

## U.S. And European BSL CLOs:

A Comparative Overview (2024 Update)

Rebecca Mun

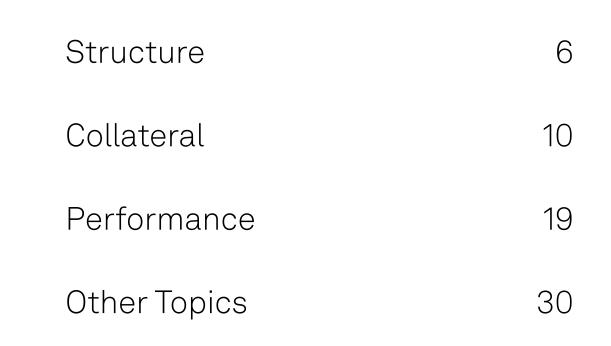
Daniel Hu

May 23, 2024

### **S&P Global** Ratings

This report does not constitute a rating action

## Contents





## The Differences Between U.S. And European BSL CLOs

#### What's New

We have added all collateralized loan obligation (CLO) rating actions taken since 2020. Upgrades have mostly outnumbered downgrades in recent years. No 'AAA' rated CLO tranche has been downgraded since 2012. Despite recent corporate rating downgrades, our outlook for CLO ratings remains stable, especially for the more senior, higher-rated CLO tranches.

#### Key Takeaways

- The differences in structures and portfolios between European and U.S. broadly syndicated loan (BSL) CLOs reflect the differences in their respective regional loan markets.
- European BSL CLO notes offer more credit enhancement than U.S. BSL CLO notes, but European CLO portfolios have a higher S&P Global Ratings' weighted average rating factor. In both regions, obligor diversity has improved, but U.S. BSL CLO portfolios continue to exhibit greater obligor and industry diversity.
- Liability spreads and the weighted average cost of debt for both EUR and U.S. BSL CLOs have fallen significantly from an all-time high in fourth-quarter 2022, but are not back to pre-pandemic levels. The spread differential between the two regions has tightened.
- Since early March, several widely held BSL CLO obligors have seen downgrades including subsidiaries of Altice Europe N.V. and Altice USA Inc. The average 'CCC' bucket in both regions has increased, with U.S. BSL CLOs having a higher 'CCC' and nonperforming assets bucket.
- Debt maturities have been extended in both Europe and U.S., with few assets maturing in 2024 and 2025, albeit most 2024 maturities comprise of issuers with significantly lower credit quality. Maturities in both regions are concentrated in 2028, with EUR BSL CLOs facing slightly more refinancing pressure in 2026.
- Both European and U.S. BSL CLOs are adapting to similar market challenges despite regional differences and continue towards a gradual alignment in their structural features and documentation.

While the overarching principles of CLOs remain consistent across the EUR and U.S. markets, a closer look reveals some nuances that differentiate EUR and U.S. BSL CLOs. (As there are no middle-market EUR CLOs, we are comparing only BSL CLOs from both regions. Henceforth, all "EUR CLO" and "U.S. CLO" references in this slide deck refer to only BSL CLOs.)

### U.S. And European CLO Performance During The COVID-19 Pandemic

The leveraged loan markets from both regions were both impacted by the pandemic in 2020, when the lagging 12-month loan default rates peaked at 4.6% and 4.8% across the U.S. and EUR loan indexes maintained by LCD, respectively.

Due to the high volumes of downgrades on the loan issuers during this time, 'CCC' buckets for both U.S. and EUR CLOs increased sharply, while junior overcollateralization (O/C) cushions declined sharply, more so for U.S. CLOs.

Given the differences in the CLO structure and portfolios across the two regions, the impact to our ratings on CLO notes were notably different, as there were more downgrades across U.S. CLO ratings in 2020.

By 2021, several credit metrics of outstanding CLOs across both regions had improved to pre-pandemic levels, due to an extended period of positive corporate rating actions and high volumes of CLO new issuance activity; though by mid-2023, CLOs from both regions continue to have elevated levels of 'B-' exposure.

## Interactive Version | Compare U.S. And European CLOs Yourself

## U.S. And European BSL CLOs: A Comparative Overview (2024 update) **Click here to explore** Primary analytical Content visualization Rebecca Mun, European CLOs Daniel Hu, U.S. CLOs Deegant Pandya rebecca.mun@spglobal.com daniel.hu@spglobal.com deegant.pandya@spglobal.com S&P Global Ratings

## Structure

Differences In Credit Enhancement Levels

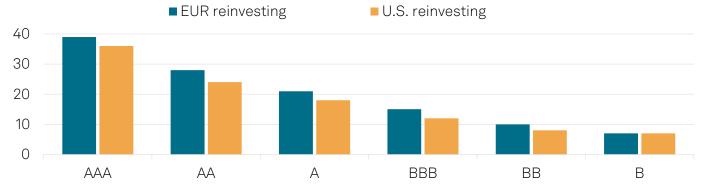




## Structure | Subordination

European CLOs have higher subordination

Subordination at closing across rated reinvesting CLOs (%)



Typical O/C and trigger values for outstanding reinvesting transactions (%)\*

		AAA/AA	А	BBB	BB	В
	O/C ratio	138.89	126.58	117.65	111.11	107.53
EUR	O/C trigger	129.89	121.21	111.30	106.11	103.53
	Cushion	9.00	5.37	6.35	5.00	4.06
	0/C ratio	131.58	121.95	113.64	108.70	106.95
U.S.	0/C trigger	121.58	113.95	107.64	103.70	103.39
	Cushion	10.00	8.00	6.00	5.00	3.56

Data as of May 1, 2024. O/C--Overcollateralization. Source: S&P Global Ratings.

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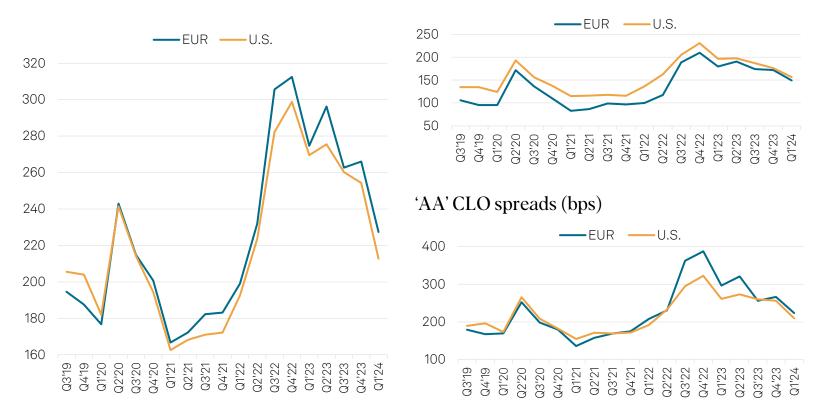
- The typical EUR CLO offers higher credit enhancement at the 'AAA' tranche level at 38%, vs. 36% for a typical U.S. CLO.
- Similarly, O/C test triggers are set higher for EUR CLOs across each rating category.
- The difference in the levels of credit enhancement and structural protections reflects the difference in portfolio characteristics of EUR and U.S. CLO portfolios.
- A larger proportion of EUR transactions have a 'B-' rated CLO tranche.

