S&P Global

Ratings

U.S. BSL CLO And Leveraged Finance Quarterly:

Credit Fundamentals Mostly Sunny, But Some Clouds Linger Q1 2025 Stephen Anderberg

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Feb. 13, 2025

This report does not constitute a rating action



First-Quarter 2025 Update | Leveraged Finance

- A Resilient U.S. Economy: Supportive financing conditions and continued (but slowing) economic growth are expected to provide a solid foundation for the leveraged finance market in 2025. Under our base case, we expect real GDP growth of 2% annually over the next two years, CPI to fall to about 2.4% by year-end 2026, and risk-free rates to be in the 4% area in 2025.
- Improving Credit Trends: Positive rating momentum is anticipated to continue, with modest EBITDA growth and lower funding costs further strengthening credit fundamentals. Furthermore, we have seen issuer rating outlooks improve, with the proportion of issuers assigned a negative outlook declining to 19% from about 23% in early 2024. Speculative-grade default rates are expected to decline in 2025 after peaking at 5.1% (preliminary estimate) at the end of 2024 (see slide 19).
- **Policy Uncertainty Risks:** Uncertainty around policy measures, such as potential tariffs and trade disputes, may reignite inflationary pressures. These factors could sustain elevated interest rates, intensifying stress on interest coverage ratios and leading to persistent cash flow deficits for issuers in the 'B-' and 'CCC'/'CC' rating categories.
- Declining Recovery Expectations: More top-heavy debt structures have eroded 1L recovery expectations, as shown by the decline in our recovery ratings (which estimate future recovery rates on rated debt in a default scenario) on first-lien debt to the mid-to-low-60% area over the past eight years, compared to long-term average actual recoveries of 75%-80%. Further, aggressive loan liability management transactions (LMTs) have proliferated and often create winners and losers among 1L lenders in the same loan (see slide 24).
- **Private Credit Growth:** The speed and tailored nature of private credit solutions are expected to remain a compelling alternative for many challenged public issuers. Private credit markets saw significant expansion, with a 33% increase in S&P Global Ratings' private credit-estimated middle-market issuers, reaching 3,200 and \$750 billion in total reported debt (see "Private Credit And Middle-Market CLO Quarterly: Waiting For The Sun (Q1 2025)," published Jan. 24, 2025.

First-Quarter 2025 Update | Broadly Syndicated Loan CLOs

- Another Record On The Horizon? U.S. collateralized loan obligation (CLO) issuance in 2024 set records, and we expect another busy year in 2025 amidst robust investor demand for floating-rate assets in an uncertain interest rate environment. Including both broadly syndicated loan (BSL) CLOs and middle-market CLOs, we forecast \$205 billion of U.S. CLO new issuance during the year, modestly above the 2024 total of \$201.95 billion (see slide 29).
- Gross Issuance Vs. Net Issuance: It's worth noting that the record issuance in 2024 didn't grow the overall size of the CLO market by much. Heavy CLO new issuance was paired up with a large volume of redemptions of existing CLOs and amortization of vintage senior tranche balances. These offset new issuance volume, and net CLO issuance (and market growth) was very limited. One thing we'll be keeping an eye on is whether mergers and acquisitions (M&As) and leveraged buyouts (LBOs) increase, potentially leading to new loan supply that could grow the CLO market.
- CLO Resets And Refinancings: CLO tranche credit spreads have tightened significantly over the past year. At the start of 2024, a 'AAA' tranche from a benchmark BSL CLO with a five-year reinvestment period and two-year non-call period was pricing around SOFR + 160; by the end of 2024, that had dropped to SOFR + 130, and January 2025 has seen 'AAA' notes price inside of SOFR + 115. Given this, we expect a record volume of CLO resets and refinancings this year, at \$353 billion, compared with \$306.94 billion in 2024.
- Improving Credit Trends: Positive momentum for speculative-grade corporate ratings should be good news for BSL CLO transactions. BSL CLO 'CCC' baskets have peaked and are trending downwards, partly because fewer obligors are seeing their ratings lowered into the 'CCC' range, but also because some issuers are seeing their ratings lowered to 'D' or 'SD', taking them out of the 'CCC' basket. Anecdotally, we're hearing that investors are pushing CLO managers to maintain cleaner, lower spread portfolios, while investors who want more spread can look to middle-market CLOs.
- CLO Ratings Outlook: We have a stable outlook for CLO ratings performance in 2025 based on strengthening credit fundamentals of corporate loan issuers and a relatively benign outlook for loan defaults (with the caveat that we could see an increase in 'SD's as stressed issuers engage in LMTs). Most CLO rating downgrades that do happen should be on junior tranches of pre-COVID-19 CLOs. We're keeping an eye on declining weighted average recovery rate (WARR) and weighted average spread (WAS) metrics (see slide 31), which could put pressure on some BSL CLO ratings.

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Credit Themes | What We're Watching As We Start 2025

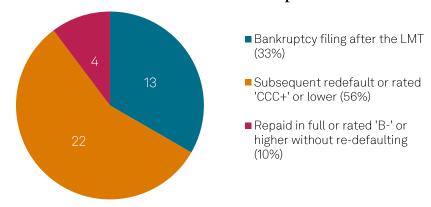
1. Thirteen percent of debt from companies with I/C deficits

Percent of total reported debt by issuer's reported EBITDA interest coverage (%)*

Rating	<u><</u> 0.5x	>0.5x to 1x	>1x to 1.5x	>1.5x to 2x	>2x to 4x	>4x	Total
В	0	0	0	1	3	14	18
B-	0	0	0	0	5	8	13
CCC+	0	0	0	0	7	4	12
CCC	0	0	1	2	6	2	12
CCC-	1	1	4	4	4	1	15
D	1	4	7	4	2	0	18
CCC/CC/D	2	3	2	3	2	1	13
Total	5	8	14	14	29	30	100

^{*}Reflects information from about 1,200 U.S. and Canadian speculative grade issuers as of third-quarter 2024. I/C-Interest coverage. Source: S&P Global Ratings.

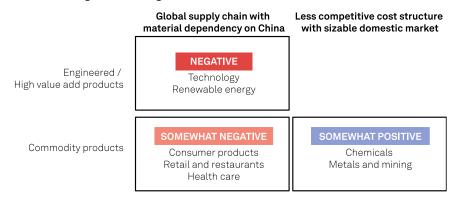
3. Loan LMTs have not fixed debt structure problems



LMT--Liability management transaction. Source: S&P Global Ratings.

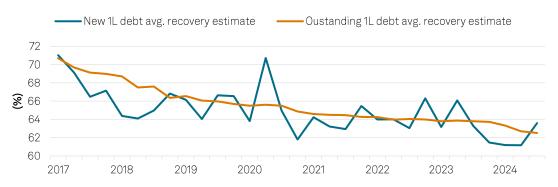
S&P GlobalRatings

2. Sectors exposed to potential tariffs



Source: S&P Global Ratings, "Credit Conditions North America Q1 2025: Policy Shifts, Rising Tensions," Dec. 12th, 2024.

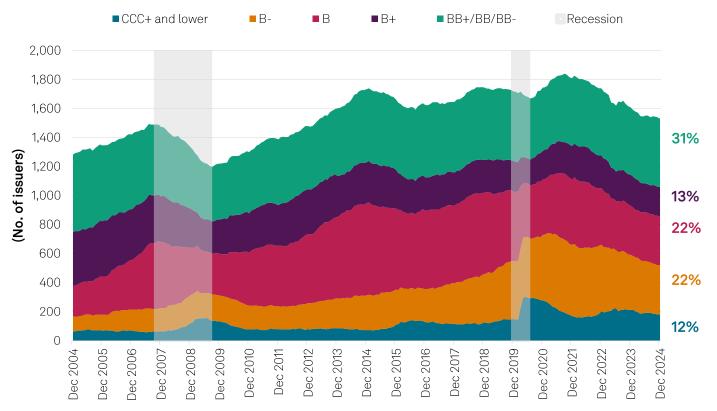
4. The decline in first-lien recoveries



Note: Starting from third-quarter 2024, we excluded new issues resulting from LMTs or general debt restructuring, as they typically represent exchanged debt rather than truly 'new' paper for syndication, which can introduce noise to our new issue recovery calculation. Source: S&P Global Ratings.

Rating Trends | Issuers Rated 'B-' And Lower Have Fallen From the June 2020 Peak Of 43% To 34%; Issuer Counts Have Plateaued

U.S. and Canada SG ratings distribution by issuer count (as of Dec. 2024*)



^{*}Data as a % of SG Ratings Dec. 31, 2024. SG--Speculative grade. Source: S&P Global Ratings & CreditPro.

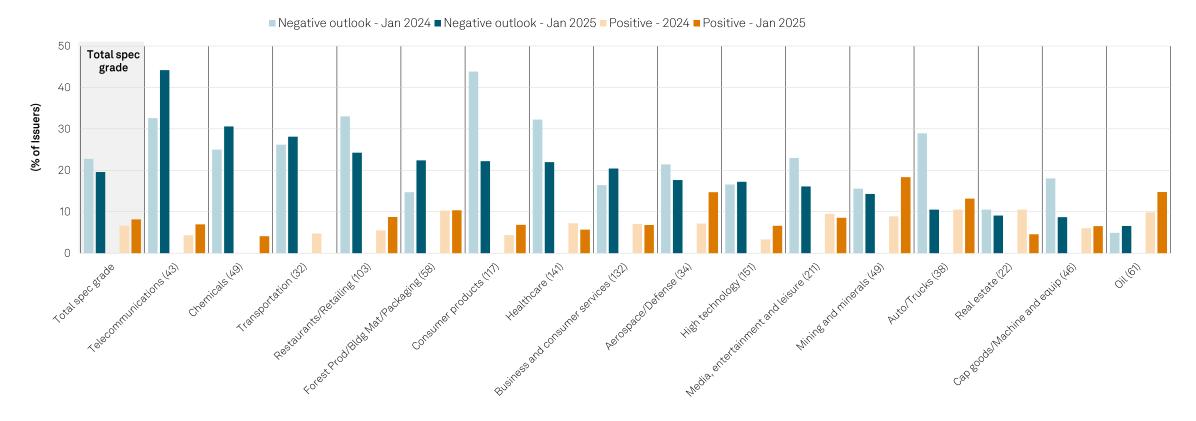
- About 22% of our speculative-grade issuer ratings (by issuer count) are rated 'B-'. The proportion declined 500 basis points (bps) from its 28% peak in mid-2021.
- The speculative-grade issuer population fell about 4.8% for the last 12 months ending Dec. 31, 2024. Our rating distribution showed a modest widening of the tails ('BB' and 'CCC' categories).
- 'CCC' category issuers account for 11.9% of our portfolio, which is high but below the COVID-19 peak of 18% and just below the global financial crisis (GFC) peak of 12.8%.



Rating Trends | Speculative-Grade Negative Rating Bias Has Declined Modestly Since Early 2024; Positive Bias Up Slightly, But Both Vary Widely By Sector

Speculative-grade rating outlook by sector*

U.S. and Canada (as of Jan. 12, 2025)



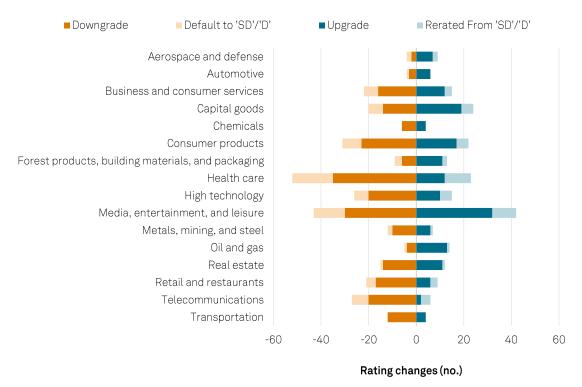
^{*}Includes issuers with both positive and negative rating outlooks and issuers placed on CreditWatch positive and negative. Source: S&P Global Ratings U.S. and Canada ratings.



Rating Trends | Negative Bias Is Concentrated At Lower Ratings; About 75% Of 'CCC' Category Issuers Have A Negative Ratings Outlook

Speculative-grade ratings changes by sector*

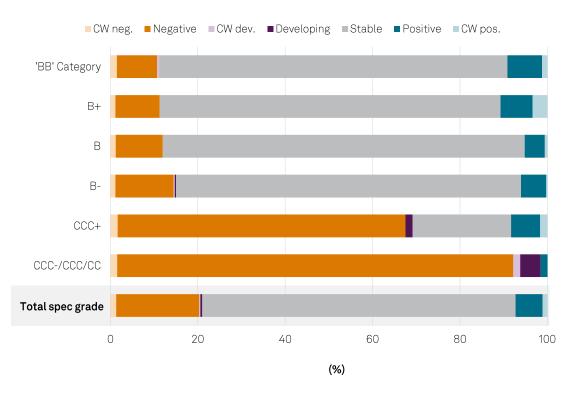
U.S. and Canadian nonfinancial corporates



^{*}Excludes utilities, financial, and insurance services. FY--Fiscal year. Source: S&P Global Ratings U.S. and Canada ratings

Speculative-grade negative ratings bias*

U.S. and Canadian nonfinancial corporates



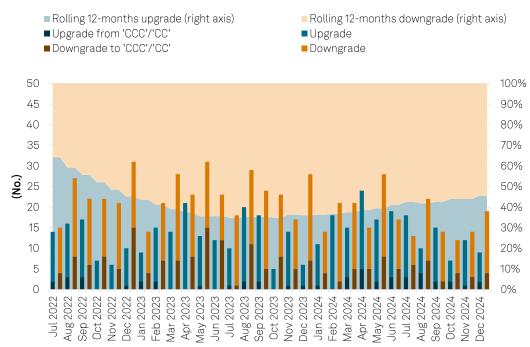
^{*}Ratings as of Jan. 12, 2025. Source: S&P Global Ratings U.S. and Canada ratings.



