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PineBridge® INVESTMENTS

Seeing Beyond the Complexity: An Introduction to Collateralized Loan Obligations

Collateralized loan obligations (CLOs) are robust, opportunity-rich debt instruments that have been around for more than 35 years. And while they're well established, they're also complex enough that even sophisticated investors may hesitate to dig into the details – and end up missing out on their potential benefits.

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CLOs have been gaining wider prominence in markets in recent years, and it's no surprise why: Beyond the fact that the CLO market is now too big to ignore, at $1.29 trillion,[1] the asset class has historically offered a compelling combination of above-average yield and potential appreciation. But for many investors, the basics of how CLOs work, the benefits they can provide, and the risks they pose are wrapped in complexity – which is why they can be misconstrued by the financial media and even some market participants.

Nonetheless, we believe CLOs are attractive investments that are well worth the effort required to understand them.

What is a CLO?

Put simply, a CLO is a portfolio of predominantly leveraged loans that is securitized and managed as a fund. The assets are typically senior secured loans, which benefit from priority of payment over other claimants in the event of an insolvency. Each CLO is structured as a series of tranches that are interest-paying bonds, along with a small portion of equity, which receives excess payments.

CLOs originated in the late 1980s, similar to other types of securitizations, as a way for banks to package leveraged loans together to provide investors with an investment vehicle with varied degrees of risk and return to best suit their investment objectives. The first vintage of "modern" CLOs – which focused on generating income via cash flows – was issued starting in the mid- to late-1990s. Commonly known as "CLO 1.0," this vintage included some high yield bonds, as well as loans, and was the standard CLO structure until the financial crisis struck in 2008.

The next vintage, CLO 2.0, began in 2010 and changed in response to the financial crisis by strengthening credit support and shortening the period in which loan interest and proceeds could be reinvested into additional loans.

The current vintage, CLO 3.0, began in 2014 and aimed to further reduce risk by eliminating high yield bonds and adhering to the Volcker Rule and other new regulations. In 2020, the Volcker Rule was further amended, and high yield bonds were allowed back into CLOs. Currently, few CLOs allow for investments into high yield, and those that do generally limit the exposure to 5%-10%. To compensate for the exposure to high yield, these CLOs have increased levels of subordination to better protect debt tranches.

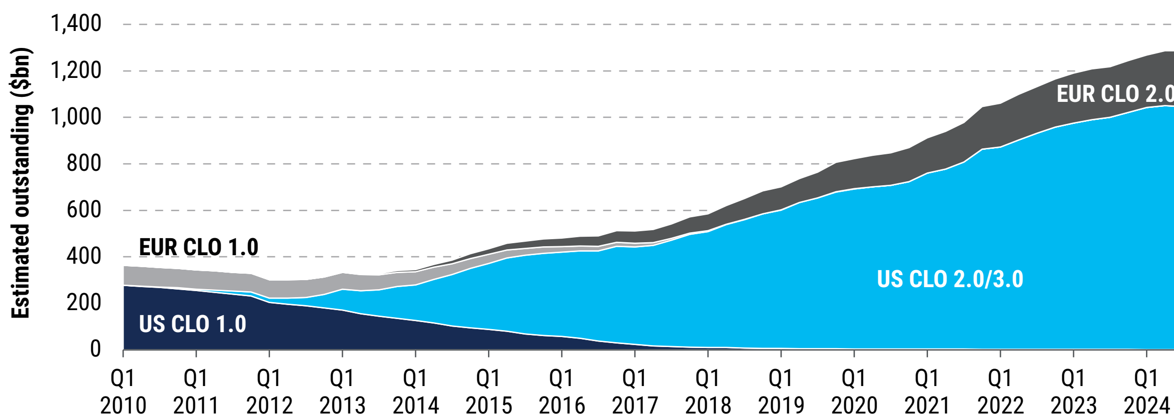
[1] Source: Bank of America Global Research as of 30 September 2024. Includes US and Europe CLOs.