## Structure | Liability Spreads

Spreads are narrowing for both U.S. and EUR CLOs but still not back to pre-pandemic levels.

Weighted average cost of capital (bps)

'AAA' CLO spreads (bps)



• The weighted average cost of capital (WACC) for both EUR and U.S. CLOs has been increasing from first-quarter 2021 to an all-time high in fourth-quarter 2022, reflecting difficult arbitrage conditions. Since then, WACC has declined although still not back to pre-pandemic levels.

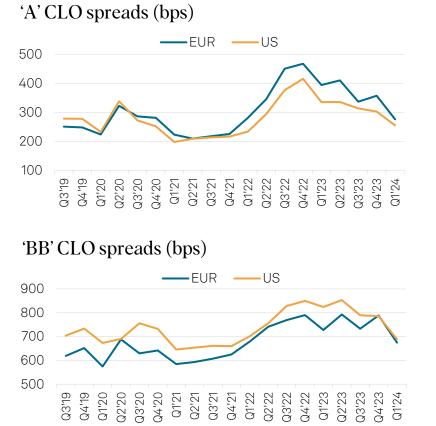
• 'AAA' U.S. CLO spreads have been higher than EUR CLOs, with the spread differential starting to tighten from mid-2023 into 2024.

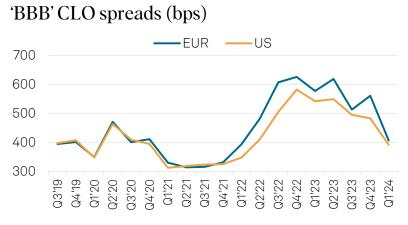
 'AA' U.S. CLO spreads have historically been slightly higher than 'AA' EUR CLO spreads although this reversed in Q3 2022 with the widening of 'AA' EUR CLO spreads following the U.K. Liability-Driven Investment (LDI) sell-off of Sept. 2022. The basis has tightened considerably although 'AA' EUR CLO spreads remain higher.

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Bps--Basis points. Note: To learn more about the impact of the U.K. Liquidity Crisis of Sept. 2022, see "Corporate Defined Benefit Pension Schemes: U.K. Liquidity Crisis Masks A Positive Global Trend Thanks To Higher Discount Rates," published Nov. 14, 2022. Source: Leveraged Commentary & Data (LCD).

## Structure | Liability Spreads (Cont.)





'B' CLO spreads (bps)



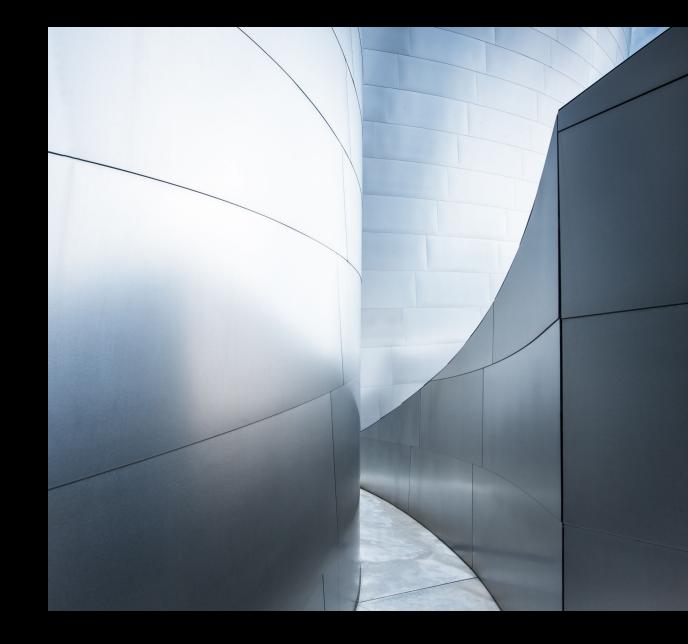
- Spreads for EUR 'A' and 'BBB' tranches widened in 2022 but have considerably tightened relative to U.S. CLO tranches since the LDI sell-off.
- U.S. 'BB' CLO spreads have historically been wider than EUR 'BB' CLO spreads although the spread differential has tightened; we note that 'BB' CLO notes are generally sold with a discount.
- Only a small proportion of U.S. CLOs have recently issued 'B' tranches. 'B' EUR CLO spreads peaked at the end of 2022 and moved below double-digit figures from third-quarter 2023.

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Bps--Basis points. Source: Leveraged Commentary & Data (LCD).

## Collateral

Reflects The Differences Between The European And U.S. Leveraged Loan Markets

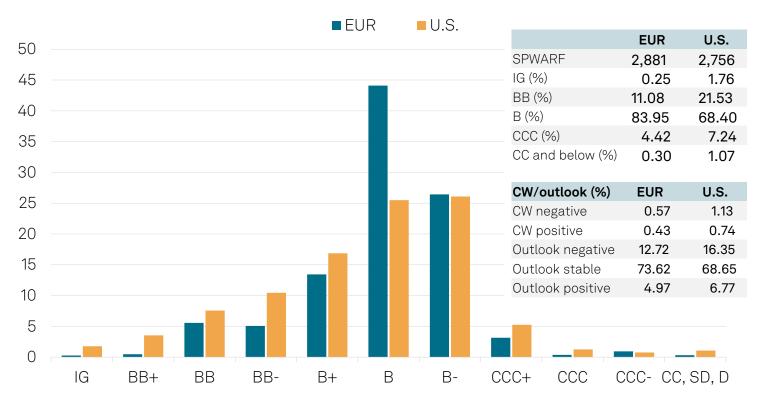




## Collateral | Credit Quality

U.S. CLOs have higher 'CCC' and below category exposures, while EUR CLOs have more 'B'.

#### CLO asset rating distribution (%)



Data as of May 1, 2024. SPWARF--S&P Global Ratings weighted average recovery factor. IG--Investment grade. CW—CreditWatch. SD--Selective default. Source: S&P Global Ratings.