Rating Trends | Downgrades Outpace Upgrades In Fourth Quarter; Downgrade Volumes Concentrated Within 'B-' And Lower Issuers

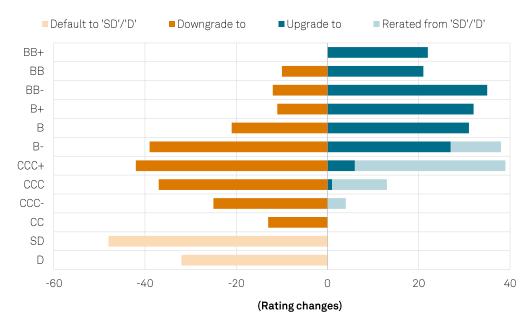
Credit statistics for entities downgraded to--or upgraded from--the 'CCC' category are starkly different than those where the issuer credit rating was unchanged.

Speculative-grade upgrades and downgrades



Note: U.S. and Canada corporate entities. Issuers rerated from 'SD'/'D' and defaulted to 'SD'/'D' are excluded. Source: S&P Global Ratings U.S. and Canada ratings.

Speculative-grade issuer credit rating changes by rating: U.S. and Canada (FY 2024)



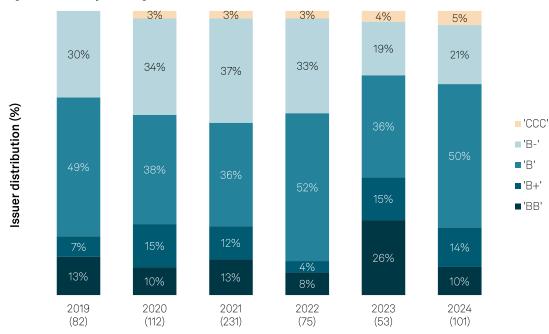
Note: Downgrade and upgrade ratings actions are 'to' the current rating. We do not include ratings that were downgraded from IG to SG and vice versa. (e.g., fallen angels and from SG to IG). IG--Investment grade. SG--Speculative grade. LTM--Last 12 months. FY--Fiscal year. Source: S&P Global Ratings U.S. and Canada ratings.



Rating Trends | New Issuer Counts Jump In 2024; Skew To 'B' And Higher

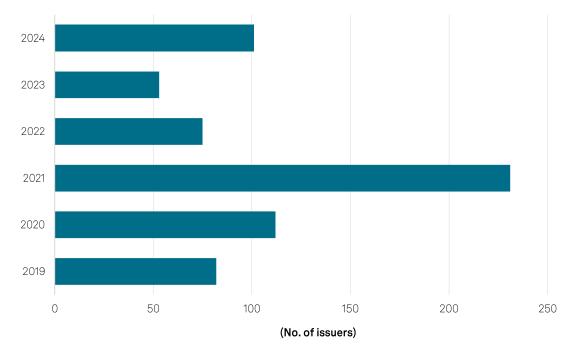
- 'B-' new issuers remain below half of 2021 levels as new issuer ratings shift towards 'B'.
- S&P Global Ratings sectors with the highest new issuer count were capital goods; high technology; and media, entertainment, and leisure

U.S. and Canada distribution of new SG issuers by credit quality



SG--Speculative grade. YTD--Year to date. Source: S&P Global Ratings.

U.S. and Canada new SG issuers counts by year



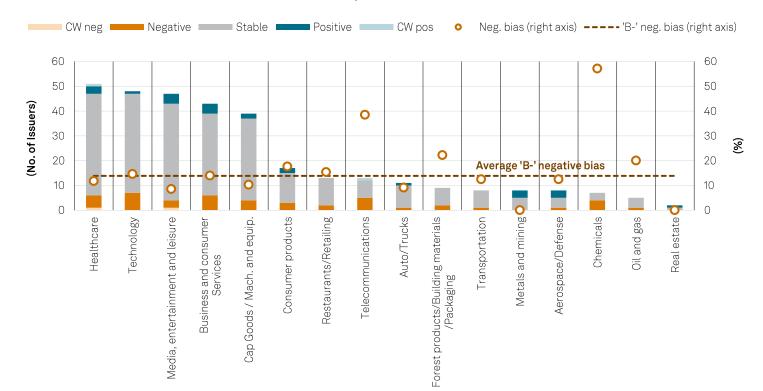
SG--Speculative grade. Source: S&P Global Ratings.



'B-' Credit Risk | Negative Rating Bias For 'B-' Issuers Fell To 14% In January 2025 From About 22% In January 2024, But Varies Widely By Sector

Ratings bias of companies rated 'B-' by sector*

U.S. and Canadian nonfinancial corporates

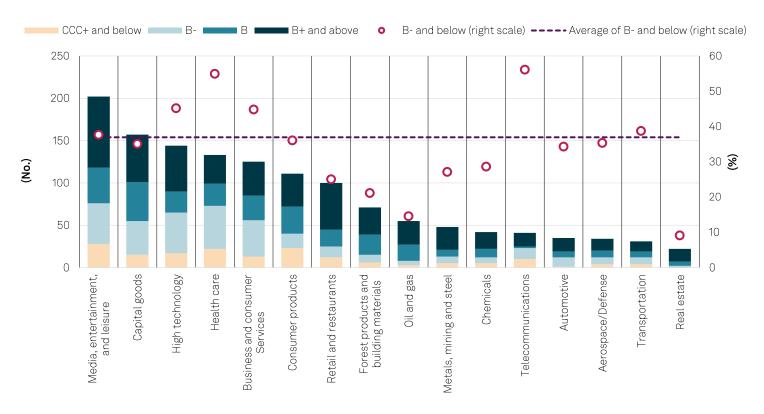


- On a speculative-grade corporate rating, a negative outlook is intended to signal a one-in-three chance of a downgrade within the next 12 months.
- Chemicals is the sector with the highest percentage of issuers with a negative rating bias, but healthcare has the highest total number of issuers with a negative bias.

^{*}As of Jan. 12, 2025. Source: S&P Global Ratings Credit Research & Insights.

'B-' Credit Risk | 'B-' Issuer Counts Elevated In Sectors With High Sponsor Concentrations

U.S. and Canada speculative-grade issuer credit rating distribution by sector*



- The sectors with the most speculativegrade companies tend to have high proportions of ratings of 'B' and lower, since this is where post-GFC ratings growth was concentrated.
- The sectors with high and above average concentrations of firms rated 'B-' and lower are healthcare, high technology, and business and consumer services, which have high financial sponsor ownership.

^{*}As of Jan. 12, 2025. U.S. and Canada corporate ratings. Source: S&P Global Ratings.

Scenario Analysis | Interest Rate Reductions And Earnings Growth Could Support A Solid Improvement Of Interest Coverage Ratios

Percentage of 'B-' issuers with reported EBITDA interest coverage less than 1x

					> 500 bps improvement	< 500bps Improvement	Weakening
			Reported	EBITDA Growth	Or Decline		
	+15%	+10%	+5%	0%	-5%	-10%	-15%
Sample size: 302	(17.7% median margin)	(16.9%)	(16.1%)	(15.4%)	(14.6%)	(13.8%)	(13.1%)
8.3%	14%	14%	15%	17%	20%	23%	27%
8.8%	14%	16%	18%	20%	23%	26%	29%
9.3%	17%	18%	20%	23%	26%	29%	31%
9.8%	18%	21%	23%	26%	29%	31%	36%
10.3% (Annualized Q3'24)**	21%	22%	25%	29%**	30%	35%	40%
10.8%	22%	25%	28%	30%	35%	39%	44%

^{*}The hypothetical analysis using quarterly <u>annualized</u> interest for issuers reporting in third quarter 2024 and measuring the impact of falling interest costs and various EBITDA growth and decline scenarios. **The annualized rate does not reflect about 100bps decline in the Fed Funds rate in late 2024

- When annualizing reported interest expense in third-quarter 2024, the percentage of issuers that fail to have reported EBITDA interest coverage > 1x is about 29% of our portfolio.
- Under a scenario where annualized debt costs fall 50 bps and EBITDA remains unchanged, we could see the number of 'B-' issuers with less than 1x interest coverage fall to 26%.
- For 'B-' issuers, EBITDA growth has approximately the same impact as interest rate cuts. For example, a 10% increase in EBITDA would have about the same impact as a 10% decline in capital costs.



Credit Metrics | Reported EBITDA Interest Coverage Should Trough In The 2.3x-2.4x Range By Fourth-Quarter-2024

(Rolling 12-month periods)

Speculative-grade reported interest coverage (U.S. and Canada)

Issuer credit rating*	Entity count (no.)	Q3 2022 (x)	Q4 2022 (x)	Q1 2023 (x)	Q2 2023 (x)	Q3 2023 (x)	Q4 2023 (x)	Q1 2024 (x)	Q2 2024 (x)	Q3 2024 (x)
BB+	110	8.7	7.9	7.2	6.4	6.2	6.3	6.4	6.2	6.0
ВВ	109	7.9	6.8	6.1	5.8	5.8	5.6	5.7	5.8	5.8
BB-	119	5.6	5.3	4.7	4.4	4.3	4.2	3.9	3.7	3.6
B+	124	4.0	4.0	3.7	3.5	3.3	3.0	2.8	2.9	2.9
В	181	3.3	3.3	2.9	2.5	2.4	2.3	2.1	2.1	2.1
B-	223	1.7	1.6	1.5	1.4	1.3	1.3	1.3	1.3	1.3
CCC+	80	1.5	1.4	1.3	1.1	1.1	1.0	1.0	0.9	0.9
CCC	32	1.8	1.6	1.2	1.0	1.0	0.9	0.9	0.8	0.8
Total	986	3.6	3.3	3.1	2.8	2.6	2.4	2.4	2.4	2.3

^{*}Ratings as of Dec. 27, 2024. Source: S&P Global Ratings.



Credit Metrics | Reported FOCF-To-Debt Trends Down For 'B-' And Lower-Rated Issuers

(Rolling 12-month periods)

Speculative-grade reported free operating cash flow to debt (%) (U.S. and Canada)

Issuer credit rating*	Entity count (no.)	Q3 2022 (%)	Q4 2022 (%)	Q1 2023 (%)	Q2 2023 (%)	Q3 2023 (%)	Q4 2023 (%)	Q1 2024 (%)	Q2 2024 (%)	Q3 2024 (%)
BB+	110	12.9	12.0	11.3	12.1	13.2	13.2	14.4	15.8	17.5
BB	109	8.6	8.9	9.1	12.1	13.8	16.9	16.7	17.2	15.9
BB-	119	8.3	8.9	9.6	10.7	12.5	12.5	12.2	9.8	10.5
B+	124	4.4	5.8	7.3	8.4	9.2	10.7	10.1	9.5	7.7
В	181	2.0	3.1	3.7	4.0	4.5	4.8	4.2	3.9	2.8
B-	223	-1.6	-0.8	-0.8	-0.4	-0.1	0.0	-0.1	-0.1	-0.5
CCC+	80	-3.9	-3.3	-3.1	-3.2	-2.4	-1.7	-2.2	-3.2	-3.3
CCC	32	-6.2	-6.3	-4.6	-3.9	-1.9	-2.1	-1.1	-1.3	-0.2
Total	986	2.4	3.2	3.5	4.4	4.7	5.1	4.6	4.5	4.4

^{*}Ratings as of Dec. 27, 2024. Source: S&P Global Ratings.



