Most Over/Under Designated Industry by Manager

Manager	Par	Max Industry	Max	Min Industry	Min
Carlson Capital, L.P.	2,044,486,345	Wholesale	2.84%	High Tech Industries	(4.02%)
PPM America Inc.	1,980,869,654	Services: Business	4.37%	High Tech Industries	(3.70%)
Teachers Insurance and Annuity Association of America	1,940,380,613	Services: Business	3.59%	Healthcare & Pharmaceuticals	(5.35%)
Canaras Capital Management, LLC	1,694,998,616	Energy: Electricity	5.39%	Utilities	(4.84%)
Black Diamond Capital Management LLC	1,670,515,959	High Tech Industries	2.70%	Capital Equipment	(2.56%)
CFI Partners, LLC	1,559,735,440	Services: Business	7.56%	High Tech Industries	(4.05%)
Ellington CLO Management LLC	1,487,463,074	Utilities	4.14%	Hotel, Gaming & Leisure	(4.72%)
Par- Four Investment Management LLC	1,441,752,779	Utilities	4.65%	Energy: Oil & Gas	(4.27%)
Nuveen Alternatives Advisors LLC	1,437,874,959	Services: Business	6.07%	High Tech Industries	(7.44%)
Diameter Capital Partners LP	1,402,475,743	Media: Broadcasting & Subscription	1.61%	Media: Advertising, Printing & Pub.	(2.02%)
Medalist Partners Corporate Finance LLC	1,384,607,062	Transportation: Consumer	2.37%	Retail	(2.14%)
Irradiant Partners, LP	1,298,768,979	Services: Consumer	2.06%	Automotive	(1.47%)
Guggenheim Investment Management LLC	1,247,632,369	Services: Business	4.35%	Capital Equipment	(2.71%)
Pacific Investment Management Company	1,220,374,838	High Tech Industries	3.46%	Transportation: Consumer	(1.97%)
40/86 Advisors Inc.	1,206,176,810	Energy: Electricity	1.25%	Healthcare & Pharmaceuticals	(1.52%)
Western Asset Management Company	1,072,899,642	High Tech Industries	4.24%	Consumer goods: Durable	(2.99%)
Fort Washington Investment Advisors, Inc.	1,063,102,261	Services: Business	1.96%	FIRE: Banking, Finance, Insurance & RE	(1.78%)
OFS Capital Management	1,052,056,761	High Tech Industries	3.55%	Healthcare & Pharmaceuticals	(3.05%)
Man Group plc	945,479,318	Services: Business	3.52%	Media: Broadcasting & Subscription	(2.04%)
New Mountain Credit CLO Advisers LLC	926,339,333	Services: Consumer	2.58%	Healthcare & Pharmaceuticals	(7.71%)
Birch Grove Capital LP	903,177,395	Services: Consumer	4.55%	Healthcare & Pharmaceuticals	(5.73%)
Z Capital Credit Partners LLC	759,160,179	Services: Business	3.37%	Capital Equipment	(4.06%)
Franklin Square Holdings, LP	709,102,103	Services: Business	5.56%	Media: Broadcasting & Subscription	(2.39%)
H.I.G. WhiteHorse Capital LLC	704,538,224	Services: Business	6.16%	Hotel, Gaming & Leisure	(2.88%)
Telos Asset Management LLC	694,934,839	Services: Business	7.75%	FIRE: Banking, Finance, Insurance & RE	(4.40%)
Saratoga Investment Corp	671,007,455	Services: Business	3.53%	Healthcare & Pharmaceuticals	(1.89%)
Aquarian Credit Partners LLC	489,078,225	Consumer goods: Durable	4.94%	High Tech Industries	(6.46%)
York CLO Managed Holdings LLC	482,383,498	Construction & Building	1.53%	Healthcare & Pharmaceuticals	(1.16%)
Capital Four CLO Management K/S	416,808,250	Transportation: Consumer	3.24%	Healthcare & Pharmaceuticals	(7.57%)
AllianceBernstein LP	411,688,546	Wholesale	3.37%	Healthcare & Pharmaceuticals	(5.41%)