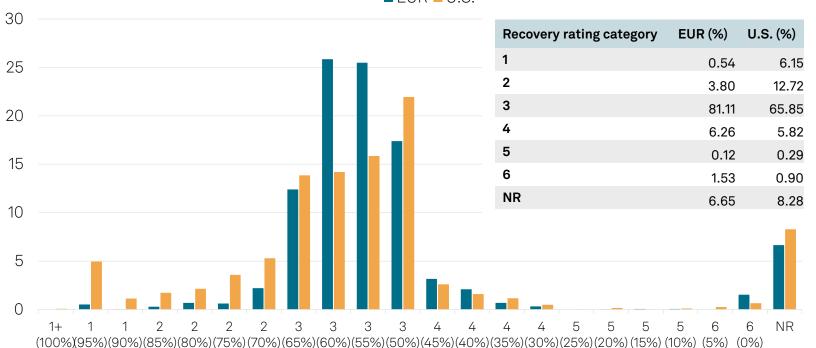
- EUR CLO portfolios have a higher SPWARF compared to U.S. CLO portfolios.
- EUR CLO portfolios are concentrated in the 'B' rating level (44% vs. 25% for U.S. CLOs).
- U.S. CLOs have more exposure to 'BB-' and above (23% vs. 11% in EUR CLOs); and more exposure to 'B-' and below (34% vs. 31% in EUR CLOs).
- Both EUR and U.S. CLOs has 26% exposure to assets in the 'B-' rating level.
- U.S. CLOs have a higher concentration of asset ratings in the 'CCC' and below category (8.3% vs. 4.7% in EUR CLOs).
- U.S. CLOs have higher exposure to assets with a negative outlook (16.3% vs. 12.7% in EUR CLOs).
- Assets on CreditWatch negative are relatively low in both U.S. and Europe.

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## Collateral | Recovery

U.S. CLOs have higher recoveries compared to EUR CLOs.

CLO loan recovery rating distribution (%)



#### EUR U.S.

- A large proportion of loans (~92%) in both EUR and U.S. CLOs have assigned S&P Global Ratings' recovery ratings
- Most of the loans in both markets are in the '3' recovery rating category; EUR CLOs have greater exposure (81% vs. 66% for U.S. CLOs).
- U.S. CLOs have a larger proportion of assets with a recovery rating of '1' and '2' (19% vs. 4% for EUR CLOs).

Data as of May 1, 2024. NR--Not rated. Source: S&P Global Ratings.

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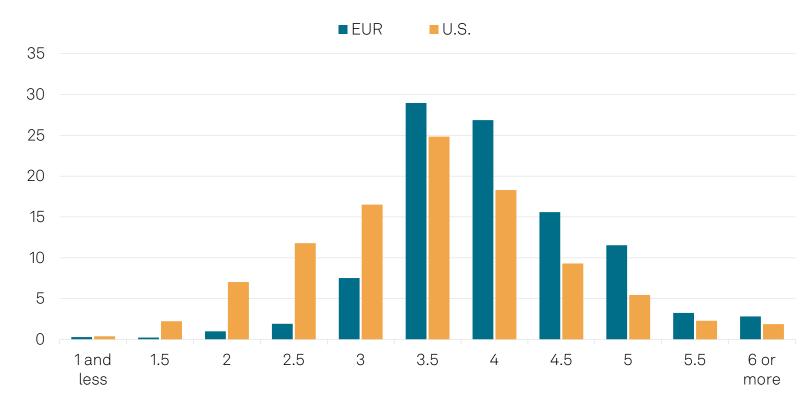
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## Collateral | Spread

EUR CLOs have higher spread.

#### CLO asset spread distribution (%)



- EUR CLOs have more exposure to floating-rate assets that offer higher spreads.
- 21% of U.S. CLO floating-rate exposures offer spreads of less than 3%, vs. 3% in EUR CLOs.
- Over 60% of EUR CLO floatingrate exposures offer spreads of 4% and greater, vs. 37% in U.S. CLOs.

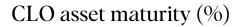
Data as of May 1, 2024. Source: S&P Global Ratings.

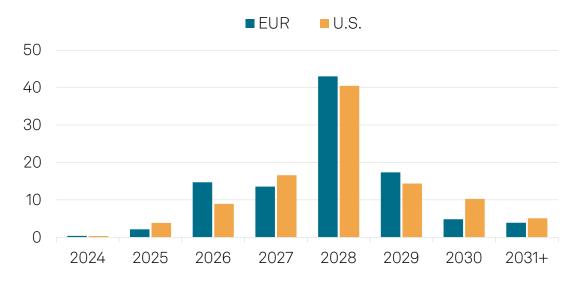
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## Collateral | Maturity

#### Both EUR and U.S. CLO portfolios have maturity walls in 2028.

- Assets maturing in 2024 and 2025 remain limited for both EUR and U.S. CLOs; these exposures are from issuers with significantly lower credit quality (a large majority of the 2024 maturities are rated 'CCC+' and below for both EUR and U.S. CLOs).
- For both EUR and U.S. CLOs, most of the assets' maturities (> 40%) are concentrated in 2028.
- EUR CLOs face more refinancing pressure in 2026, with 15% maturing in 2026, compared to 9% in U.S. CLOs.