Credit Metrics | Reported Leverage Improvements Have Moderated In Recent Quarters; Leverage Remains High for 'B-' And Lower Issuers

Reported leverage (rolling 12-month periods) Breakdown by rating

Debt/EBITDA (x)

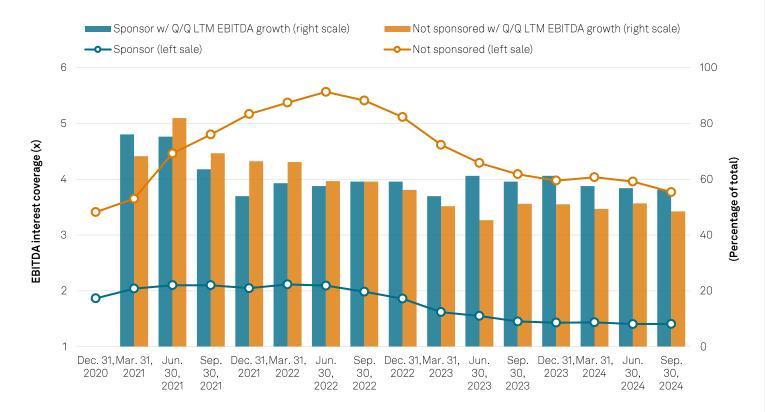
Issuer credit rating*	Entity count (no.)	2020	2021	2022 Q1 LTM	2022 Q2 LTM	2022 Q3 LTM	2022	2023 Q1 LTM	2023 Q2 LTM	2023 Q3 LTM	2023	2024 Q1 LTM	2024 Q2 LTM	2024 Q3 LTM
BB+	114	3.4	3.1	2.9	2.9	2.8	2.9	2.9	2.9	2.8	2.8	2.8	2.9	3.0
ВВ	115	3.6	2.8	2.8	2.9	3.2	3.3	3.1	3.1	3.0	3.0	3.0	3.0	3.1
BB-	126	4.9	3.5	3.7	3.7	3.6	3.7	3.7	3.8	3.6	3.6	3.7	3.8	3.8
B+	132	5.3	4.6	4.8	4.6	4.4	4.2	4.2	4.1	4.1	4.1	4.2	4.1	4.2
В	185	6.3	5.5	5.2	4.8	4.9	4.6	4.6	4.9	4.9	5.0	5.2	5.2	5.4
B-	237	7.9	9.3	9.2	9.0	8.9	9.0	8.7	8.5	8.5	8.3	8.0	7.7	7.7
CCC+	84	7.9	9.8	10.1	10.7	10.6	10.3	10.1	10.1	10.2	10.8	10.5	11.0	12.1
CCC	29	8.9	6.0	7.1	8.3	7.5	8.8	10.0	10.1	9.1	10.3	11.7	12.1	11.3
Total	1,031	5.8	5.4	5.4	5.3	5.2	5.2	5.0	5.1	5.1	5.0	5.1	5.1	5.2

^{*}Rating as of Dec. 27, 2024. LTM--Last 12 months. Source: S&P Global Ratings,



PE Sponsors | Sponsor-Backed Companies Often Demonstrate Higher Risk, But Higher EBITDA Growth

Median-reported EBITDA interest coverage and EBITDA growth



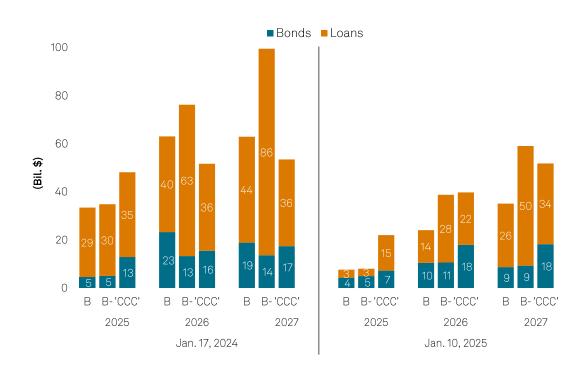
Q/Q--Quarter over quarter. LTM--Last 12 months. Source: S&P Global Ratings.

- Sponsor-backed companies have outperformed non-sponsored ones in profit growth since 2023, helping to narrow the leverage gap.
- However, not all strong earnings momentum translated into higher free operating cash flow (FOCF), with twice the proportion of sponsor-owned companies reporting negative FOCF than nonsponsored ones in the 12 months ended Sept. 30, 2024.
- In the past 12 months, downgrades have outnumbered upgrades for PE-owned companies but not by a large margin. In contrast, rating trends have turned generally positive for companies not backed by sponsors for the same period.



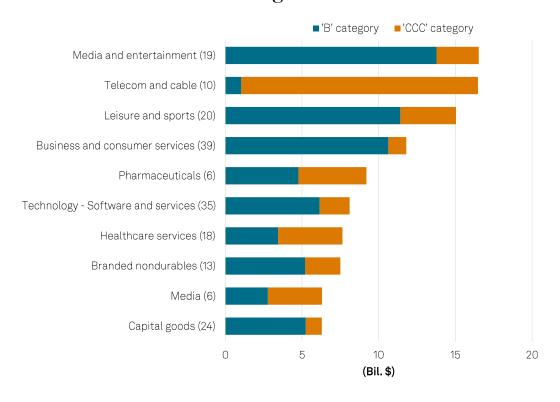
Maturity Wall | 'CCC' Refinancing Needs Remain High, With A Focus On Telecom, Media, And Business And Consumer Services

Debt maturities as of Jan. 17, 2024 and Jan. 10, 2025



Note: 'CCC' category--Includes all 'CCC' notches as well as 'CC'. Includes U.S. nonfinancial corporate issuers' speculative-grade bonds and loans. Excludes revolving credit facilities. Source: IHS Markit & Refinativ Data.

'B+' and lower debt maturing in 2025 and 2026*



^{*}Data as of Jan. 10, 2025. 'CCC' category--Includes 'CC'. Includes U.S. nonfinancial corporate issuers' speculative-grade bonds and loans. Excludes revolving credit facilities. Source: IHS Markit & Refinativ Data.

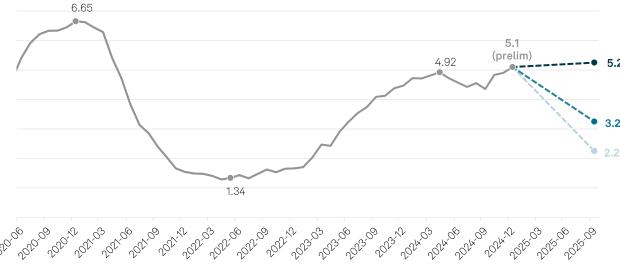


Defaults | Default Rates Tick Up In Late 2024, But Declines Expected In 2025

- Our mid-November base-case speculative-grade default forecast called for a decline in the default rate to 3.25% by Sept. 30, 2025 (from 4.4% at Sept. 30, 2024) driven by: completed and expected rate reductions; tight spreads; modest near-term maturities; lower distressed ratios; a shrinking population of companies rated B- and lower; and ongoing economic resilience.
- Subsequently, default rates ticked up in the fourth quarter (5.1% at year end), market views on interest rates have worsened, and concerns about tariff and immigration risk remain. Still, many of the positive drivers behind our current forecast remain relevant.
- The proportion of 'CCC'/'C' ratings is historically large, with many firms already seeing negative cash flow and large maturities due in 2025. This signals a high level of sensitivity to a drop in growth or a further rise in interest rates or operational disruptions, which could push the default rate towards our pessimistic scenario of 5.25%.
- Consumer-facing sectors such as consumer products and media and entertainment, along with health care, are likely to continue leading among defaults as these remain sectors with high leverage and strained cash flow.

3.25%

September 2025 baseline U.S. speculative corporate default rate forecast*



^{*}Default forecast from Nov. 15, 2024. Sources: S&P Global Ratings Credit Research & Insights and S&P Global Market Intelligence's Credit Pro©.

Pessimistic scenario: Since the results of the U.S. election, we feel there's an increased likelihood of more tariffs and changes to immigration policy, with the potential for subsequent inflation and a possible slower pace of rate cuts.

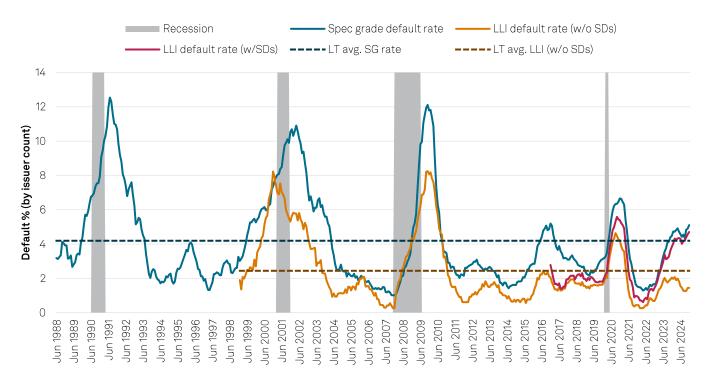
Base scenario: We expect growth to slow but remain strong enough to sustain a soft-landing, with more rate cuts ahead. Market rates have been falling, albeit more slowly than they rose, but spreads remain close to the all-time lows of earlier this year. We feel this backdrop implies the default rate will continue to decline.

Optimistic scenario: Interest rates would fall faster than anticipated. This would need to offset the slowdown in growth that we expected in the coming quarters--although growth could also always surprise to the upside, as it has in the last year or more.



Defaults | Defaults With 'SD' Rating Actions Ticked Up At Year-End 2024 To New Post-COVID-19 Highs, But Remain Below Prior Peaks

U.S. speculative-grade default rates (trailing 12-month basis through YE 2024)*



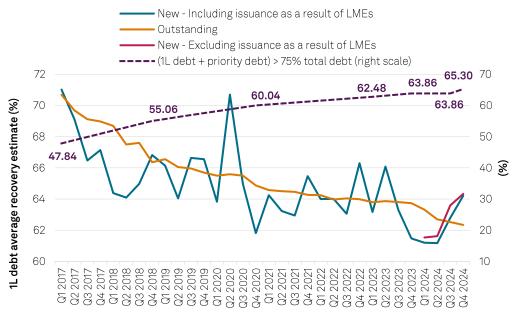
*All default measures are shown on an issuer-count basis through Dec. 31, 2024 (although the speculative-grade default rate is preliminary for December). The LLI default rate is for the Morningstar/LSTA Leveraged Loan Index and is shown without selective defaults (SDs), consistent with the default definition of the index, as well as with SDs as determined by S&P Global Ratings' rating actions. YE--Year end. SG--Speculative grade. Sources: S&P Global Ratings and Leveraged Commentary & Data. z

- Default rates ticked up at year-end 2024 under three different metrics (all on an issuer count basis), although default levels remain well below prior peaks.
- In particular, default metrics that include selective default ('SD') rating actions are elevated as distressed exchanges continue to outpace traditional defaults.
- The gap between Morningstar/ LSTA LL Index default rates with and without SD actions has been notably wider since 2020 and was at a peak of 325 bps at year-end 2024 (4.70% vs. 1.45%).
- Since July 2020, the LL Index default rate with SDs has generally been closer to S&P Global Ratings' overall speculative-grade default rate (which also includes SDs) than to the traditional LL Index default rate.



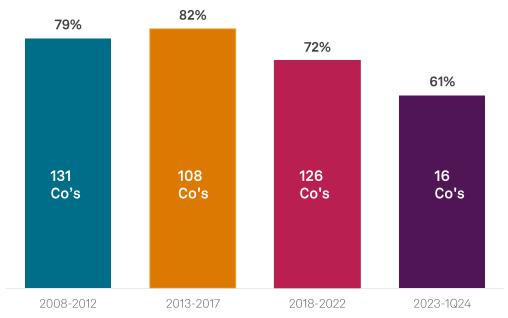
Recoveries | Future 1L Recovery Expectations And Actual 1L Recovery Rate Estimates Have Declined As Debt Structures Have Become More Top-Heavy

Expected recovery on newly issued and outstanding 1L debt based on S&P Global Ratings' recovery ratings (U.S. and Canada)*



*Data through Dec. 31, 2024, based on the rounded point-estimates included in our recovery ratings for rated nonfinancial corporate entities in the U.S. and Canada. The data on debt structure composition is from a sample that covers large portion of the relevant rated issuers as of 1QE 2017, YE 2018, YE 2020, YE 2022, and YE 2023 (with smoothed transitions between these dates). The YE 2023 sample covers roughly 80% of the rated SG issuers in the U.S. and Canada. YE--Year end. SG--Speculative grade. Source: S&P Global Ratings.

Estimated actual 1L recovery rates (% par) after bankruptcy (nominal basis, entity counts/period in parentheses)*

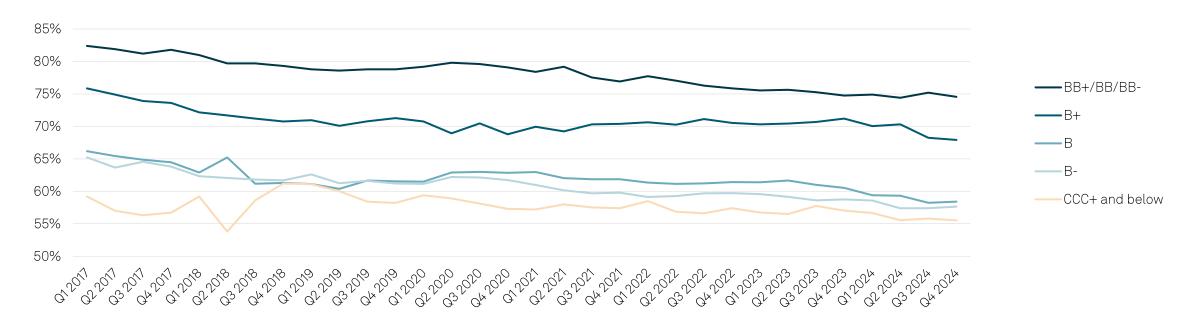


*The actual first-lien recovery estimates are on an ultimate (at the end of the bankruptcy restructuring period) and nominal basis. These rates represents estimated recoveries from bankruptcy documents. Sources: S&P Global Ratings; "Are Prospects For Global Debt Recoveries Bleak," published March 14, 2024, and "Actual 1L Debt Recoveries Trend Down; Significant Drops In Some Sectors," published Dec. 11, 2024.