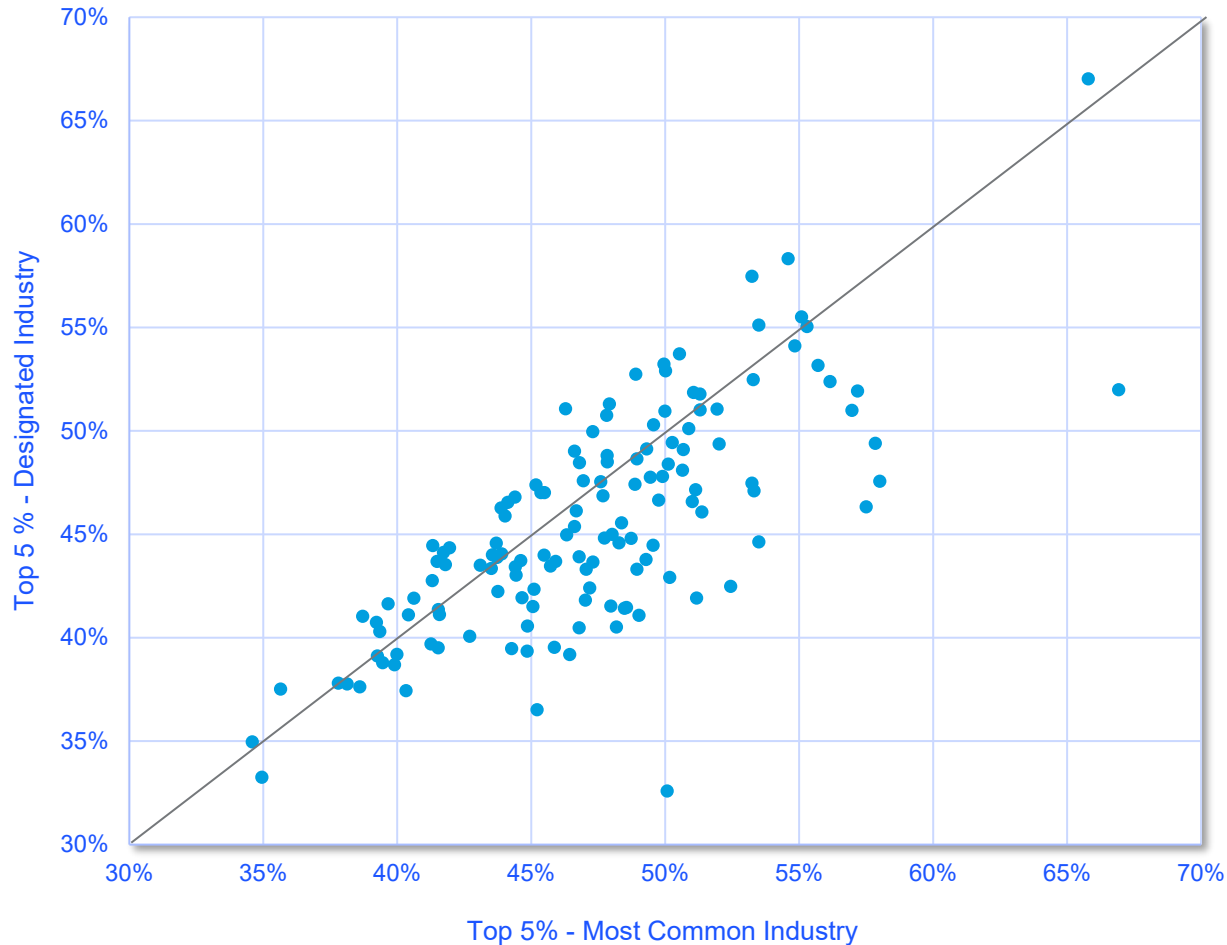
# Most Over/Under Designated Industry by Manager