13.69	10.91	11.30					
	10.91	11 20					
1.91		11.30	22.49	7.67	8.60	14.50	21.17
	9.49	13.44	2.65	10.19	24.92	29.31	19.19
3.23	33.22	35.12	36.00	50.19	42.68	45.59	53.54
10.52	18.58	32.39	32.48	29.79	18.80	10.47	5.76
64.95	20.91	7.43	5.93	2.15	5.00	0.12	0.02
5.70	6.88	0.33	0.45	0.01	0.01	0.01	0.32
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1.74	15.30	21.45	19.16	17.18	25.72	49.18	36.82
0.16	9.09	17.61	10.30	18.78	19.45	16.82	21.23
14.93	21.82	10.52	25.10	27.71	27.19	26.36	32.10
12.86	22.92	33.80	35.64	28.82	22.88	7.33	9.78
54.44	24.51	15.04	8.93	6.50	4.25	0.29	0.07
15.87	6.35	1.57	0.86	1.02	0.52	0.01	0.01
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	10.52 64.95 5.70 <b>100.0</b> 1.74 0.16 14.93 12.86 54.44 15.87	3.23 33.22   10.52 18.58   64.95 20.91   5.70 6.88   100.0 100.0   1.74 15.30   0.16 9.09   14.93 21.82   12.86 22.92   54.44 24.51   15.87 6.35   100.0 100.0	3.23 33.22 35.12   10.52 18.58 32.39   64.95 20.91 7.43   5.70 6.88 0.33   100.0 100.0 100.0   10.74 15.30 21.45   0.16 9.09 17.61   14.93 21.82 10.52   12.86 22.92 33.80   54.44 24.51 15.04   15.87 6.35 1.57   100.0 100.0 100.0	3.23 33.22 35.12 36.00   10.52 18.58 32.39 32.48   64.95 20.91 7.43 5.93   5.70 6.88 0.33 0.45   10.00 100.0 100.0 100.0   10.74 15.30 21.45 19.16   0.16 9.09 17.61 10.30   14.93 21.82 10.52 25.10   12.86 22.92 33.80 35.64   54.44 24.51 15.04 8.93   15.87 6.35 1.57 0.86   100.0 100.0 100.0 100.0	3.23 33.22 35.12 36.00 50.19   10.52 18.58 32.39 32.48 29.79   64.95 20.91 7.43 5.93 2.15   5.70 6.88 0.33 0.45 0.01   100.0 100.0 100.0 100.0 100.0   101 100.0 100.0 100.0 100.0   100.0 100.0 100.0 100.0 100.0   100.0 100.0 100.0 100.0 100.0   1.74 15.30 21.45 19.16 17.18   0.16 9.09 17.61 10.30 18.78   14.93 21.82 10.52 25.10 27.71   12.86 22.92 33.80 35.64 28.82   54.44 24.51 15.04 8.93 6.50   15.87 6.35 1.57 0.86 1.02	3.23 33.22 35.12 36.00 50.19 42.68   10.52 18.58 32.39 32.48 29.79 18.80   64.95 20.91 7.43 5.93 2.15 5.00   5.70 6.88 0.33 0.45 0.01 0.01   100.0 100.0 100.0 100.0 100.0 100.0   1.74 15.30 21.45 19.16 17.18 25.72   0.16 9.09 17.61 10.30 18.78 19.45   14.93 21.82 10.52 25.10 27.71 27.19   12.86 22.92 33.80 35.64 28.82 22.88   54.44 24.51 15.04 8.93 6.50 4.25   15.87 6.35 1.57 0.86 1.02 0.52   100.0 100.0 100.0 100.0 100.0	3.23 33.22 35.12 36.00 50.19 42.68 45.59   10.52 18.58 32.39 32.48 29.79 18.80 10.47   64.95 20.91 7.43 5.93 2.15 5.00 0.12   5.70 6.88 0.33 0.45 0.01 0.01 0.01   100.0 100.0 100.0 100.0 100.0 100.0 100.0   1.74 15.30 21.45 19.16 17.18 25.72 49.18   0.16 9.09 17.61 10.30 18.78 19.45 16.82   14.93 21.82 10.52 25.10 27.71 27.19 26.36   12.86 22.92 33.80 35.64 28.82 22.88 7.33   54.44 24.51 15.04 8.93 6.50 4.25 0.29   15.87 6.35 1.57 0.86 1.02 0.52 0.01   100.0 100.0 100.0 100.0 100.0 100.0

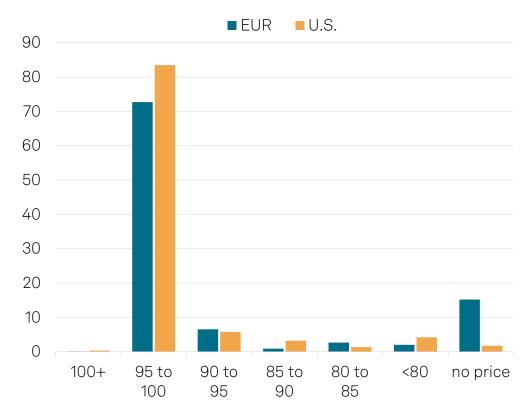
Data as of May 1, 2024. Source: S&P Global Ratings

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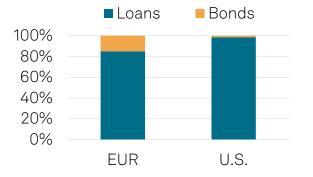
## **Collateral | Other Characteristics**

EUR And U.S. CLO asset prices are similar. EUR CLOs have more bonds.

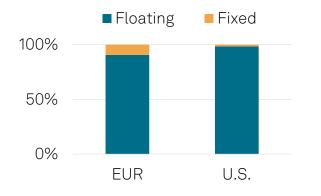
CLO asset price distribution (%)



#### Bond and loan distribution



#### Fixed and floating distribution



- Most of the assets in both EUR and U.S. CLOs have prices in the 95% to 100% range (72.7% in EUR vs 83.5% in U.S.).
- U.S. CLOs have a higher proportion of assets with a price below 80% (4.2% vs. 2% in EUR).
- Bond assets account for a higher proportion in EUR CLOs, at 15%, compared to U.S. CLOs, at 1.6%. Similarly for the float-fixed mix, EUR CLOs have about 9.3% in fixed-rate assets, compared to 1.6% for U.S. CLOs.
- To mitigate a potential mismatch in payments, some EUR and U.S. CLOs issue fixed-rate CLO tranches and some EUR CLOs enter into interest rate hedges.

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Data as of May 1, 2024. Source: S&P Global Ratings.

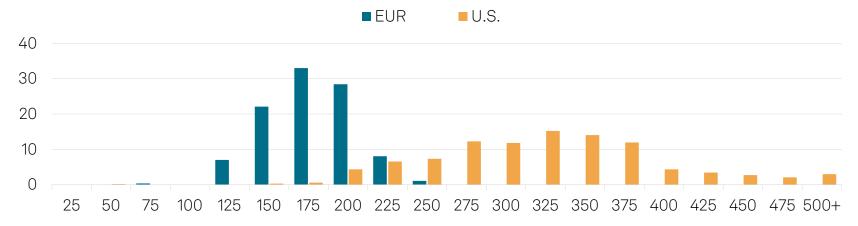
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## **Collateral** | **Diversity**

There is greater diversity in U.S. CLOs compared to EUR CLOs.