Recoveries | First-Lien Recovery Expectations Vary By Rating Level

- Average recovery expectations for first-lien debt are notably lower for companies rated 'B-' and lower.
- Higher-rated issuers, which tend to be less levered and have larger junior debt cushions, also tend to have higher recovery expectations.
- Average recovery expectations have generally drifted down since 2017.
- These recovery expectations do not account for "event risk" related to future aggressive-out-of-court restructurings or liability management transactions.

Average recovery estimate of first-lien debt: U.S. and Canada*

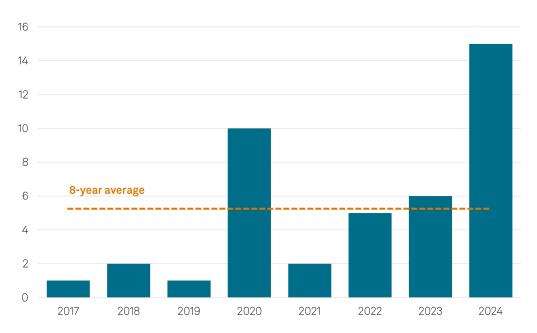


^{*}Data through Dec. 31, 2024. Based on the rounded point-estimates included in our recovery ratings for rated nonfinancial corporate entities in the U.S. and Canada. Source: S&P Global Ratings.



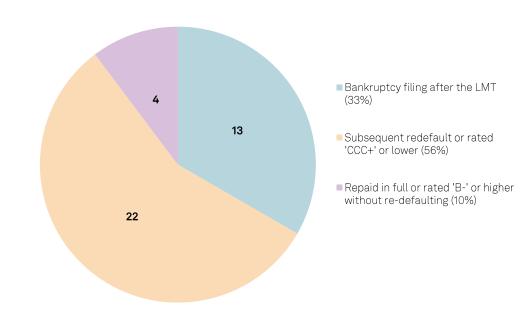
Loan LMTs | Aggressive Loan Restructurings Accumulate, Hit A Record Number In 2024, And Generally Don't Resolve The Financial Problems That Caused Them

Loan LMTs that subordinate existing lenders become more common; 2024 was a record (count/year)



Data covers aggressive out-of-court loan restructurings (LMTs) we've tracked where all lenders were disadvantaged by new third-party debt or where not all lenders were offered pro rata terms on existing 1L debt. Excludes cases note/bond restructurings. Source: S&P Global Ratings and company reports.

LMTs generally don't resolve the problems that caused them (2017-2024)



Data covers aggressive out-of-court loan restructurings (LMTs) we've tracked where all lenders were disadvantaged by new third-party debt or where not all lenders were offered pro rata terms on existing 1L debt. Excludes cases note/bond restructurings. Source: S&P Global Ratings and company reports.



Loan LMTs | Aggressive Loan Restructurings Create Winners/Losers From Equal Lenders And Can Significantly Impair Recoveries For Disadvantaged Lenders

Comparison of expected recovery impairment for subordinated/non-participating lenders from select loan restructurings (2017 – 2024)

1 J.Crew 7/2017 40% 15% 2 Murray Energy 6/2018 65% 0% 3 PetSmart 6/2018 60% 45%	-65% -15% 0%
2 Murray Energy 6/2018 65% 0% 3 PetSmart 6/2018 60% 45%	-25% -65% -15% 0% -15%
3 PetSmart 6/2018 60% 45%	-15% 0%
	0%
0.0040	
4 Neiman Marcus 9/2019 55% 55%	-15%
5 NPC International Inc. * 2/2020 55% 40%	
6 Cirque du Soleil 3/2020 75% 75%	0%
7 Revlon 5/2020 40% 15%	-25%
8 Serta Simmons 6/2020 55% 5%	-50%
9 Renfro #1 7/2020 35% 20%	-15%
10 Party City 7/2020 75% 45%	-30%
11 Boardriders 8/2020 55% 5%	-50%
12 TriMark/TMK Hawk #1 9/2020 55% 0%	-55%
13 Travelport 9/2020 75% 0%	-75%
14 GTT 12/2020 50% 40%	-10%
15 Renfro #2 2/2021 20% 10%	-10%
16 Medical Depot 4/2021 15% 10%	-5%
17 Envision Healthcare #1 4/2022 50% 30%	-20%
18 TriMark/TMK Hawk #2 7/2022 60% 30%	-30%
19 Envision Healthcare #2 8/2022 30% Varied U	to -30%
20 Mitel Networks International 11/2022 50% 5%	-45%
21 BW Homecare/Elara Caring 12/2022 50% 20%	-30%

	Company completing the LMT	Dates	RR% before	RR% after	Change before/after
22	Rodan & Fields	4/2023	55%	40%	-15%
23	RobertShaw/Range Parent (multi-step)	5/2023	50%	0%	-50%
24	Shutterfly/Photo Holdings	6/2023	60%	35%	-25%
25	US Renal Care #1 (transfer)	6/2023	50%	30%	-20%
26	Wheel Pros	9/2023	50%	30%	-20%
27	API Holdings III Corp. / Spectrum Control	11/2023	55%	35%	-20%
28	GoTo Group	2/2024	50%	5%	-45%
29	Atlas Midco./Alvaria Inc. (transfer+priming)	3/2024	65%	Varied	Up to -60%
30	PHM Netherlands/Loparex	4/2024	60%	Varied	Up to -60%
31	Rackspace	4/2024	50%	Varied	Up to -50%
32	Digital Media Solutions Inc. (DMS)	4/2024	40%	Varied	Up to -40%
33	EyeCare Partners	4/2024	50%	Varied	Up to -50%
34	City Brewing (transfer+priming)	4/2024	50%	Varied	Up to -35%
35	Valcour Packaging / MRP Solutions	6/2024	60%	Varied	Up to -60%
36	Del Monte	8/2024	35%	Varied	Up to -35%
37	Magenta Buyer LLC (multi-step)	8/2024	65%	Varied	Up to -65%
38	PECF USS / United Site Services (multi-step)	8/2024	55%	Varied	Up to -55%
39	Reception Purchaser STG Logistics	10/2024	60%	Varied	Up to -60%
40	FinThriveSoftware	11/2024	65%	Varied	Up to -65%
41	Empire Today (transfer+double dip+priming)	12/2024	40%	10%	-30%
42	KNS Holdco /Wellful Inc.	12/2024	60%	45%	-15%

Indicates the company subsequently filed for bankruptcy Indicates the company either subsequently re-defaulted and/or is rated 'CCC+' or lower.

Data covers aggressive out-of-court loan restructurings (LMTs) we've tracked where all lenders were disadvantaged by new third-party debt or where not all lenders were offered pro rata restructuring terms on existing 1L debt. Excludes cases note/bond restructurings. Source: S&P Global Ratings and company reports.

Loan LMTs | CLO Managers Tend To Reduce Exposure Ahead Of Liability Management Exercises (LMEs)

Count Of managers with exposure to selected 2024 LMEs

	Manuali add ME	12 months prior to	9 months prior to	6 months prior to	3 months prior to	month
2024 LME's	Month of LME	LME	LME	LME	LME	of LME
Atlas Purchaser Inc.	Mar-2024	11	12	11	12	11
City Brewing Co. LLC	Apr-2024	28	26	24	26	24
Del Monte Foods Inc.	Aug-2024	32	34	33	34	30
Digital Media Solutions LLC	Apr-2024	3	4	3	4	4
EyeCare Partners LLC	Apr-2024	49	52	49	49	42
GoTo Group Inc.	Feb-2024	52	52	48	50	44
Magenta Buyer LLC	Aug-2024	54	53	50	47	40
PECF USS Intermediate Holding III Corp.	Aug-2024	62	55	51	26	25
PHM Netherlands Midco B.V.	Apr-2024	12	13	12	12	11
Rackspace Technology Global Inc.	Apr-2024	56	55	54	54	9
Valcour Packaging LLC	Jun-2024	28	27	26	22	21
Reception Purchaser LLC	Oct-2024	10	10	10	10	7
FinThrive Software Intermediate Holdings Inc.	Nov-2024	48	46	39	30	25
Empire Today LLC	Dec-2024	16	16	13	8	7
Wellful Inc.	Dec-2024	7	7	7	7	7
Average		31.20	30.80	28.67	26.07	20.47

- Almost all U.S. BSL CLO managers had some exposure to 2024 LME's (all of these issuers were part of CLO 'CCC' baskets ahead of the LME; some of these LMEs were widely held while some were thinly held).
- On average, the count of managers with exposure to these issuers declined during the year ahead of the LME.
- On average, CLO managers had exposure to roughly three LMEs this year (worth about 1% of total collateral);
- A small cohort of managers had no exposures (though some were from managers of vintage transactions that are no longer reinvesting).

LME--Liability management exercise. LMT--Liability management transaction.

Loan LMTs | Four Primary Liability Management Techniques

Collateral/asset transfers (aka asset dropdowns) (e.g., J. Crew)

- Involves the transfer of collateral/assets to non-obligor subsidiaries (typically unrestricted subsidiaries, but possibly a restricted non-guarantor).
- These non-obligor subsidiaries then borrow new secured debt against the value of the transferred assets.
- The new debt has a priority claim to the value of these assets/subsidiaries (via collateral pledges and structural seniority).
- If these subsidiaries are unrestricted, they are not subject to the covenants of the existing debt.

Priming loan exchanges (aka uptiers) (e.g., Serta, Trimark)

- Requires an amendment from a subgroup of lenders. This ad hoc group must own >=50.1% of the loan, although a higher threshold may be required.
- New debt is raised with a priority position relative to existing debt (e.g., first-lien first-out or super senior loans).
- The ad hoc group also generally elevates their existing loans into a senior position ahead of other lenders (e.g., first-lien second-out vs. 1L30, 1L40, etc.).
- Even when participation is widely offered to other lenders, terms generally still favor the ad hoc group (allocations of more senior tranches, fees, spreads, etc.).

Loan LMTs | Four Primary Liability Management Techniques Cont.

Pari plus structures (e.g., Sabre, Trinseo, Envision #1)

- New secured debt is raised at a non-obligor, giving it a secured and structurally senior claim to the assets of this entity and guarantors exclusive to this debt.
- Proceeds from the new debt are lent to an obligor of the company's existing debt via an intercompany loan that is guaranteed and secured on an equal basis with the company's existing secured debt (and pledged to secure the new debt).
- The new debt gets: (i) a "pari" claim to the existing collateral via the inter-company loan; and (ii) a priority claim to the value of its obligors (the "plus" part).
- If the obligors on the new debt do not already own unpledged assets of value, then the transaction would need to include a transfer of collateral/assets.

Double dip/partial double dip (e.g., At Home, Wheel Pros)

- New secured debt is raised at a non-obligor entity (unrestricted or restricted).
- The new debt is guaranteed and secured on an equal basis by the obligors on the company's existing debt (giving it a direct claim to the existing collateral).
- Proceeds from the new debt are lent to an obligor of the company's existing debt via an intercompany loan that is guaranteed on an equal basis with the company's existing secured debt (and pledged to secure the new debt).
- So, the new loan has a "double" claim to the value of existing collateral. Limited capacity to add debt/liens/guarantees may result in a "partial" double dip.
- The new borrower does not need to have any standalone value.