Vintages 2.0 and 3.0 represent the biggest chunk of the market, with over $1 trillion in principal outstanding, while less than 0.1% of the market remains in CLO 1.0 vintages.[2]

The vast majority of CLOs are called "arbitrage CLOs" because they aim to capture the excess spread between the portfolio of leveraged bank loans (assets) and the classes of CLO debt (liabilities), with the equity investors receiving any excess cash flows after the debt investors are paid. The market for arbitrage CLOs is valued at $1.29 trillion globally, with about 81% issued in the US and 19% in Europe.[3]

CLOs Get Better With Age

CLO vintages 2.0 and 3.0 represent nearly all of the market today



Source: Bank of America Global Research as of 30 September 2024.

Leveraged loans: more than just collateral

Leveraged loans are more than simply the underlying collateral for CLOs: They're the fuel that powers CLOs' attractive income streams and the first of several levels of potential risk mitigation built into the CLO structure.

S&P defines leveraged loans as senior secured loans rated BB+ or lower (i.e., below investment grade) or yielding at least 125 basis points above a benchmark interest rate (typically SOFR in the US and Euribor in Europe) and secured by a first or second lien.[4] Several characteristics make leveraged loans particularly suitable for securitizations. They:

- Pay interest on a **consistent monthly or quarterly basis;**
- Trade in a **highly liquid secondary market;**
- Have a **historically high recovery rate** in the event of default; and
- Originate from a **large, diversified group of issuers.**

As of 30 September 2024, the amount of leveraged loans outstanding was $1.39 trillion in the US and €295 billion in Europe.[5]

[2] Source: Bank of America Global Research as of 30 September 2024. $920 billion in broadly syndicated loans and $128 billion in middle market CLOs.
[3] Ibid.
[4] Source: S&P Global Market Intelligence, Leveraged Commentary & Data (LCD): Leveraged Loan Primer, as of 30 September 2021.
[5] Source: LCD, based on the Morningstar LSTA Leveraged Loan Index and Morningstar LSTA European Leveraged Loan Index as of 30 September 2024.

Who issues, manages, and owns CLOs?

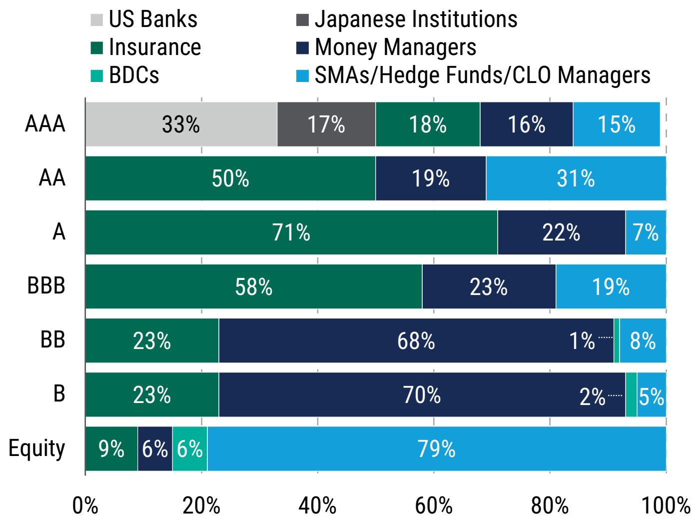
CLOs are issued and managed by asset managers. Of the approximately 225 CLO managers[6] with post-crisis deals under management worldwide, PineBridge has found that about two-thirds are in the US and the remaining third are in Europe.

Ownership of CLOs varies by tranche. The least risky, senior-most tranches are mainly owned by insurance companies (which favor income-producing investments) as well as banks (which need high-quality capital to meet regulatory requirements). The equity tranche is the riskiest, offering potential upside and a degree of control, and appeals to a wider universe of investors.

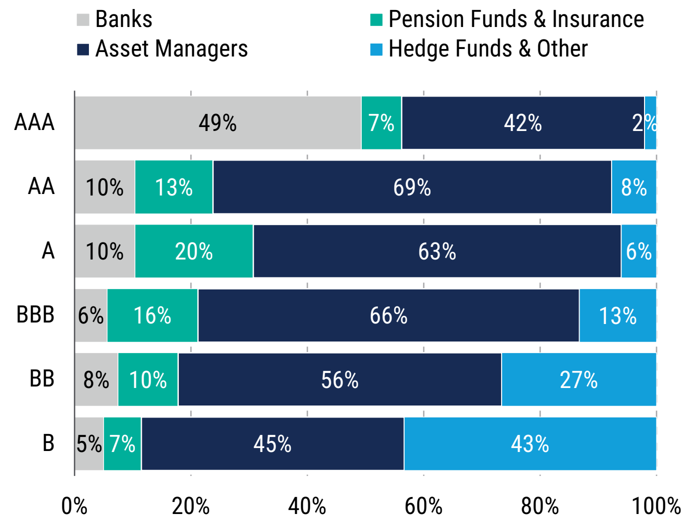
In addition to the traditional investor base of insurers, banks, and money managers (among others), the CLO market has more recently opened to retail investors through a budding ETF market. While ETFs make up only 1%-2% of the total US CLO market, ETFs have ballooned from approximately $2 billion at the start of 2023 to over $14 billion by the middle of 2024, with growth expect to continue.[7]