Number of issuers across reinvesting transactions (%)



		Average obligor count (no.)	Obligor diversity measure	Industry diversity measure	Regional diversity measure
Doinvooting	Europe	165	130.43	20.98	1.27
Reinvesting	U.S.	313	225.43	23.13	1.19
Amentining	Europe	128	97.97	20.94	1.25
Amortizing	U.S.	263	177.52	21.68	1.18
A.I.	Europe	158	123.67	20.97	1.27
All	U.S.	298	210.68	22.68	1.19

- Reinvesting U.S. CLO portfolios have a larger obligor count (average about 313) relative to EUR CLOs (average about 165).
- Industry diversity is slightly higher across U.S. CLO portfolios.
- EUR CLO portfolios have a broader regional/ country diversity relative to U.S. CLOs (which are mostly concentrated across U.S. and Canadian issuers).

Data as of May 1, 2024. Source: S&P Global Ratings.

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## **Collateral | Sector Exposure**

CLO asset sector (EUR ranked) (%)

Industrials is the largest GICs sector across both EUR and U.S. CLOs, with a different mix of sectors following.

#### **FUR FUR** U.S. Industrials Industrials Information Technology Consumer Discretionary Consumer Discretionary Health Care Health Care Information Technology Communication Services Communication Services Financials Materials Materials Consumer Staples **Consumer Staples** Financials Energy Real Estate Utilities Energy Project Finance Project Finance Real Estate Utilities 0 2 4 6 8 10 12 14 16 18 20 22 0 2

#### CLO asset sector (U.S. ranked) (%)

EUR U.S.

- Industrials account for the largest sector exposure for both EUR and U.S. CLOs.
- U.S. CLOs are more exposed to the information technology sector (18% vs. 12% EUR CLOs).
- EUR CLOs have greater exposure to the healthcare (16% vs. 12% in U.S.) and discretionary consumer sectors (18% vs. 14% in U.S.).
- U.S. CLOs have more exposure to issuers within the utilities, energy, and Project Finance sectors.

Data as of May 1, 2024. GIC--Guaranteed industry classification. Source: S&P Global Ratings.

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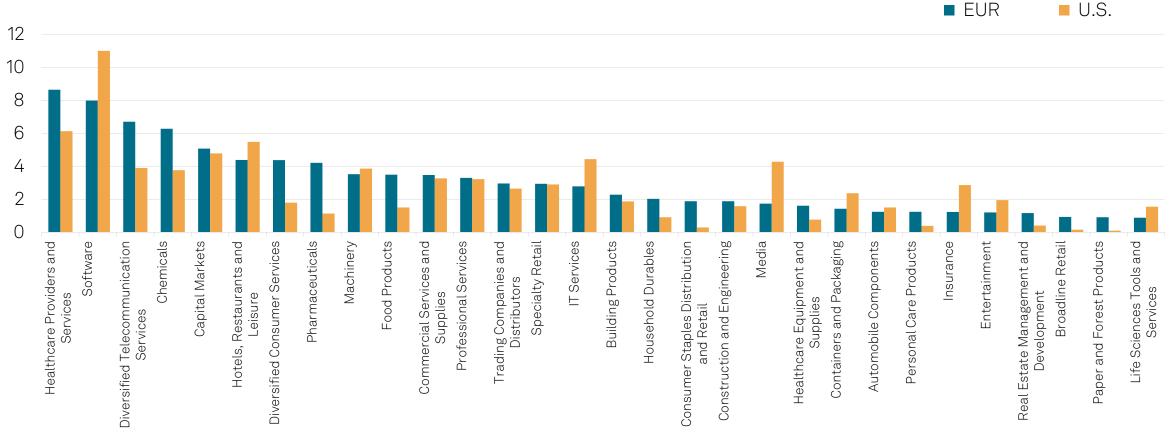
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6 8 10 12 14 16 18 20 22

## Collateral | Industry Exposure

Top 30 GICs industries (EUR ranked) (%)



Data as of May 1, 2024. GIC--Guaranteed industry classification. Source: S&P Global Ratings.

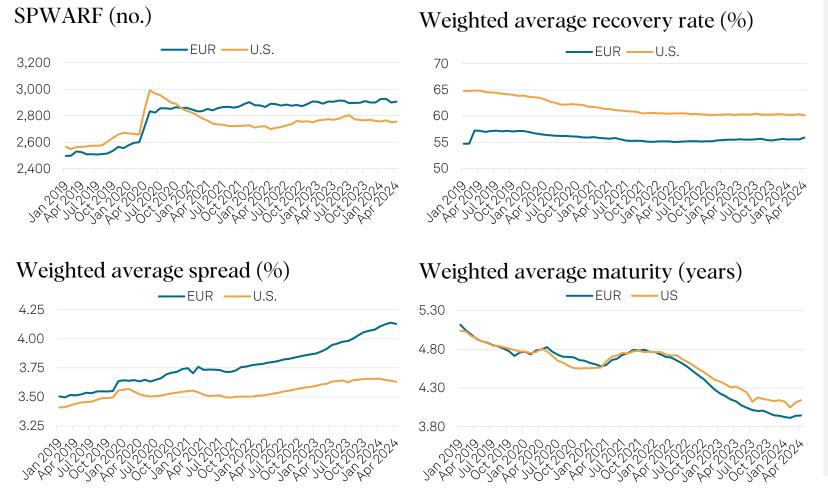
## Performance

Similar Trends With Some Differences





## Performance | Evolution Since 2019



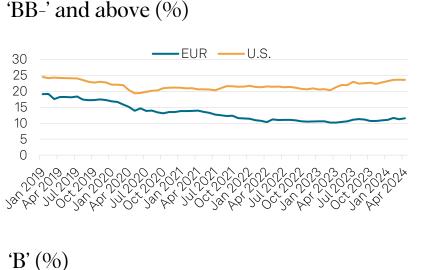
- The S&P Global Ratings' weighted average recovery factor (SPWARF) of U.S. CLO exposures increased sharply during the pandemic in 2020 and has declined notably due to high levels of new CLO issuance in 2021; after increasing in 2020, the SPWARF of EUR CLO exposures have remained stable, albeit elevated since.
- The weighted averaged recovery rates (WARRs) of U.S. and EUR transactions had been declining since 2019, before holding steady since mid-2021.
- The weighted average spreads (WAS) have increased for both regions, especially since 2022; they increased more so for the EUR portfolios, which are 0.5% higher than U.S. portfolios..
- The weighted average maturities (WAMs) had gradually declined since 2019, before experiencing a small increase in 2021, a year of high new CLO issuance and reset volumes. They have then been declining notably since 2022. The proportion of CLO transactions that are outside their reinvestment periods have increased recently.