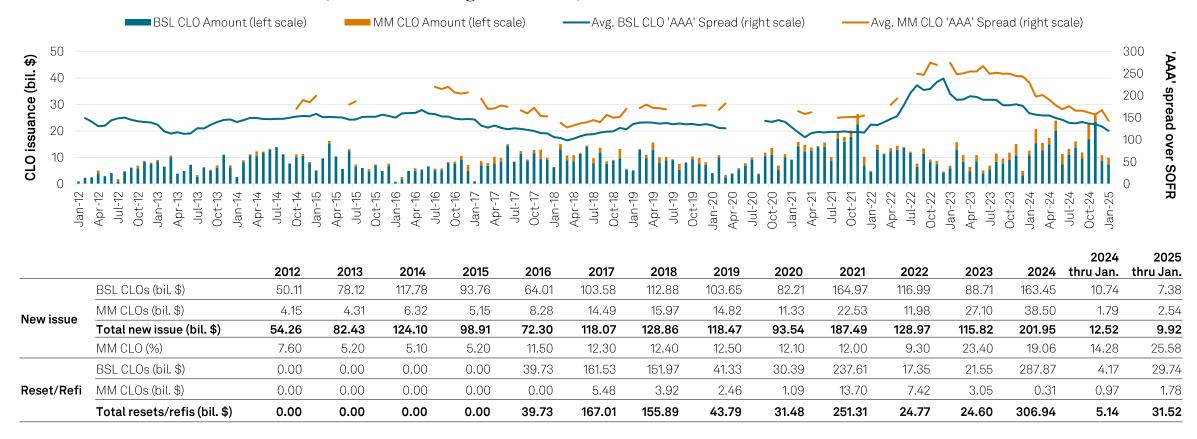
Further Reading: U.S. Leveraged Finance

- U.S. Leveraged Finance Q4 2024 Update: Outperforming Private Credits Thrive After BSL Transition, Jan. 31, 2025
- <u>Debt Restructuring Snapshot: FinThrive Software Intermediate Holdings Inc.</u>, Jan. 15, 2025
- Debt Restructuring Snapshot: Reception Purchaser LLC (STG Logistics), Dec. 13, 2024
- North American Sector Recoveries: Actual 1L Debt Recoveries Trend Down; Significant Drops In Some Sectors, Dec. 11, 2024
- Private Markets: How Will Private Credit Respond To Declining Yields?, Dec. 4, 2024
- Code And Care: Navigating Private Credit Risk In The Software And Health Care Services Industries, Nov. 19, 2024
- Debt Restructuring Snapshot: PECF USS Intermediate Holding III Corp. (United Site Services Inc.), Nov. 6, 2024
- U.S. Leveraged Finance Q3 2024 Update: Sponsor-Backed Companies Experiencing Highlights And Lowlights, Oct. 30, 2024
- Demystifying Loan Liability Management Transactions And Their Impact On First-Lien Lenders, Oct. 30, 2024
- Distressed Exchanges Underpin Rise In North American Selective Defaults, Oct. 28, 2024
- <u>Debt Restructuring Snapshot: Del Monte Foods Inc</u>. Oct. 8, 2024
- Debt Restructuring Snapshot: Magenta Buyer LLC (dba Trellix And Skyhigh Security), Oct. 2, 2024
- Leveraged Finance: Documentation, Flexible Structuring Continue To Reign In Private Credit, Sept. 17, 2024
- <u>U.S. Leveraged Finance Q2 2024: Credit Trends Generally Positive, But First-Lien Recovery Prospects Still Under Pressure, Aug. 7, 2024</u>
- Private Markets Monthly, June 2024: How Aggressive Out-Of-Court Loan Restructurings Threaten Institutional First-Lien Recovery Prospects, July 3, 2024
- Sixth Annual Study Of EBITDA Addbacks, March 27, 2024
- Are Prospects For Global Debt Recoveries Bleak?, March 14, 2024
- <u>PIK Refinancing: A Little Room To Breathe, Or One Step Closer To The Edge?</u> Feb. 8, 2024
- <u>Default, Transition, and Recovery: U.S. Recovery Study: Loan Recoveries Persist Below Their Trend, Dec. 15, 2023</u>
- North American Debt Recoveries May Trend Down For Longer, Dec. 11, 2023
- Leveraged Finance: Creative Structuring Helps Trinseo PLC, Comes With Lowered Recovery Prospects And Higher Costs, Sept. 19, 2023



CLO Issuance | Another Record Year On The Horizon?

U.S. BSL and MM CLO issuance (Jan. 2012 through Jan. 2025)

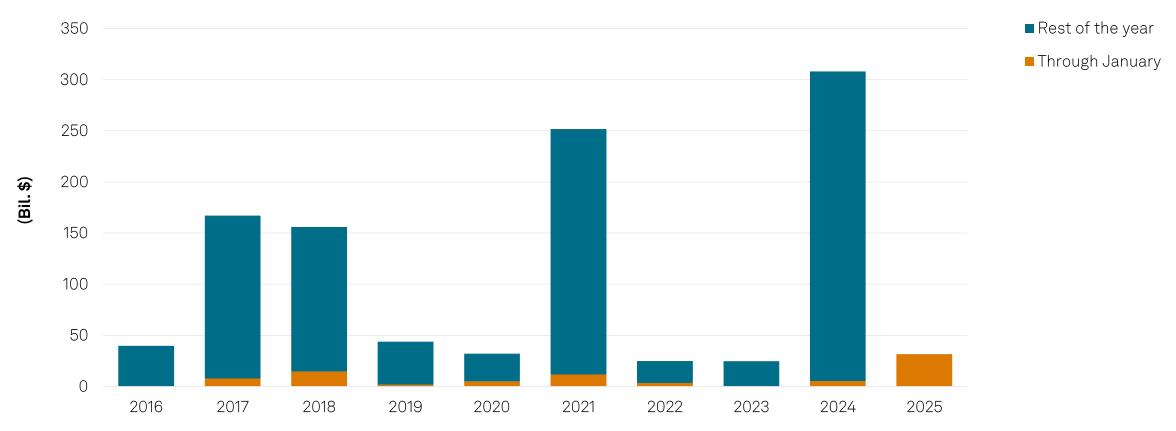


BSL--Broadly-syndicated loan. MM--Middle-market. Source: S&P Global Ratings and Pitchbook LCD.



CLO Issuance | Resets And Refis Dominate January 2025 CLO Issuance

CLO refinance/reset issuance volume



Source: S&P Global Ratings, Pitchbook LCD



CLO Metrics | WAS And WARR Have Drifted Down; Other Metrics Mostly Stable

- The U.S. CLO Insights Index averages CLO portfolio metrics across a large sample of reinvesting S&P Global Ratings-rated U.S. BSL CLOs and provides a one-year lookback at performance.
- The Index includes CLOs that have been reinvesting for the entirety of the past year and is based on a cohort of transactions with at least 11 months of processed trustee reports. Therefore, numbers from prior months can change as new CLOs are added or removed from the one-year lookback period.

		'CCC' category	Below 'CCC-'			Weighted avg. spread	Watch negative	Negative outlook	Weighted avg. price of	Jr. O/C cushion	% of
As of date	'B-' (%)	(%)	(%)	SPWARF	WARR (%)	(%)(iv)	(%)	(%)	portfolio (\$)	(%)	target par
1/31/2024(i)	26.11	6.39	0.88	2717	59.63	3.66	0.35	17.89	96.79	4.40	99.88
2/29/2024(i)	26.41	6.00	0.98	2718	59.62	3.64	0.53	16.56	97.27	4.30	99.82
3/31/2024(i)	26.15	6.81	0.74	2718	59.34	3.64	0.66	16.15	97.45	4.26	99.78
4/30/2024(i)	25.70	6.44	0.97	2727	59.04	3.63	0.93	15.95	97.10	4.15	99.70
5/31/2024(i)	25.42	6.67	0.48	2691	59.35	3.62	0.95	15.62	97.24	4.04	99.61
6/30/2024(i)	25.30	6.36	0.40	2674	59.13	3.62	1.14	15.04	96.95	4.08	99.57
7/31/2024(i)	25.19	6.46	0.32	2663	59.10	3.59	0.94	15.13	97.03	4.08	99.52
8/30/2024(i)	25.18	6.40	0.57	2679	58.76	3.58	1.11	14.82	97.03	4.01	99.43
9/30/2024(i)	25.07	6.37	0.59	2681	58.91	3.55	1.44	15.00	97.13	3.88	99.35
10/31/2024(i)	24.73	6.21	0.54	2667	58.94	3.53	1.29	14.22	97.28	3.92	99.31
11/30/2024(i)	25.38	5.37	0.69	2665	58.65	3.52	1.17	13.36	97.56	3.86	99.28
12/31/2024(ii)	25.57	5.65	0.51	2658	58.28	3.49	1.31	13.41	97.51	3.82	99.25
1/20/2025(iii)	25.54	5.77	0.69	2674	57.67	3.48	1.08	12.87	97.39	3.82	99.25

(i)Index metrics based on end-of-month ratings and pricing data and as of month portfolio data available.

(ii)Index metrics based on Dec. 31, 2024, ratings and pricing data and latest portfolio data available to us.

(iii)Index metrics based on Jan. 20, 2025, ratings and pricing data and latest portfolio data available to us.

(iv)Weighted average spread across rated U.S. BSL CLO portfolios.

BSL--Broadly syndicated loan. O/C--Overcollateralization. SPWARF--S&P Global Ratings' weighted average rating factor. WAS--Weighted average spread. WARR--Weighted averaged recover rate. Source: S&P Global Ratings.



CLO Metrics | Looking Beyond The Averages: Top 20% And Bottom 20%

Credit metrics for best performing quintile of BSL CLOs*

Credit metrics for worst performing quintile of BSL CLOs*

As of date	'B-' (%)	'CCC' category (%)	Below 'CCC-' (%)	SPWAR F	WARR (%)	Jr. O/C cushion (%)	% of target par	As of date	'B-' (%)	'CCC' category (%)	Below 'CCC-' (%)	SPWARF	WARR (%)	Jr. O/C cushion (%)	% of target par
1/31/2024(i)	24.76	5.25	0.98	2671	60.29	4.17	99.65	1/31/2024(i)	25.78	7.74	0.94	2767	59.74	4.25	99.91
2/29/2024(i)	25.08	5.00	1.02	2673	60.21	4.18	99.66	2/29/2024(i)	26.27	7.18	1.16	2776	59.67	4.03	99.80
3/31/2024(i)	25.03	5.75	0.74	2671	60.04	4.22	99.64	3/31/2024(i)	25.80	7.98	0.93	2771	59.38	3.90	99.73
4/30/2024(i)	24.76	5.70	0.72	2673	59.75	4.23	99.63	4/30/2024(i)	25.35	7.49	1.30	2785	59.11	3.67	99.60
5/31/2024(i)	24.51	5.93	0.34	2650	60.00	4.24	99.60	5/31/2024(i)	25.15	7.67	0.71	2742	59.34	3.41	99.45
6/30/2024(i)	24.47	5.71	0.29	2640	59.81	4.27	99.59	6/30/2024(i)	24.82	7.37	0.57	2716	59.07	3.40	99.36
7/31/2024(i)	24.40	5.80	0.29	2638	59.69	4.26	99.56	7/31/2024(i)	24.51	7.46	0.48	2698	59.05	3.42	99.29
8/30/2024(i)	24.46	5.83	0.48	2654	59.25	4.20	99.52	8/30/2024(i)	24.32	7.16	0.78	2710	58.88	3.32	99.12
9/30/2024(i)	24.46	5.75	0.56	2659	59.34	4.17	99.47	9/30/2024(i)	24.20	7.13	0.79	2707	59.08	3.15	99.03
10/31/2024(i)	24.25	5.72	0.36	2636	59.39	4.25	99.47	10/31/2024(i)	23.72	6.85	0.87	2699	59.06	3.12	98.92
11/30/2024(i)	24.89	4.87	0.54	2638	59.09	4.33	99.48	11/30/2024(i)	24.41	5.95	0.90	2686	58.80	2.86	98.75
12/31/2024(ii)	25.26	5.17	0.42	2637	58.77	4.34	99.48	12/31/2024(ii)	24.40	6.20	0.71	2675	58.41	2.81	98.66
1/20/2025(iii)	25.22	5.41	0.57	2653	58.17	4.34	99.48	1/20/2025(iii)	24.42	6.25	0.89	2689	57.72	2.81	98.66

(i)Index metrics based on end-of-month ratings and pricing data and as of month portfolio data available. Top and bottom 20% of CLOs ranked by change in junior O/C test cushion over past year across our index of reinvesting BSL CLOs. (ii)Index metrics based on Dec. 31, 2024, ratings and pricing data and latest portfolio data available to us.

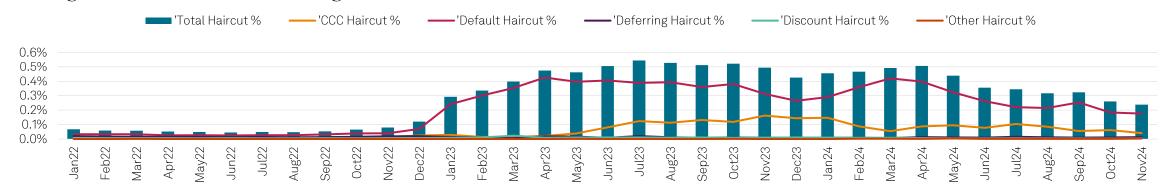
BSL--Broadly syndicated loan. O/C--Overcollateralization. SPWARF--S&P Global Ratings' weighted average rating factor. WARR--Weighted averaged recover rate. Source: S&P Global Ratings.



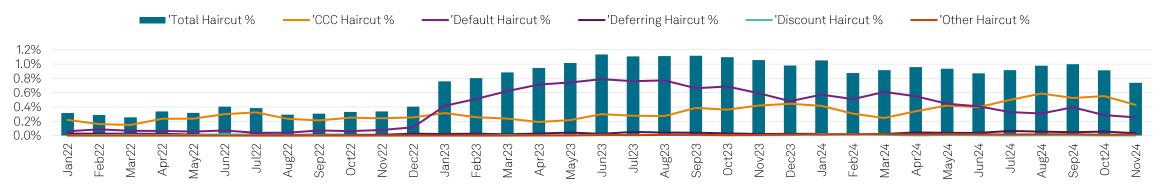
⁽iii)Index metrics based on Jan. 20, 2025, ratings and pricing data and latest portfolio data available to us.

CLO Metrics | O/C Haircuts Decline For Reinvesting Transactions

Average O/C metrics for reinvesting U.S. BSL CLOs



Average O/C metrics for amortizing U.S. BSL CLOs



O/C--Overcollateralization. BSL--Broadly syndicated loan. CLO--Collateralized loan obligation. Source: S&P Global Ratings.