Manager	Par	Max Industry	Max	Min Industry	Min
Principal Global Investors LLC	407,201,054	Services: Consumer	8.03%	Healthcare & Pharmaceuticals	(7.16%)
Whitebox Capital Management LLC	403,844,146	Services: Consumer	1.88%	Hotel, Gaming & Leisure	(2.96%)
Putnam Advisory Company Inc.	399,601,890	Media: Broadcasting & Subscription	2.25%	FIRE: Banking, Finance, Insurance & RE	(2.59%)
Tikehau Capital Europe Limited	395,985,169	High Tech Industries	3.90%	Construction & Building	(1.51%)
Tall Tree Investment Management LLC	390,597,648	Chemicals, Plastics, & Rubber	2.92%	Capital Equipment	(3.68%)
Cutwater Investor Services	386,133,305	Services: Consumer	3.57%	Capital Equipment	(3.19%)
Covenant Credit Partners, LLC	367,373,308	Media: Broadcasting & Subscription	1.82%	High Tech Industries	(5.02%)
HarbourView Asset Management Corp.	365,776,377	Services: Business	2.06%	FIRE: Banking, Finance, Insurance & RE	(2.36%)
Jocassee Partners LLC	361,096,704	Services: Business	4.37%	High Tech Industries	(3.59%)
Silver Rock Management LLC	360,524,618	Services: Business	5.18%	High Tech Industries	(6.19%)
East West Bancorp Inc.	359,036,533	Utilities	1.87%	Healthcare & Pharmaceuticals	(2.04%)
Centerbridge Credit Funding Advisors LLC	358,189,712	Construction & Building	2.79%	Transportation: Consumer	(3.54%)
Goldman Sachs Asset Management	354,062,726	Utilities	1.68%	FIRE: Banking, Finance, Insurance & RE	(2.29%)
Maranon Capital LP	349,904,645	Beverage, Food & Tobacco	4.77%	Services: Business	(6.50%)
Gallatin Loan Management LLC	311,198,990	Consumer goods: Durable	5.40%	FIRE: Banking, Finance, Insurance & RE	(7.88%)
Sancus Capital Management LP	297,189,868	Utilities	5.94%	Energy: Oil & Gas	(6.06%)
Shinhan Alternative Investment Management Inc.	199,399,330	Energy: Electricity	23.07%	Utilities	(23.29%)
Newfleet Asset Management LLC	171,649,749	Telecommunications	4.72%	Media: Broadcasting & Subscription	(4.38%)
Kramer Van Kirk Credit Strategies LP	169,890,185	Services: Consumer	5.77%	FIRE: Banking, Finance, Insurance & RE	(4.45%)



# Five Largest Industries Most Common vs Designated

Top 5 Industry Percent Comparison



- » Above the line means the total exposure for the five largest industries is greater as designated vs using the most common industry.
- » 65% of managers are below the line.
- » This further supports the assumption that the manager industry designation choices at least partially reduce disclosed industry exposure.
- » The use of the Most Common Industry metric may provide for better analysis.

# Manager: Five Largest Industries Most Common vs Designated

Manager	Cumm % Top 5 Industry (\$)	Top 5 Designated	Difference	Collateral
Aquarian Credit Partners LLC	50.81%	28.84%	(21.97%)	489,078,225
Gallatin Loan Management LLC	50.07%	32.59%	(17.49%)	311,198,990
New Mountain Credit CLO Advisers	66.93%	51.98%	(14.94%)	926,339,333
Golub Capital Management LLC	57.50%	46.32%	(11.18%)	7,257,910,700
Sixth Street Partners	58.01%	47.56%	(10.45%)	7,787,027,024
Birch Grove Capital LP	52.45%	42.48%	(9.97%)	903,177,395
Capital Four CLO Management	51.18%	41.92%	(9.26%)	416,808,250
Carlyle Investment Management	53.50%	44.63%	(8.86%)	22,406,943,442
Sancus Capital Management LP	45.22%	36.52%	(8.71%)	297,189,868
Trinitas Capital Management LLC	57.84%	49.39%	(8.45%)	7,014,419,326
Assured Investment Management	41.33%	44.45%	3.12%	10,487,691,378
HPS Investment Partners, LLC	50.54%	53.72%	3.18%	8,120,357,851
Apollo Credit Management LLC	49.95%	53.22%	3.27%	10,481,496,507
Redding Ridge Asset Management	47.92%	51.30%	3.38%	2,095,875,521
Credit Suisse Asset Management	54.59%	58.33%	3.74%	27,094,364,307
Shenkman Capital Management	48.90%	52.74%	3.83%	3,527,814,118
Eaton Vance Management	53.24%	57.47%	4.23%	3,051,924,910
BlackRock Financial Management	46.28%	51.06%	4.78%	11,608,289,234

- » Table shows managers with greater than 8% under designation or 3% over designation. Only one of the largest managers is in this under designation group.
- » 65% of the managers have a lower top five industry exposure based upon designation as compared to MC Industry.
- » The difference is greater than 10% for five managers with 22% being the largest difference.
- » The extent of under designation is much more limited.