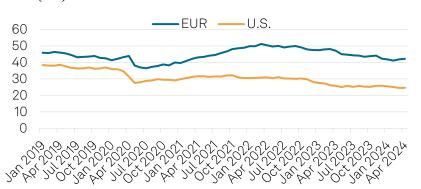
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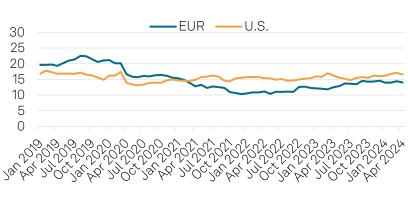
#### Source: S&P Global Ratings.

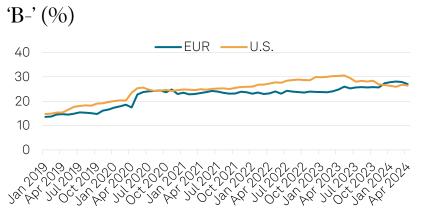
## Performance | Credit Rating Distribution Through Time ('B-' And Above)

'B+' (%)







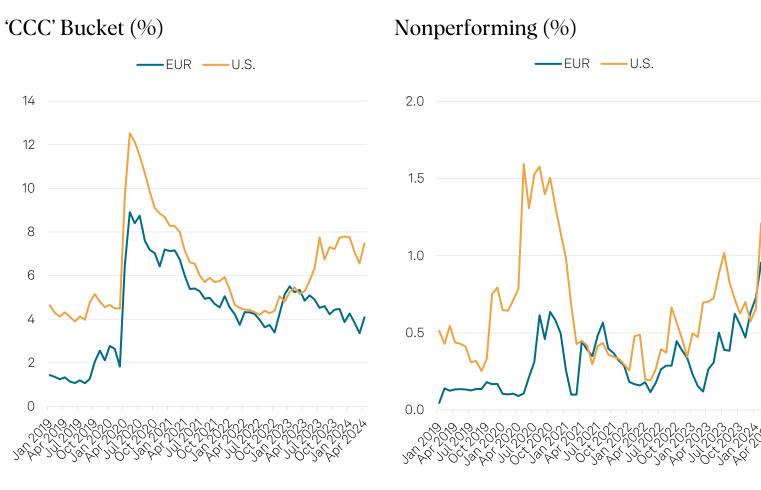


- U.S. CLOs have more exposure to loans from 'BB-' and above issuers compared to EUR CLOs where the exposure has been declining since 2019.
- EUR CLOs have more exposure to loans from 'B' rated issuers compared to U.S. CLOs.
- 'B-' exposures in both EUR and U.S. CLOs have nearly doubled since 2019. 'B-' exposures in U.S. CLOs have gradually increased since the pandemic before starting to decline since the middle of 2023.

Source: S&P Global Ratings.

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## Performance | Credit Rating Distribution Through Time ('CCC+' And Below)

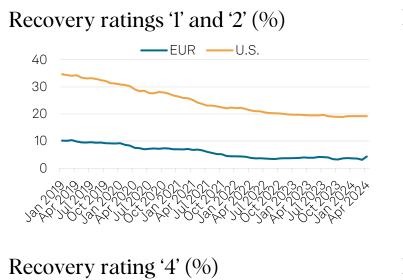


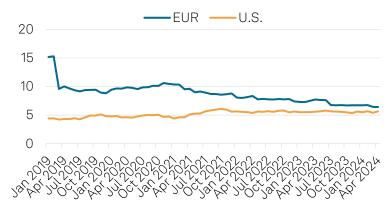
- By early 2019, U.S. CLOs had higher exposures to loans from issuers rated 'CCC+' and below in 2019 (partly due to the energy and retail slowdown in 2016-2017).
- The 'CCC' bucket rose to 12.5% in U.S. CLOs and 8.9% in EUR CLOs at the height of the pandemic before coming down sharply in the months after.
- Since the start of 2023, 'CCC' buckets across U.S. CLOs have increased to around the 7.5% 'CCC' threshold whereas 'CCC' buckets for EUR CLOs have been on the decline albeit this has picked up since March 2024 and stands at 4%.
- Similarly, nonperforming loans in U.S. CLOs increased to 1.6% in second-quarter to thirdquarter 2020. After a decline in 2021, there has been some volatility in nonperforming exposures as some widely held CLO obligors saw their ratings lowered to and raised from 'SD'.

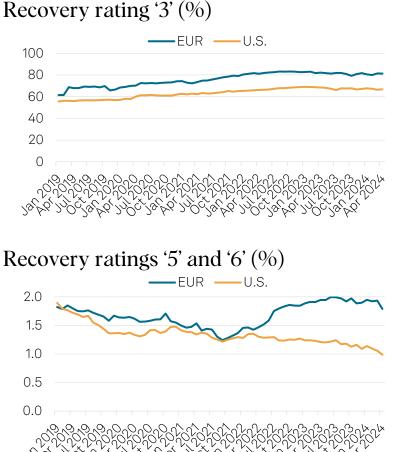
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Source: S&P Global Ratings.

## Performance | Recovery Rating Distribution Through Time





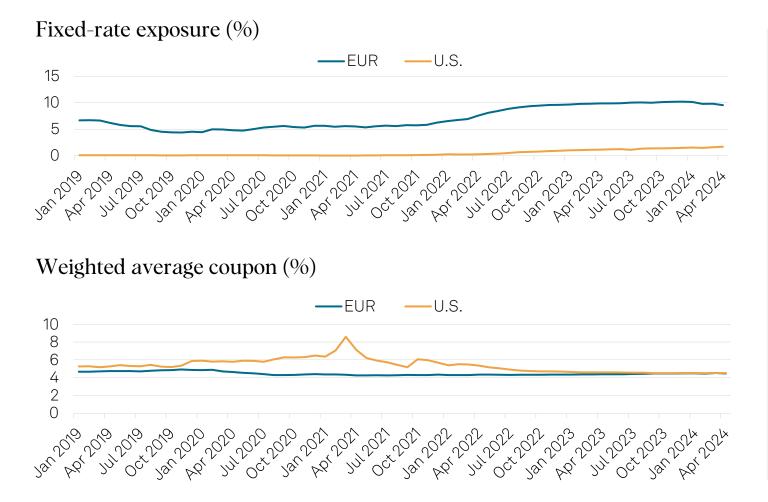


- Both U.S. and EUR CLO portfolios have experienced a gradual decline in their distribution of recovery ratings since 2019.
- U.S. CLOs have a higher proportion of loans with a recovery rating of '1' and '2'.
- EUR CLO loans are mostly concentrated in the recovery rating of '3', which have increased to and hovered around 81% since 2022 from 61.6% in 2019. U.S. CLOs saw a smaller increase, to 66.8% from 55.6%.
- The exposure to loans with a recovery rating of '4' have been declining in EUR CLOs and stable in U.S. CLOs.
- Exposure to loans with a recovery rating of '5' and '6' (which have the lowest recoveries) remain low, at 2% for EUR CLOs and 1% for U.S. CLOs.