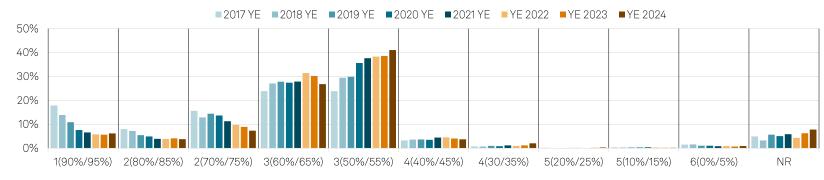
Asset Ratings | Loans From 'B-' Obligors Decrease, But So Do Recoveries

• Rating distribution for assets in reinvesting U.S. BSL CLOs (2017-2024)*



^{*}Latest data as of Aug. 1, 2023. YE--Year end. Source: S&P Global Ratings.

• Recovery ratings distribution for assets in reinvesting U.S. BSL CLOs (2017–2024)*

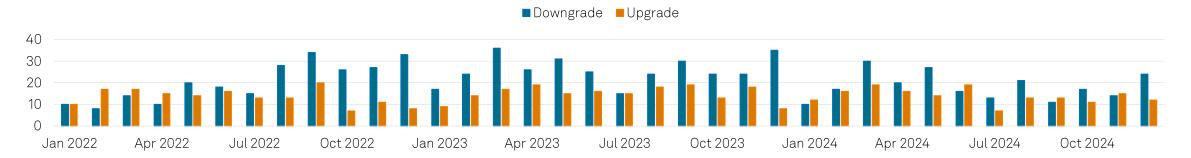


^{*}Latest data as of April 1, 2024. NR--Not rated. YE--Year end. BSL--Broadly syndicated loan. CLO--Collateralized loan obligation. Source: S&P Global Ratings.

- Exposure to 'B-' rated issuers has declined to about 26%, a level not seen since mid-2021. Historically, companies rated 'B-' are more likely to see a downgrade (by definition, into the 'CCC' range or lower) or default than loans from companies rated 'B' or higher, even in benign economic periods.
- Over the past several years, there has also been a significant increase in loans with a recovery rating of '3'. In particular, point estimates of either 50% or 55% (i.e., the 3L category in the chart) make up over 41% of total CLO asset par, compared with about 30% prior to the COVID-19 pandemic.

Asset Ratings | U.S. CLO Obligor Downgrades (2022 - 2024)

Downgrades on U.S. BSL CLO obligor ratings (2022–2024)

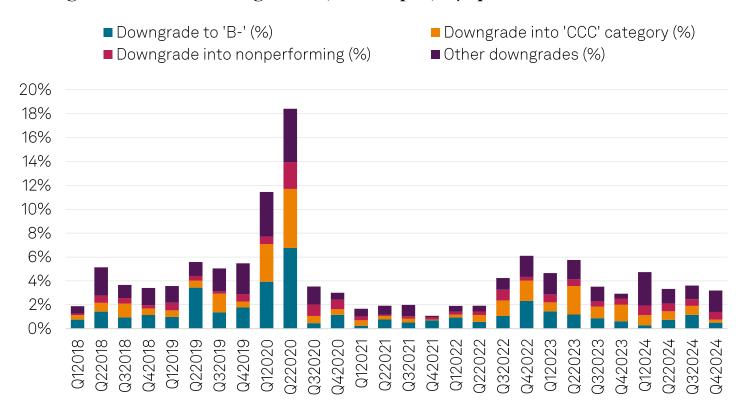


		Downgrades					_	Upgrades			
				DG into 'CCC'	DG into 'CC'			UG to 'B' or		UG within	Emergence
Month	Total DG*	Other DG	DG to B-	category	category	SD/D	Total UG*	above	UG to 'B-'	'CCC' category	from SD/D
Q1 2022	32	14	9	8	1	3	44	37	6	1	2
Q2 2022	48	16	16	12	4	6	45	32	12	1	3
Q3 2022	77	22	31	22	2	12	46	35	9	2	4
Q4 2022	86	29	22	30	5	7	26	25	1	0	8
Q1 2023	77	34	21	19	3	23	40	37	2	1	16
Q2 2023	82	25	17	35	5	26	50	48	2	0	15
Q3 2023	69	39	13	15	2	16	52	42	8	2	12
Q4 2023	83	35	17	26	5	18	39	37	2	0	14
Q1 2024	57	32	12	8	5	22	47	42	3	2	13
Q2 2024	63	27	13	20	3	20	49	42	5	2	20
Q3 2024	45	19	11	12	3	13	33	29	4	0	11
Q4 2024	55	30	5	11	9	24	38	32	4	2	21
Total	774	322	187	218	47	190	509	438	58	13	139

DG--Downgrade. UG--Upgrade. Source: S&P Global Ratings. *Defaults/emergence from default are not included in total DG or total UG counts.

Asset Ratings | BSL CLO Exposure To Corporate Rating Downgrades Declines Slightly In Fourth-Quarter 2024

Average CLO assets downgraded (% total par) by quarter



- The count of downgrades across U.S. BSL CLO obligors in the fourth quarter has increased slightly since the third quarter.
- The chart on the left shows BSL CLO collateral (by par) that has been downgraded during each quarter since 2018.
- The proportion of BSL CLO collateral downgraded into the 'CCC' rating category has declined to a recent low of 0.25% on average in fourth-quarter 2024; as a result, average 'CCC' buckets across the CLO index has declined slightly during this time.

CLO--Collateralized loan obligation. Source: S&P Global Ratings.



CLO Managers | Exposure To Fourth-Quarter Rating Actions By Manager (1 Of 2)

Average CLO assets downgraded and upgraded

(% total par, by CLO manager group for fourth-quarter 2024)

Manager at close of deal	No. of S&P Global Ratings- rated deals in sample	Upgrades (%)	Downgrades (%)		'CCC' category	Downgrade into nonperforming (%)	Other downgrades (%)	Top 250 (%)	Sum of 2024 Upgrades*	Sum of 2024 Downgrades*
Blackstone/GSO CLO Management LLC	30	1.70	1.84	0.30	0.00	0.73	0.80	57.15	11.31	15.09
Oak Hill Advisors LP	28	1.16	1.08	0.09	0.00	0.33	0.67	55.51	10.25	8.13
Elmwood Asset Management LLC	27	1.96	4.52	0.38	0.43	0.88	2.82	52.82	12.72	15.35
PGIM Inc.	22	3.46	4.30	0.44	0.44	0.56	2.87	54.25	15.13	20.54
Benefit Street Partners LLC	20	2.71	3.06	0.30	0.28	1.18	1.30	53.49	15.77	12.62
Onex Credit Partners LLC	19	2.20	2.20	0.39	0.00	0.00	1.82	50.61	11.02	8.98
Ares CLO Management LLC	16	1.20	3.08	0.74	0.41	0.62	1.32	48.62	11.33	13.97
Trinitas Capital Management, LLC	15	2.44	3.01	0.27	0.00	0.87	1.87	53.49	13.09	12.38
Ballyrock Investment Advisors LLC	14	2.33	3.84	0.25	0.28	0.89	2.41	52.99	10.28	16.41
CIFC Asset Management LLC	14	1.93	3.49	0.17	0.42	0.89	2.01	54.87	13.06	13.81
Redding Ridge Asset Management LLC	14	2.21	1.64	0.32	0.02	0.30	1.00	65.96	12.52	14.40
Oaktree Capital Management L.P.	14	2.68	3.45	0.14	0.00	1.32	1.99	51.42	13.03	14.50
UBS Asset Management (Americas) LLC	13	2.19	3.55	0.71	0.15	0.87	1.82	49.92	9.97	12.62
BlackRock Financial Management Inc.	13	2.03	1.98	0.00	0.00	0.28	1.70	61.42	16.75	12.58
Generate Advisors LLC	12	1.44	4.16	0.45	0.91	0.99	1.81	40.90	8.76	13.94

^{*}Sum of latest four quarters as reported across current and prior three quarterly slide deck updates. CLO--Collateralized loan obligation. Source: S&P Global Ratings.



CLO Managers | Exposure To Fourth-Quarter 2024 Rating Actions By Manager (2 Of 2)

Average CLO assets downgraded and upgraded

(% total par, by CLO manager group for fourth-quarter 2024)

	No. of S&P Global				Downgrade	Downgrade into	Other			
Marian at the control	Ratings-rated deals		Downgrades [into 'CCC'	nonperformin	downgrades	T 050 (04)	Sum of 2024	
Manager at close of deal	in sample	Upgrades (%)	(%)	'B-' (%)	category (%)		(%)	Top 250 (%)	_	Downgrades*
Sixth Street CLO Management, LLC	11	1.55	3.26	1.28	0.00	0.25	1.74	57.14	10.65	10.05
Palmer Square Capital Management LLC	11	2.30	1.79	0.29	0.10	0.15	1.25	48.24	12.32	11.08
Neuberger Berman Investment Advisers LLC	10	1.95	4.46	0.77	0.22	0.44	3.02	55.83	13.59	17.14
AEGON USA Investment Management LLC	10	1.93	3.78	1.41	0.29	0.66	1.42	53.72	14.22	21.43
Carlyle Investment Management LLC	10	2.68	4.00	0.70	0.38	0.56	2.36	53.08	12.52	14.26
Octagon Credit Investors, LLC	10	1.87	4.93	0.14	0.28	0.57	3.94	56.98	13.21	23.46
Allstate Investment Management Co.	10	2.66	0.55	0.00	0.00	0.39	0.16	60.51	14.65	7.23
TCW Asset Management Co. LLC	10	2.05	1.91	0.00	0.00	0.39	1.52	44.24	12.09	16.65
Barings LLC	10	1.75	2.36	0.10	0.00	1.07	1.19	48.99	15.06	12.30
CVC Credit Partners U.S. CLO Management LLC	9	2.55	4.53	0.86	0.32	0.24	3.11	55.21	16.32	17.71
Fortress Investment Group LLC	9	2.15	3.29	0.00	1.32	0.20	1.77	26.57	8.61	11.55
Marathon Asset Management, L.P.	9	2.05	3.26	1.07	0.15	1.05	0.99	54.25	11.51	14.70
Symphony Asset Management, LLC	8	2.75	3.83	0.52	0.94	0.51	1.86	50.98	14.84	17.94
Sound Point Capital Management LP	8	2.97	3.62	0.56	0.20	1.35	1.51	54.20	15.72	18.09
Mariner Investment Group LLC	8	2.03	3.76	0.75	0.19	0.98	1.84	51.52	16.23	18.84

^{*}Sum of latest four quarters as reported across current and prior three quarterly slide deck updates. CLO--Collateralized loan obligation. Source: S&P Global Ratings.



CLO Managers | Wide Range Of Corporate Metrics Across Managers (1 Of 2)

Manager at close of deal	Obligors matched to corporate metrics (%)	Median revenues M (mil. \$)	edian EBITDA (mil. \$)	Median debt to EBITDA		ledian FOCF to debt (%)	Revenues weighted by exposure (mil. \$)	EBITDA weighted by [exposure (mil. \$)	Debt to EBITDA weighted by exposure*	BITDA interest coverage weighted by exposure *	FOCF to debt if weighted by exposure	Proportion less than \$750M debt (%)
Blackstone	82.68	1,916	354	6.23	2.01	3.80	4,195	828	7.40	2.12	1.06	6.79
Oak Hill	83.77	1,879	379	6.07	2.05	4.37	3,284	719	6.83	2.29	1.06	8.64
Elmwood	82.17	2,076	365	5.82	2.28	5.27	4,163	804	6.52	2.57	2.40	7.97
PGIM	80.02	2,397	467	5.35	2.40	5.85	5,640	1,196	6.14	2.66	1.70	8.02
Benefit Street	75.81	2,030	393	5.86	2.09	4.19	4,855	1,014	6.42	2.37	1.04	8.60
Onex	80.34	2,142	375	6.15	2.03	4.20	4,771	938	6.56	2.40	1.62	6.94
Ares	79.91	1,906	379	6.06	2.02	4.84	4,093	878	6.96	2.14	2.24	8.75
Trinitas	77.69	1,941	375	5.95	2.15	4.80	3,665	770	6.69	2.44	0.95	6.91
Ballyrock	81.53	2,343	405	5.58	2.26	5.13	4,568	921	6.39	2.57	1.00	7.55
CIFC	76.50	1,833	339	6.07	2.05	4.47	5,082	1,021	6.80	2.28	1.47	7.24
Apollo	80.40	2,289	419	6.23	2.07	3.38	4,644	924	7.05	2.27	1.12	4.81
Oaktree	72.89	2,100	431	5.69	2.24	4.89	4,797	1,005	6.21	2.53	1.67	7.26
Credit Suisse	79.43	1,680	286	5.82	2.16	4.76	3,383	654	7.33	2.27	1.41	10.80
BlackRock	82.09	2,326	483	6.08	2.17	4.09	4,643	909	6.63	2.43	1.45	5.82
Generate	82.19	1,879	295	5.96	2.05	4.40	3,786	679	6.61	2.49	1.85	13.53

^{*}Excluded issuers with a ratio greater than 20 and less than -20. Median and weighted average corporate metrics based off latest CLO portfolios available to us as of Jan. 1, 2025 which are matched to latest corporate financial data available to us; 80% match across the CLO portfolios. Source: S&P Global Ratings.