CLOs Have a Diverse Investor Base

The largest US CLO owners by investor type and tranche^



The largest European CLO owners by investor type and tranche†



Typical Equity Tranche Investors††		
	• Hedge funds • Sovereign wealth funds/family offices • CLO managers • Money managers	• Business development companies • Insurance companies • Credit funds • Risk retention vehicles

For illustrative purposes only. ^Source: BofA Global Research, SNL, Bloomberg, Company filings, S&P LCD, "CLO Alert: Analyzing NAIC scenario results for CLOs: AAA-A: good, BBB: mixed, BB: unfair" as of 17 September 2024. †Source: BofA Global Research, "Year Ahead European SF" as of 27 November 2023. ††Source: Morgan Stanley Research as of 20 September 2021 and Barclays Research as of 22 January 2021.

[6] Source: Intex, PineBridge Investments as of 31 January 2024.
[7] Source: Bank of America newsletter, "CLO Weekly - July Cashflows: Not a Cruel Summer," 26 July 2024.

How CLOs work

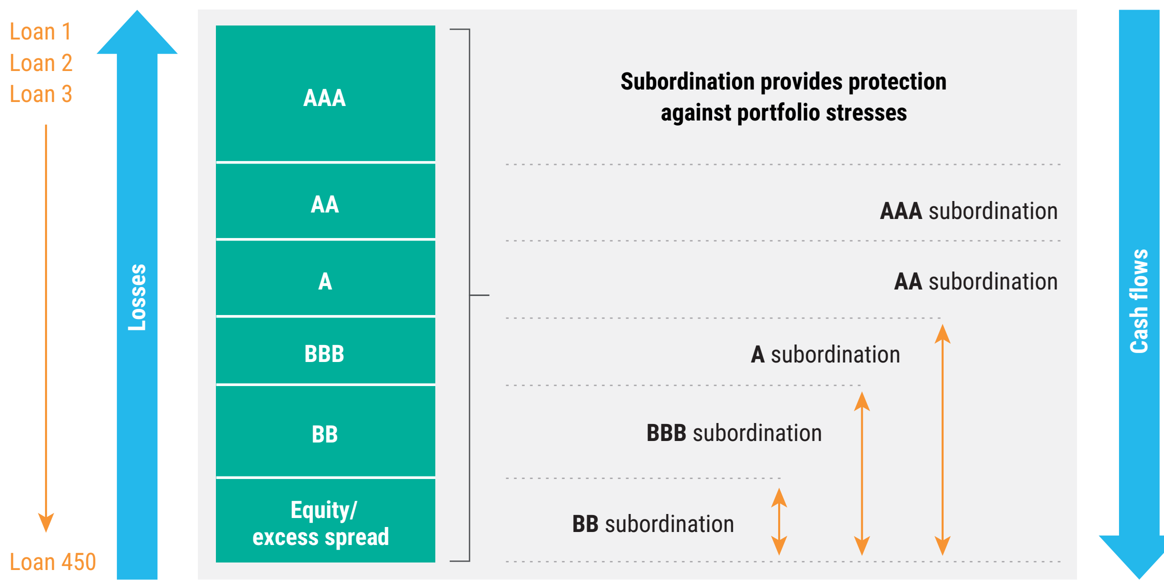
CLOs are complex structures that combine multiple elements with the goal of generating an above-average return via income and capital appreciation. They consist of tranches that hold the underlying loans, which typically account for about 90% of total assets, and a sliver of equity. The tranches are ranked highest to lowest in order of credit quality, asset size, and income stream – and, thus, lowest to highest in order of riskiness.