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#### Source: S&P Global Ratings.

## Performance | Fixed-Rate Exposure And Coupon



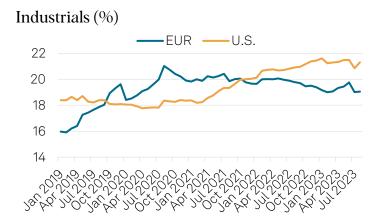
Source: S&P Global Ratings.

- EUR transactions have historically had more exposure to fixed-rate assets at around 5%, whereas U.S. transactions have had near zero exposure to fixed-rate assets until mid-2022.
- Both regions experienced an increase in fixedrate exposure in 2022, as U.S. transactions just crossed the 1.5% mark in early 2024 and EUR transactions have remained around 10%.
- The weighted average coupon (WAC) across both the EUR and U.S. CLOs have converged to around 4.5% by early 2024.
- The WAC of U.S. CLO exposures has declined in 2022, as U.S. CLO managers purchased fixed-rate bonds from higher-rated issuers. The peak in the WAC of over 8.5% for U.S. transactions in early 2021 was not a trend, as there were near zero exposures back then.

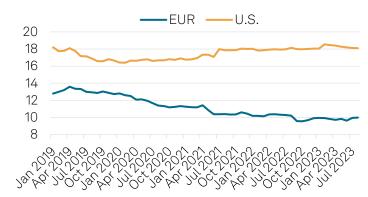


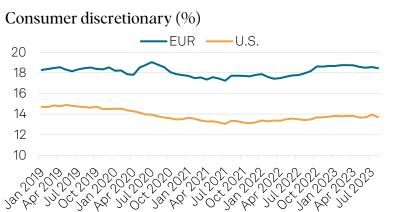
## **Performance** | Sectoral Composition

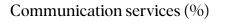
EUR CLOs increase exposure to healthcare

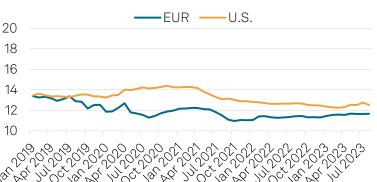


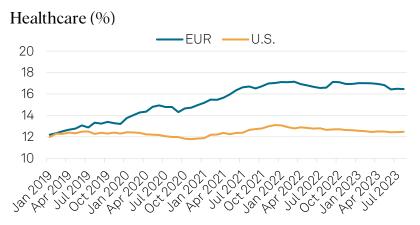
Information technology (%)



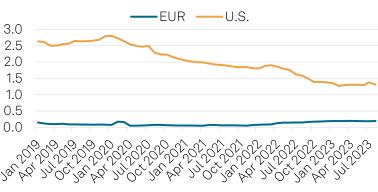












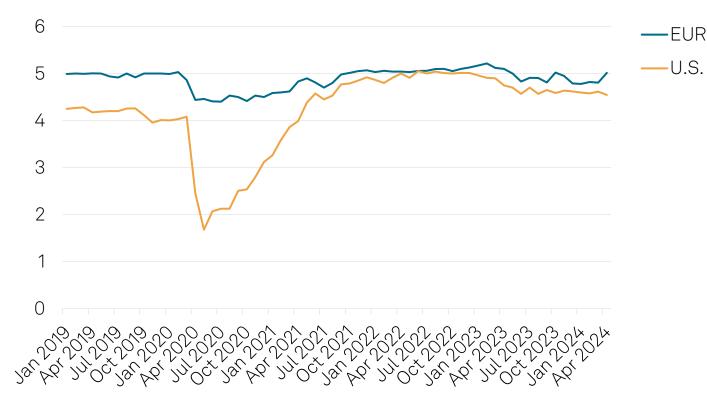
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Source: S&P Global Ratings.

## Performance | 'BB' O/C Cushion

EUR CLOs have higher junior O/C cushions.

Median 'BB' O/C cushion across reinvesting BSL CLOs (%)



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

- As noted in prior slides, the difference in 'BB' subordination between EUR and U.S. CLOs is 2% (10% vs. 8%, respectively).
- The difference between the EUR and U.S. 'BB' O/C triggers is about 2% (the typical values are about 106% vs 104%, respectively).
- During the pandemic, U.S. CLOs saw a 2.4% decline in their 'BB' cushions between March and May 2020, compared to a decline of 0.4% for EUR CLOs during the same time.
- Since 2022, the 'BB' OC cushion across reinvesting U.S. CLOs has declined from about 5% to about 4.5% largely driven by default haircuts.



## **Performance** | **CLO Tranche Defaults**

Lifetime performance

#### CLO default summary by original rating (count)

	CI	-0 1.0			CLO 2.0					
	<b>Original ratings</b>	Default	Currently rated	Original ratings	Default	Currently rated				
Global										
AAA	2,021	0	0	4,833	0	2,315				
AA	843	1	0	4,120	0	2,187				
A	1,039	5	0	3,251	0	1,735				
BBB	1,079	13	0	3,009	0	1,713				
BB	776	39	0	2,509	9	1,453				
В	39	4	0	877	11	547				
Total	5,797	62	0	18,599	20	9,950				
U.S.										
AAA	1,540	0	0	3,979	0	1,817				
AA	616	1	0	3,202	0	1,537				
A	790	5	0	2,656	0	1,327				
BBB	783	9	0	2,442	0	1,321				
BB	565	22	0	1,981	9	1,071				
В	28	3	0	403	11	180				
Total	4,322	40	0	14,663	20	7,253				
Europe										
AAA	481	0	0	854	0	498				
AA	227	0	0	918	0	650				
A	249	0	0	595	0	408				
BBB	296	4	0	567	0	392				
BB	211	17	0	528	0	382				
В	11	1	0	474	0	367				
Total	1,475	22	0	3,936	0	2,697				

Ratings

- S&P Global Ratings has rated over 24,000 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 recent COVID-19-driven downturn in 2020.
- Across the 5,797 tranches rated across CLO 1.0s (transactions originated in 2009 or prior), only 62 tranches have defaulted.
- Across the 18.599 tranches rated across CLO 2.0 transactions (transactions originated in 2010 and after), to date, 20 tranches across early vintage U.S. CLO 2.0s have defaulted. There has been no defaults yet within EUR CLO 2.0s.