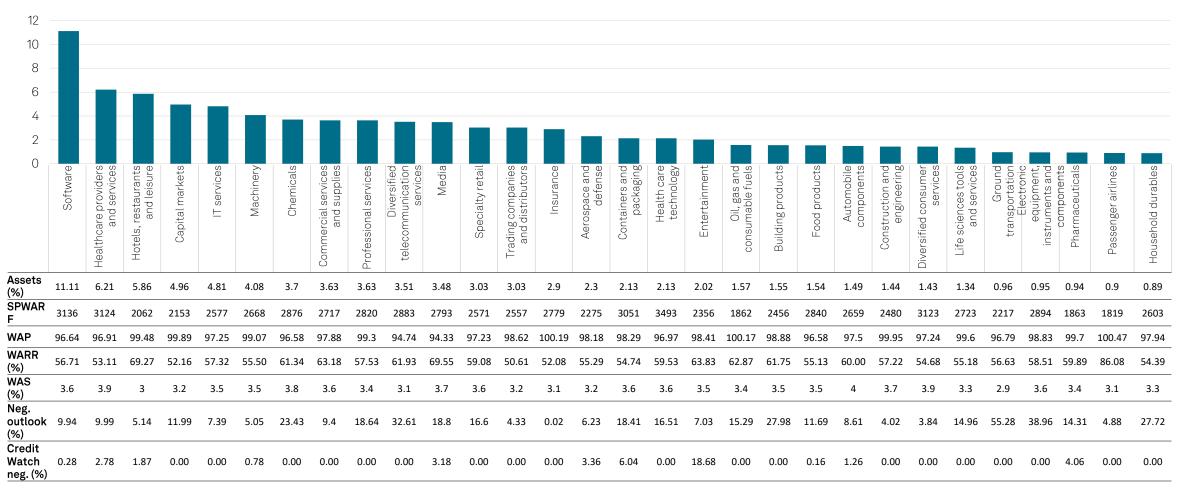
CLO Managers | Wide Range Of Corporate Metrics Across Managers (2 Of 2)

Manager at close of deal	Obligors matched to corporate metrics (%)	Median revenues M	edian EBITDA M (mil. \$)		Median EBITDA interest M coverage	edian FOCF to	Revenues weighted by exposure (mil. \$)		Debt to EBITDA weighted by exposure*	BITDA interest coverage weighted by exposure *	FOCF to debt F weighted by exposure	Proportion less than \$750M debt (%)
Sixth Street	80.83	1,984	399	6.19	2.05	4.36	3,195	• •	7.00	2.20	1.06	7.67
Palmer Square	76.31	1,855	385	5.96	2.14	4.89	4,051	786	6.54	2.51	2.38	9.01
Neuberger Berman	78.75	2,116	398	5.89	2.14	4.79	5,191	1,152	6.66	2.36	0.80	5.52
Aegon	83.42	2,519	486	5.92	2.18	4.20	5,356	962	6.36	2.43	0.92	8.19
Carlyle	74.24	1,963	381	6.16	2.07	4.31	5,001	1,062	7.14	2.33	1.53	5.91
Octagon	78.10	1,966	341	6.11	2.01	4.20	4,843	1,014	6.86	2.24	1.15	6.53
Allstate	81.53	2,767	509	5.64	2.30	5.11	6,570	1,522	6.25	2.67	2.32	5.51
TCW	79.12	2,005	362	6.10	2.05	3.98	4,363	958	6.87	2.45	2.01	9.15
Barings	82.67	2,425	445	5.81	2.22	4.38	4,691	969	6.25	2.74	1.62	9.32
CVC	79.17	2,173	404	5.86	2.10	4.74	4,891	1,020	6.73	2.34	1.54	7.36
Fortress	71.61	1,171	208	6.61	1.73	2.41	3,206	510	7.05	1.96	7.00	28.67
Marathon	78.95	2,118	379	5.83	2.17	4.96	4,080	791	6.25	2.50	1.07	6.83
Symphony	79.88	2,289	409	6.08	2.04	4.17	4,518	831	6.90	2.15	0.87	4.79
Sound Point	80.14	2,090	363	5.97	2.06	4.17	5,059	1,041	6.84	2.26	1.16	6.39
ORIX	82.29	1,941	371	5.71	2.14	4.06	3,745	743	6.21	2.54	3.02	10.65
Average across all managers	79.55	2,098	391	5.96	2.09	4.41	4,343	882	6.59	3.35	1.85	9.58

^{*}Excluded issuers with a ratio greater than 20 and less than -20. Median and weighted average corporate metrics based off latest CLO portfolios available to us as of Jan. 1, 2025 which are matched to latest corporate financial data available to us; 80% match across the CLO portfolios. Source: S&P Global Ratings.



Industry Categories | Credit Metrics Across Top 30 GIC Industry Categories



SPWARF--S&P Global Ratings' weighted average rating factor. WAP--Weighted average price. WARR--Weighted average recovery rate. WAS--Weighted average spread. O/C--Overcollateralization. Source: S&P Global Ratings.



Industry Categories | Different Industry Categories, Different Performance

Count of downgrades across U.S. BSL CLO obligors

GICs industry group(i)	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Total
Health Care Equipment & Services	6	7	10	11	9	13	7	10	6	9	4	5	97
Materials	1		3	6	8	10	10	10	6	11	3	5	73
Software & Services	2	4	1	8	6	10	8	10	2	1	6	6	64
Media & Entertainment	2	3	6	12	6	3	2	3	8	5	6	6	62
Capital Goods	5	7	7	3	3	3	7	7	1	3	4	4	54
Consumer Di4cretionary Distribution & Retail		1	7	5	6	4	5	7	3	4	6	6	54
Commercial & Professional Services	1	5	4	5	4	10	4	4	1	6	2	2	48
Financial Services	1	5	8	4	2	4	5	3	2	3		2	39
Consumer Durables & Apparel	2	2	7	5	5	6	5	2	2			2	38
Food, Beverage & Tobacco	5	1	6		4	4	4	2	3	2	4	1	36
Telecommunication Services	2		1	6	2	4	2	4	5	3	2	1	32
Technology Hardware & Equipment	1	3	4	3	3	3	1	2	3	1	2	3	29
Consumer Services	2	2	1	3	2	2	1	4	3	3	1	3	27
Pharmaceuticals, Biotechnology & Life													
Sciences		3	4	1	3	1	2	4	3	2			23
Household & Personal Products	1	3	2	2	2		1	1	1	1		1	15
Real Estate Management & Development				1	4	1	3	2	1	1		2	15
Automobiles & Components			5	7	1								13
Energy			1	2		1	1	2	2	2	1		12
Transportation								4	2	4	1	1	12
Equity Real Estate Investment Trusts (REITs)	1			1	1		1	1	2	1		1	9
Semiconductors & Semiconductor Equipment					2	1		1	1		2	2	9
Consumer Staples Distribution & Retail		1				2					1	1	5
Utilities		1			2	1						1	5
Insurance					1					1			2
Project Finance				1									1
Grand Total	32	48	77	86	76	83	69	83	57	63	45	55	774

⁽i)Downgrades to 'SD'/'D' excluded. SD--Selective default. BSL--Broadly syndicated loan. CLO--Collateralized loan obligation. Source: S&P Global Ratings.



CLO Research | The Value Of Active Management (Full-Year 2024)

- Turnover of assets in BSL CLO collateral pools in 2024 was just under 60% at the loan level and 28% at the issuer level (difference due to high level of loan refinancing activity).
- To examine the impact that portfolio turnover had on CLO credit metrics, we looked at the actual change in BSL CLO credit metrics in 2024, including portfolio turnover (table 1); metrics from the same BSL CLO collateral pools while assuming they were static CLOs with no trading or asset turnover (table 2); and the difference between the actual CLO portfolios and hypothetical static CLO portfolios (table 3).
- On average, several CLO credit metrics benefitted from the trading activity (actual vs hypothetical): exposure to 'CCC' assets and defaulted assets was lowered, the SPWARF was lower (indicating higher average portfolio ratings), and the junior O/C test cushion was greater despite the actual par loss incurred.

Table 1 - Actual BSL CLO Performance (2023YE – 2024YE)											
Metric	2023YE	2024YE	Change								
Portfolio turnover (%)	N/A	60.02	60.02								
Exposure to 'B-' assets (%)	26.43	25.69	-0.73								
Exposure to 'CCC' assets (%)	6.93	5.98	-0.96								
Exposure to defaulted assets (%)	0.46	0.51	0.05								
SPWARF	2713	2668	-45								
Portfolio % of target par (%)	99.99	99.30	-0.68								
Junior O/C test cushion (%)	4.54	3.94	-0.60								

Table 2 - Hypothetical Static Pool BSL CLO Performance (2023YE – 2024YE)										
Metric	2023YE	2024YE	Change							
Portfolio turnover (%)	N/A	0	0							
Exposure to 'B-' assets (%)	26.43	26.48	0.06							
Exposure to 'CCC' assets (%)	6.93	9.19	2.26							
Exposure to defaulted assets (%)	0.46	1.06	0.60							
SPWARF	2713	2790	78							
Portfolio % of target par	99.99	99.99	0.00							
Junior O/C test cushion (%)	4.54	3.54	-1.00							

Table 3 - Manager Impact On CLO Metrics (2024)									
Metric	Year-end results: managed vs. hypothetical								
Portfolio turnover	60.02% higher								
Exposure to 'B-' assets	0.79% lower	V							
Exposure to 'CCC' assets	3.21% lower	V							
Exposure to defaulted assets	0.55% lower								
SPWARF	123 lower	V							
Portfolio % of target par	0.68% lower								
Junior O/C test cushion	0.40% higher								

N/A--Not applicable. O/C--Overcollateralization. SPWARF-S&P Global Ratings' weighted average rating factor. YE--Year end. Green arrow—Positive credit impact. Red arrow—Negative credit impact. Source: S&P Global Ratings.

CLO Research | CLO 'BB' Tranches: Where Are They Now?

BB Notes -		Current Ra	iting/Rating	Prior to							
New Issue		NR Com	pared To Or	iginal	Current Rating Category /Rating Category Prior To Ni						
Vintage	still o/s	higher	same	lower	BBB	BB	В	CCC	CC/D		
2014	0.00%	6.12%	71.43%	22.45%	2.04%	76.53%	8.16%	5.10%	8.16%		
2015	0.00%	14.00%	72.00%	14.00%	0.00%	96.00%	4.00%	0.00%	0.00%		
2016	2.50%	2.50%	87.50%	10.00%	0.00%	90.00%	10.00%	0.00%	0.00%		
2017	21.62%	0.00%	45.95%	54.05%	0.00%	48.65%	48.65%	0.00%	2.70%		
2018	52.80%	2.40%	61.60%	36.00%	0.80%	63.20%	36.00%	0.00%	0.00%		
2019	14.06%	0.00%	92.19%	7.81%	0.00%	92.19%	7.81%	0.00%	0.00%		
2020	8.75%	0.63%	99.38%	0.00%	0.63%	99.38%	0.00%	0.00%	0.00%		
2021	73.56%	0.00%	98.56%	1.44%	0.00%	98.56%	1.44%	0.00%	0.00%		
2022	40.51%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%		
2023	83.93%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%		
2024	100.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%		

Current	Rating	/Rating	Prior to
Current	nauiig,	raung	FIIOI LO

BB Notes REFI		NR Com	pared To Or	iginal	Current Ra	ting Catego	ry /Rating C	ategory Pric	or To NR
Vintage	still o/s	higher	same	lower	BBB	BB	В	CCC	CC/D
2014	0.00%	25.00%	75.00%	0.00%	18.75%	81.25%	0.00%	0.00%	0.00%
2015	0.00%	11.76%	88.24%	0.00%	5.88%	94.12%	0.00%	0.00%	0.00%
2016	2.86%	0.00%	82.86%	17.14%	0.00%	82.86%	14.29%	2.86%	0.00%
2017	28.21%	3.85%	34.62%	61.54%	2.56%	38.46%	56.41%	2.56%	0.00%
2018	51.11%	3.33%	41.11%	55.56%	1.11%	44.44%	46.67%	4.44%	3.33%
2019	50.00%	0.00%	19.23%	80.77%	0.00%	19.23%	80.77%	0.00%	0.00%
2020	42.86%	0.00%	85.71%	14.29%	0.00%	85.71%	14.29%	0.00%	0.00%
2021	66.67%	0.00%	99.37%	0.63%	0.00%	99.37%	0.63%	0.00%	0.00%
2022	93.33%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
2023	66.67%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
2024	98.90%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%

- A notable subset of new issue 'BB' CLO notes from the 2014 vintage experienced a downgrade into the 'CCC' and non-performing rating category.
- The new issue 2014 vintage transactions had larger exposures to energy and retail issuers which would later cause deterioration for the CLO.
- A notable subset of the new issue 'BB' CLO notes from the 2017 and 2018 vintage experienced downgrades, though, most were downgraded into the 'B' category during the pandemic.
- Despite being issued and rated within the same yar, the rating performance of new issue and refinanced 'BB' notes have differed for certain vintages.
- A majority of the 2017 and 2018 vintage refis have experienced a downgrade, considerably higher compared to that of new issue (a large proportion of these refis were resets of original 2014 vintage transactions which had already experienced some credit deterioration before reset).