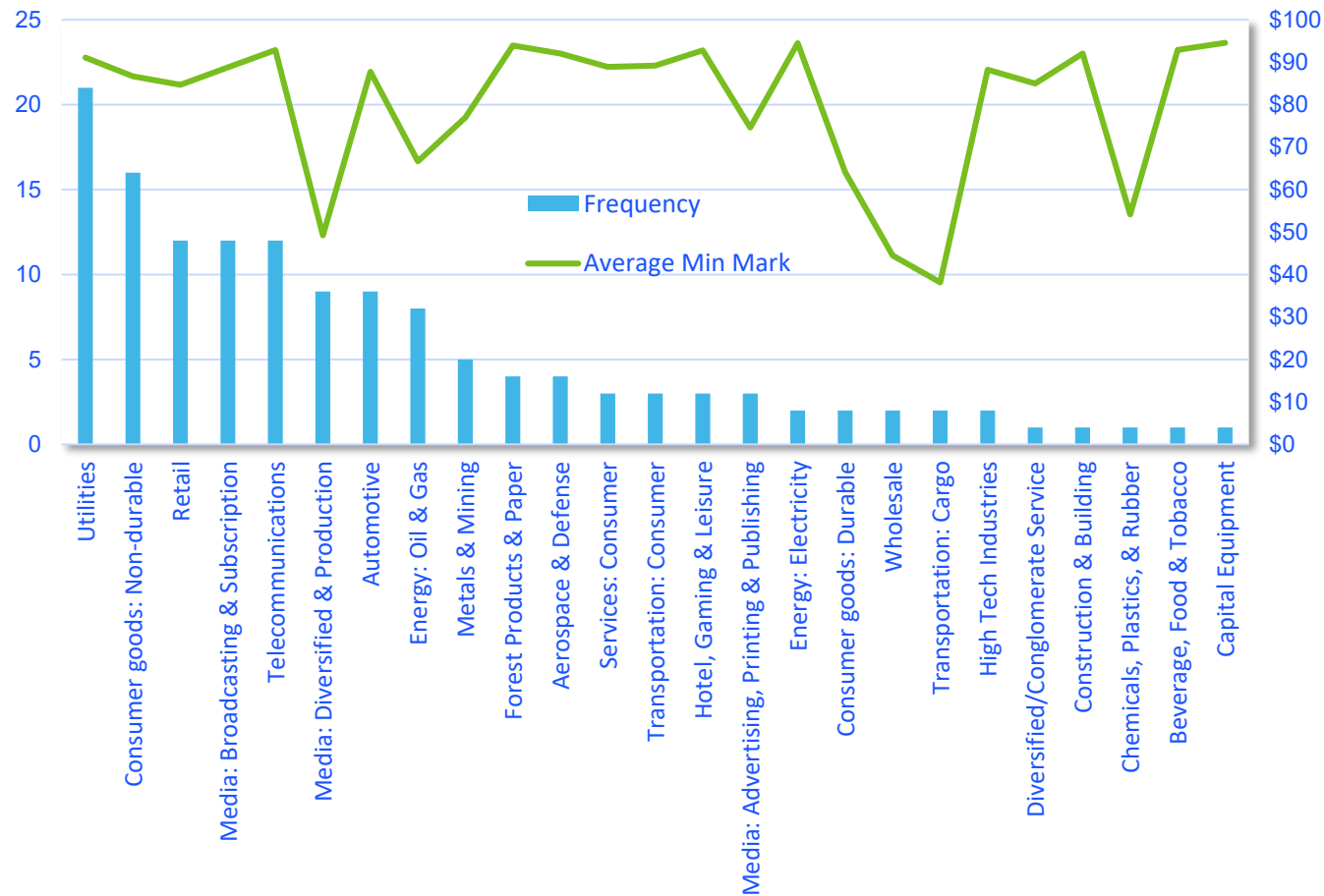


5

Industry & Minimum Marks

# Industry vs Mark

Frequency of Industry With Min Avg Mark by Manager



- » Utilities followed by Consumer Goods: Non-Durable are most frequently the industry with the lowest average mark for managers.
- » However, the lowest actual average marks are in Media: Diversified & Production, Transportation: Cargo and Wholesale
- » Of these three, only Media: Diversified & Production was the industry with the lowest average mark more often than twice.