## Performance | CLO Rating Actions In Second-Half 2020

Downgrades during the 2020 pandemic

#### Actions taken in second-half 2020

Rating	Outstanding rating as of July 2020		Affirmation (off Watch negative) or no DG	One-notch downgrade		Three-notch downgrade		Five-notch downgrade	Total downgrades
U.S. (count o	of CLO ratings)								
AAA	904	-	904	-	-	-	-	-	-
AA	780	-	777	3	-	-	-	-	3
A	675	15	660	10	1	3	1	-	15
BBB	655	94	572	62	13	5	3	-	83
BB	577	289	324	145	46	40	14	8	253
В	181	174	72	78	22	9	-	-	109
CCC	13	11	5	4	4	-	-	-	8
CC	1	-	1	-	-	-	-	-	-
Grand total	3,786	583	3,315	302	86	57	18	8	471
EUR (count o	of CLO ratings)								
AAA	214	-	214	-	-	-	-	-	-
AA	242	-	242	-	-	-	-	-	-
A	169	-	169	-	-	-	-	-	-
BBB	147	4	144	3	-	-	-	-	3
BB	144	18	124	17	3	-	-	-	20
В	134	3	130	4	-	-	-	-	4
CCC	-	-	-	-	-	-	-	-	-
CC	-	-	-	-	-	-	-	-	-
Grand total	1,050	25	1,023	24	3	-	-	-	27

DG--Downgrade. Source: S&P Global Ratings.

- 583 U.S. CLO tranches and 25 EUR CLO tranches had their ratings on CreditWatch negative as of July 2020.
- 471 U.S. CLO tranches and 27 EUR CLO tranches were downgraded in the second half of 2020.
- Most of the rating downgrades were either in the 'BB' rating category or within a one-notch downgrade.
- No 'AAA' CLO ratings were placed on CreditWatch negative or downgraded in both regions.
- The rating actions taken for EUR CLOs only affected the 'BBB', 'BB', and 'B' rating categories, whereas those for U.S. CLOs affected the other rating categories as well.

## CLO Rating Actions | No CLO 'AAA' Tranche Ratings Lowered Since 2012

- Upgrades have mostly outnumbered downgrades in recent years, driven mostly by the deleveraging of CLOs exiting their reinvestment period.
- No 'AAA' rated CLO tranche has been downgraded since 2012, and that was for a CLO 1.0 transaction. No CLO 'AAA' tranche has ever defaulted.
- Despite recent corporate rating downgrades, our outlook for CLO ratings remains stable, especially for more senior, higher-rated CLO tranches, given the structural protections built into CLOs and rating cushions for most tranches.

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

		U.S. BS	L CLO UG						EUR BS	L CLO UG			
						Total							Total
Orig. rating category	2020	2021	2022	2023	2024Q1	(since 2020)	Orig. rating category	2020	2021	2022	2023	2024Q1	(since 2020)
AAA						0	AAA						0
AA	5	39	14	29	8	95	AA	4		14	35	22	75
A	6	47	18	30	10	111	A	4	2	8	24	13	51
BBB	1	46	20	18	8	93	BBB	1	3	7	22	12	45
BB		73	24	7	1	105	BB		2	4	10	4	20
В	1	45	5	1		52	В		1	1	3	1	6
Grand total	14	252	81	85	27	459	Grand total	9	8	34	94	52	197
		US BSI	CLO DG						EUR BS	L CLO DG			
						Total							Total
Orig. rating category	2020	2021	2022	2023	2024Q1	(since 2020)	Orig. rating category	2020	2021	2022	2023	2024Q1	(since 2020)
AAA						0	AAA						0
AA	3					3	AA						0
A	11					11	A						0
BBB	91	5		2		98	BBB	3		1			4
BB	282	7	5	31	10	335	BB	20					20
В	105	5	5	15	5	135	В	4				1	5
Grand total	493	17	10	48	15	583	Grand total	27	1	1		1	30

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

# **Other Topics**

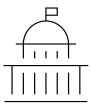
Regulation, ESG, Structures, And Documentation





## **Other Topics**

EUR and U.S. CLOs are converging globally, with some differences



#### Regulation

- EUR CLOs are subject to **risk retention** rules, whereas U.S. CLOs are not (unless EUR investors are targeted). Hence, U.S. CLO investors are mostly U.S.- or Asia-based, whilst investors in EUR CLOs are mostly European and some Asia-based.
- U.S. CLOs are subject to the **Volcker Rule**; hence, they historically have zero bond buckets. However, following rule changes, some U.S. CLOs now allow for a small bucket (e.g., 5%). In both regions, we have seen increasing bond bucket sizes, especially in Europe, where 10-15% is common.



#### ESG

- EUR CLOs are more developed in this area, driven by the regulatory framework and investor demand.
- Negative screening is predominant in U.S. CLOs, with an increasing number of industry exclusions.
- Almost all EUR CLOs have negative screening, with some CLOs also incorporating positive screening ESG language, which include ESG scores that could be included in the collateral quality tests.

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Source: S&P Global Ratings.

## **Other Topics**

EUR and U.S. CLOs are converging globally, with some differences cont.



#### Structural features

- Triple A Loan tranches are becoming more common in both EUR and U.S. CLOs as bank investors benefit from better regulatory capital charge from holding in loan format.
- The widening spread environment in previous years has led to similar structural innovations across EUR and U.S. CLOs such as the junior delayed-draw tranches and turbo features where excess spread is used to pay down junior tranches rather than to equity. The turbo feature is however limited to 'B' tranches in Europe, whereas applicable to 'BBB' and lower tranches in some U.S. CLO transactions.
- Some features unique to U.S./Europe: The applicable margin reset (AMR) feature allowing re-pricing via auction process is limited to the U.S.; EUR CLOs have a bucket for non-EUR denominated assets and the ability to enter into cross-currency hedges.

Source: S&P Global Ratings.

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#### Documentation

- CLO documents in both regions are converging, with a number of similarities.
- Distressed asset flexibility provisions first introduced in U.S. CLOs are now common in EUR CLOs, as CLO docs look to further mitigate the loosening of loan documentation: asset exchanges, workout obligations, and more recently anti-priming provisions.
- Concerns over CLO test management mean that discount (and swapped non-discount) obligations, post-reinvestment period trading requirements, and weighted average life (WAL) test flexibility provisions/maturity amendment language are areas of focus for CLO managers in both regions
- Differences include LIBOR transition language in U.S. CLO docs, which is not applicable to EUR CLOs.

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