CLO Ratings | No U.S. CLO 'AAA' Tranche Ratings Lowered Since 2012

- No 'AAA' rated U.S. CLO tranche has been downgraded since 2012, and that was for a CLO 1.0 transaction. No CLO 'AAA' 2.0 tranche has seen its rating lowered.
- Our outlook for both BSL and middle-market CLO ratings remains stable, especially for more senior, higher-rated CLO tranches, given the structural protections built into CLOs and rating cushions available to support most tranches. CLO tranche rating downgrades should mostly be from subordinate tranches of amortizing CLOs originated prior to the 2020 pandemic.
- From 2021 onward, each year has seen more CLO ratings raised than lowered, despite the challenging economic environment in 2022 and 2023.

U.S. BSL and MM CLO rating upgrades and downgrades (2020-2024)

U.S. BSL CLO UG

Original rating category	2020	2021	2022	2023	2024	Total (since 2020)
AAA						0
AA	5	39	14	29	68	155
A	6	47	18	30	60	161
BBB	1	46	20	18	31	116
BB		73	24	7	3	107
В	1	45	5	1		52
Grand total	13	250	81	85	162	591

US BSL CLO DG

Original rating category	2020	2021	2022	2023	2024	Total (since 2020)
AAA						0
AA	3					3
A	11					11
BBB	91	5		2	1	99
BB	282	7	5	31	32	357
В	105	5	5	15	11	141
Grand total	492	17	10	48	44	611

BSL--Broadly syndicated loan. MM--Middle market. UG--Upgrade. DG--Downgrade. Source: S&P Global Ratings.

U.S. MM CLO UG

Original rating category	2020	2021	2022	2023	2024	Total (since 2020)
AAA						0
AA		3	3		14	20
A		5	4	2	14	25
BBB		4	3	3	6	16
BB		3	2	2	2	9
В						0
Grand total	0	15	12	7	36	70

U.S. MM CLO DG

Original rating category	2020	2021	2022	2023	2024	l otal (since 2020)
AAA						0
AA						0
A	1					1
BBB					1	1
BB	5				2	7
В	1					1
Grand total	7	0	0	0	3	10
Grand total	7	0	0	0	3	

CLO Defaults | Thirty Years And 64 CLO Tranche Defaults

- S&P Global Ratings has rated more than 22,000 U.S. CLO tranches since our first CLOs in the mid-1990s. Our CLO ratings history spans three recessionary periods: the dot.com bust of 2000-2001, the global financial crisis in 2008-2009, and the more recent COVID-19-driven downturn in 2020.
- Over that period, a total of 64 U.S. CLO tranches have defaulted: 40 U.S. CLO tranches from CLO 1.0 transactions originated in 2009 or before, and another 24 U.S. CLO 2.0 tranches.
- Additionally, there are three tranches rated 'CC (sf)' that are likely to default in the future for similar reasons and another two tranches rated 'CCC- (sf)' that may default.

U.S. BSL and middle-market CLO 1.0 and 2.0 default summary by original rating (no.)

CLO 1.0 transactions (2009 and prior)

CLO 2.0 transactions (2010 and later)

	010	o transactions (2000 and	a p. 1017						
	Original ratings(i)	Defaults(ii)	Currently rated	Original ratings(i)	Defaults(ii)	Currently rated			
AAA (sf)	1,540	0	0	4,917	0	2,199			
AA (sf)	616	1	0	3,816	0	1,687			
A (sf)	790	5	0	3,178	0	1,430			
BBB (sf)	783	9	0	3,167	0	1,655			
BB (sf)	565	22	0	2,370	12	1,160			
B (sf)	28	3	0	474	12	216			
Total	4,322	40	0	17,922	24	8,347			

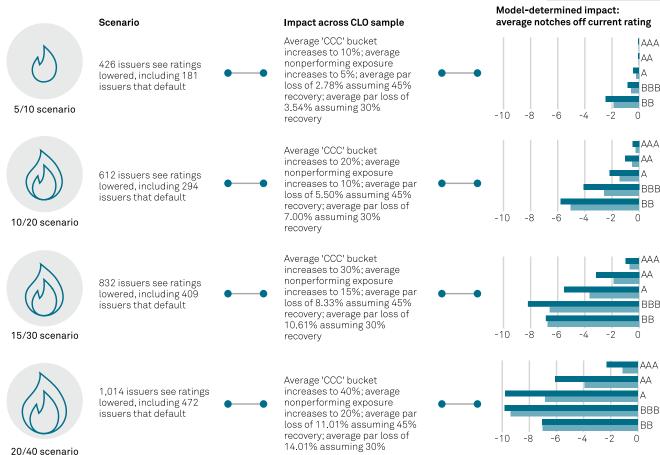
(i)Original rating counts as of Sept. 16, 2024. (ii)CLO tranche default counts as of Nov. 1, 2024. Source: S&P Global Ratings Credit Research & Insights and S&P Global Market Intelligence's CreditPro®.

Scenario Analysis | BSL CLO Rating Stress Scenarios (October 2024 Update)

45% RR

■ 30% RR

Summary of scenarios and rating impact (45% recovery)



recovery

- In October 2024, we published an updated version of our BSL CLO rating scenario analysis showing how our ratings would perform under different economic stresses.
- For this year's stress scenarios, we added scenarios with a 30% recovery assumption for defaulted assets alongside the 45% recovery assumption modeling we've published in prior years.
- We've also added two other new stresses where we take a
 different approach and notch the ratings on all obligors in
 BSL CLO collateral pools downward by one notch or two
 notches.
- As with our previous BSL CLO rating stress scenarios, the current analysis shows the CLO structure protecting senior noteholders, with more than 99% of CLO 'AAA' ratings remaining investment-grade even under our harshest scenario, where 20% of loans default with a 30% recovery and CLO 'CCC' baskets expand to 40%.
- For the full article, see "Scenario Analysis: Stress Tests Show U.S. BSL CLO Ratings Able To Withstand Significant Loan Defaults And Downgrades (2024 Update) | S&P Global Ratings," published Oct. 10, 2024.

Source: S&P Global Ratings.



Scenario Analysis | BSL CLO Rating Stress Scenarios (October 2024 Update)

Downgrade notches under scenarios (45% recovery) Downgrade notches under scenarios (30% recovery)

Current rating category	Affirm (%)		-2 (%)	-3 (%)) -4(%)	-5 (%)	-6 (%)	> -7 (%	Avg.) notches	IG (%)	SG (%)	'CCC' (%)	Below 'CCC-'
"5/10" scenario						2 (/0)	2 (70)	_ / (/0	,		3 3. (70)	(, -/	
AAA	98.01	1.99							0.02	100.0			
AA	97.61	2.03	0.36						0.03	100.0			
A	82.51	12.95	4.41					0.14	0.23	99.86	0.14		
BBB	52.37	41.58	3.55	1.58	0.79	0.13			0.57	58.03	41.97		
ВВ	25.26	32.01	14.88	10.90	5.71	3.81	1.73	5.71	1.87		100.0 0	11.07	5.71
"10/20" scenar	io at 45%	% recov	ery - all	transa	ctions								
AAA	74.00	26.00							0.26	100.0 0			
AA	63.60	22.91	12.77	0.48	0.24				0.51	100.0			
A	26.86	18.87	46.14	3.31	3.17	1.38	0.14	0.14	1.43	98.35	1.65		
BBB	8.55	38.68	15.92	10.53	9.08	5.26	3.68	8.29	2.58	11.71	88.29	5.13	3.03
ВВ	3.81	8.82	7.27	8.65	8.30	7.96	7.27	47.92	5.04		100.0	23.88	47.58
"15/30" scenar	io at 45%	% recov	ery - all	transa	ctions								
AAA	30.80	68.74	0.12		0.35				0.70	100.0			
AA	18.02	15.39	48.33	5.49	4.18	8.00	0.12	0.48	1.89	99.76	0.24		
<u>A</u>	3.99	2.62	32.09		18.18	24.38		7.02	3.64		33.61	0.55	0.69
BBB	0.66	6.71	5.13	7.63	12.24	8.29	8.95	50.39	6.60	0.92	99.08	15.79	34.08
BB	0.17	0.35	0.69	2.42	2.08	2.42	2.08	89.79	6.75		100.0	6.57	89.79
"20/40" scenar													
ASAIAce: Scenario	A161y8i6:	S66:63	īes ₹≲26 o	w 5. \$)48	SL ®1908 R	atings Al	ole To Wi	th :13a213 8	Signif ícā4 t Lo	an Defau	lts And D	owngrac	les (2024
AA	6.68	2.39	22.20	6.92	13.37	36.99	1.79	9.67	3.92	94.15	5.85		
S&P Glo	0.69	0.14	6.06	2.34	7.16	31.13	9.23	43.25	6.84	17.63	82.37	7.16	7.99
	9.2 6	0.53		1.18	3.03	2.11	1.45	91.45	9.37	0.26	99.74	9.87	79.87
Ratings IGInvestment			1		0.17	0.17	0.17	99.48	7.04		100.0	0.69	99.31

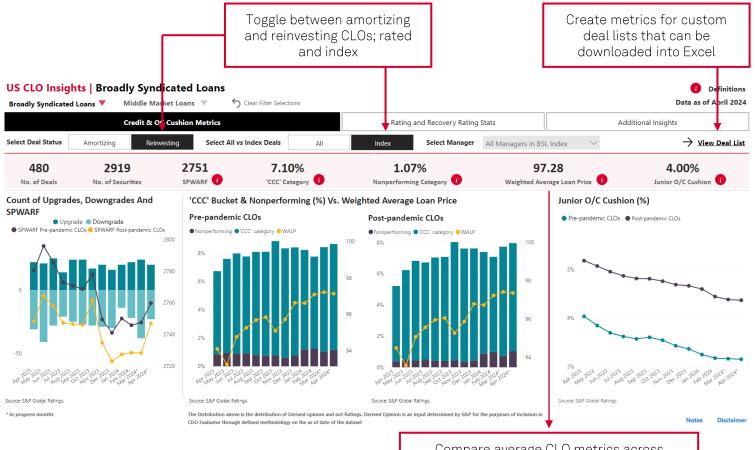
Current rating	Affirm (%)		2 (0/)	2 (0/)	. (0/)	E (0/)	e (0/)	> 7 (0/)	Avg.	IC (0/)	SC (0/)	'CCC' (%)	Below 'CCC-'
category "5/10" scenario						-5 (%)	-0 (%)	<u> </u>	notches	IG (%)	30 (%)	(70)	
			ay all t	Tansac	LIOIIS					100.0			
AAA	93.44	6.56							0.07	0			
AA	93.08	5.73	1.07	0.12					0.08	100.0			
A	70.11	17.63	11.71	0.28	0.14			0.14	0.44	99.86	0.14		
BBB		46.32		4.87	1.18	0.39	0.13	0.39	0.84		54.87	0.39	
BB			16.09		6.57	6.23	3.46	11.25	2.45		100.0		10.90
"10/20" scenari	io at 30%	% recov	ery - all	transa	ctions								
AAA	52.11	47.66	0.12	0.12					0.48	100.0			
AA	40.21	23.27	32.94	0.95	1.91	0.72			1.03	100.0			
A	14.19	11.71	49.59	6.61	8.40	7.85	0.14	1.52	2.17	90.63	9.37	0.14	
BBB	4.61	23.16	11.32	12.50	13.42	7.76	4.61	22.63	4.10	6.97	93.03	10.00	12.37
BB	1.73	6.06	5.19	4.15	6.75	5.02	4.50	66.61	5.78		100.0	16.26	66.44
"15/30" scenari	io at 30%	% recov	ery - all	transa	ctions								
AAA	19.20	71.66	2.93	3.86	1.99		0.23	0.12	0.99	100.0			
AA	9.31	6.09	34.96	6.32	12.05	23.39	1.19	6.68	3.18	96.78	3.22		
A	1.79	1.24	13.36	6.47	13.09	30.85	5.79	27.41	5.53	36.23	63.77	3.17	4.82
BBB	0.26	3.16	2.89	3.42	5.66	5.00	4.47	75.13	8.20	0.39	99.61	15.92	58.82
BB		0.35	0.35	0.87	1.90	1.73	1.21	93.60	6.88		100.0	4.84	93.60
"20/40" scenar					ctions								
date) I S&P Global F	9.60	38.64	11,36	11.24	22.37	1.29	2.11	3.40	2.29	99.65	0.35		
ÅÄ	2.98	1.67	8.00	2.74	5.37	31.86	3.46	43.91	6.10		30.79	1.07	1.79
A	0.28		2.20	1.24	2.62	12.53	6.20	74.93	9.79		92.98		
BBB		0.13	0.26	0.39	0.66	2.11	1.05	95.39	9.83	0.13	99.87	3.82	91.45
BB								100.0	7.06		100.0		100.0 0 ₄₈
IGInvestment	grade. S	GSpe	culative	grade.									

Further Reading | Collateralized Loan Obligations

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- <u>U.S. And European BSL CLOs: A Comparative Overview (2024 Update)</u>, May 23, 2024
- The Impact Of Asset Diversification On CLO Performance, Mar. 26, 2024
- A Closer Look At Uptier Priming And Asset Drop-Down Provisions In U.S. CLOs, July 26, 2023
- Good Intentions, Limited Impact: ESG-Excluded Sectors Proliferate In U.S. CLO Indentures, May 16, 2022



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Source: S&P Global Ratings.



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