# Industry with Min Average Mark for Largest Managers

Manager	Industry with Min Average Mark	Min Average Mark
Credit Suisse Asset Management	Energy: Oil & Gas	55.64
CIFC Asset Management LLC	Media: Diversified & Production	80.04
Carlyle Investment Management LLC	Telecommunications	86.26
Octagon Credit Investors, LLC	Retail	86.99
PGIM	Utilities	92.13
Blackstone Liquid Credit Strategies LLC	Automotive	91.65
Ares Management, LLC	Media: Broadcasting & Subscription	90.38
MJX Asset Management LLC	Media: Diversified & Production	26.97
Sound Point Capital Management LP	Media: Diversified & Production	69.71
Neuberger Berman Fixed Income LLC	Utilities	91.39
Anchorage Capital Group LLC	Automotive	75.16
Voya Alternative Asset Management	Energy: Oil & Gas	81.40
KKR Financial Advisors LLC	Metals & Mining	56.76
First Eagle Investment Management	Wholesale	44.50
Bain Capital Credit	Retail	73.33
BlackRock Financial Management	Energy: Oil & Gas	86.36
Benefit Street Partners LLC	Consumer goods: Non-durable	88.94
LCM Asset Management LLC	Telecommunications	88.45
CBAM CLO Management	Utilities	88.69
CVC Credit Partners LLC	Media: Diversified & Production	73.44

- » Wholesale has the lowest minimum average mark, but a small amount of collateral.
- » Only Media: Diversified & Production and Utilities appear more than twice.

6

Conclusion

# Conclusion

- » Healthcare & Pharmaceuticals, High Tech and FIRE: Banking, Finance, Insurance & Real Estate were the three largest industries on both March 1, 2021 and 2022. Holdings of the top two were greater than 12% each (1.5% more than reported in monthly reports).
- » While the relative holdings for some did change, the rankings had little variation over the year. High Tech had the largest increase in percentage of collateral and Telecommunication the largest decrease.
- » On average, managers choose to list an issuer as one of the two largest industries (Healthcare & Pharmaceuticals or High Tech) less frequently than is expected if everyone used the industry that most managers choose.
- » This same extent of under reporting does not occur with the smaller industries.

# Conclusion – Industry vs Performance

- » Analysis was also completed to determine if there was a difference in industry holdings for the best and worst performing CLOs as it relates to two key indicators: Eq NAV and Junior OC cushion. Equity return was not focused on as its results are more dependent upon where in its life the CLO currently is.
- » Based upon such analysis, the 4<sup>th</sup> quartile CLOs based upon these metrics held significantly less Healthcare and High Tech collateral and more Utilities and Telecommunications. Again, MC industry was used so manager designation did not affect the results.

# Conclusion

- » Athena Healthcare was designated multiple industries by seven managers depending upon the CLO that held the collateral. This is contrary to what is expected.
- » Antidotal evidence suggests managers may be under designating issuers to reduce the industry exposure of the largest industries for optics or to increase the diversity score. The choice of which issuer to under designate varies across the CLO universe.
- » The chart depicting the total exposure of the five largest industries using both manager designation and MC Industry further supports this suggestion. Nevertheless, going beyond antidotal evidence is challenging.

A

Assumptions and Criteria



# Assumptions and Criteria

- » Most Common Industry is the Moody's industry most managers choose for each issuer. It is based upon CLO monthly reports and can change as new reports are produced.
- » Data is as of March 1, 2022 unless otherwise indicated.
- » Data is from CLOs with a monthly report and reinvestment end date on or after 12-1-21.
- » Ignores Issuers/Industries with less than 1mm of par.
- » Managers without Most Common industries or less than 50mm of par were removed.
- » 139 managers in the analysis. Based upon the available data, certain tables excluded certain managers.

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