Although leveraged loans themselves are rated below investment grade, most CLO tranches are rated investment grade, benefiting from diversification, credit enhancements, and subordination of cash flows.

Each CLO has a defined lifecycle in which collateral is purchased, managed, redeemed, and returned to investors. The standard lifecycle includes five stages:

1. **Warehousing (3-6 months):** The manager purchases the initial collateral before the closing date.
2. **Ramp-up (1-6 months):** Following the closing date, the manager purchases the remaining collateral to complete the original portfolio. After the ramp-up is complete, the manager also performs monthly tests to ensure the portfolio's ability to cover its interest and principal payments.
3. **Reinvestment (1-5 years):** Following the ramp-up period, the manager can reinvest all loan proceeds, either purchasing or selling leveraged loans to improve the portfolio's credit quality.
4. **Non-call (first 0.5 to 2 years of reinvestment):** CLO tranche holders earn a per-tranche yield spread specified at closing, after which the majority equity-tranche holder can call or refinance outstanding CLO tranches.
5. **Repayment and deleveraging (1-4 years):** As underlying loans are paid off, the manager pays down the CLO tranches in order of seniority and distributes the remaining proceeds to the equity-tranche holders.

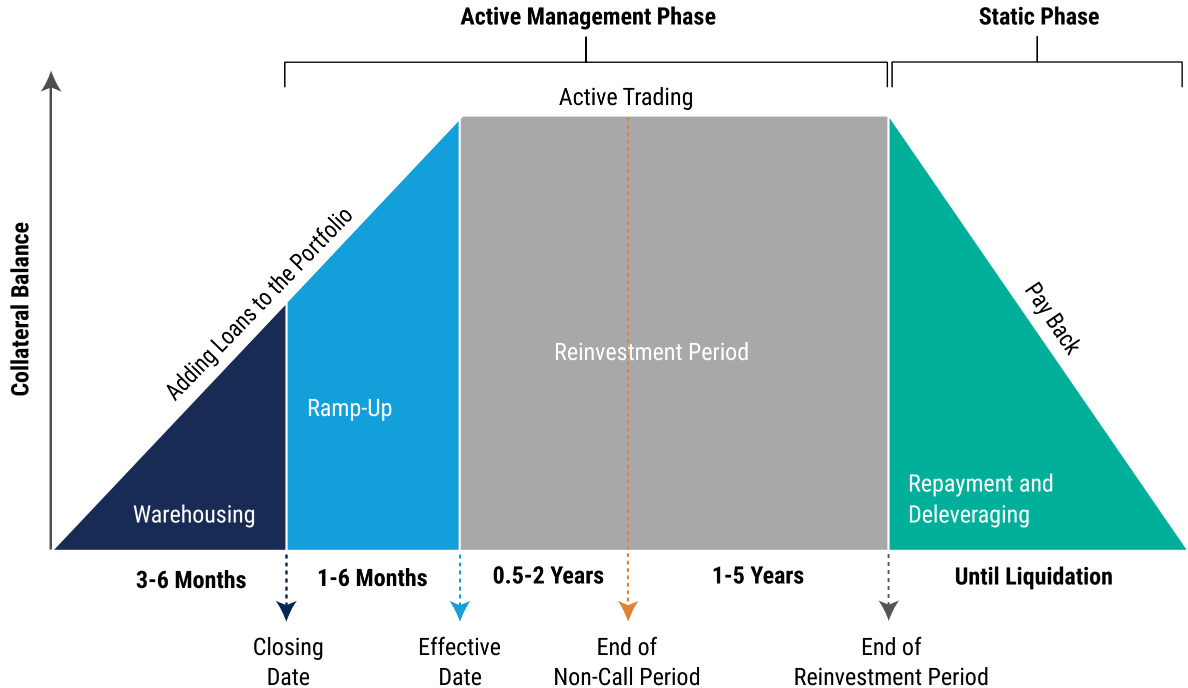
Tranches Allocate Assets, Income, and Risk
Typical CLO tranche structure



Source: Citibank as of 30 September 2021.

CLO Lifecycle

CLOs typically have a final maturity of up to 11-13 years but a shorter expected life due to loan amortization.



Source: VanEck. For illustrative purposes only.

All about the cash flows

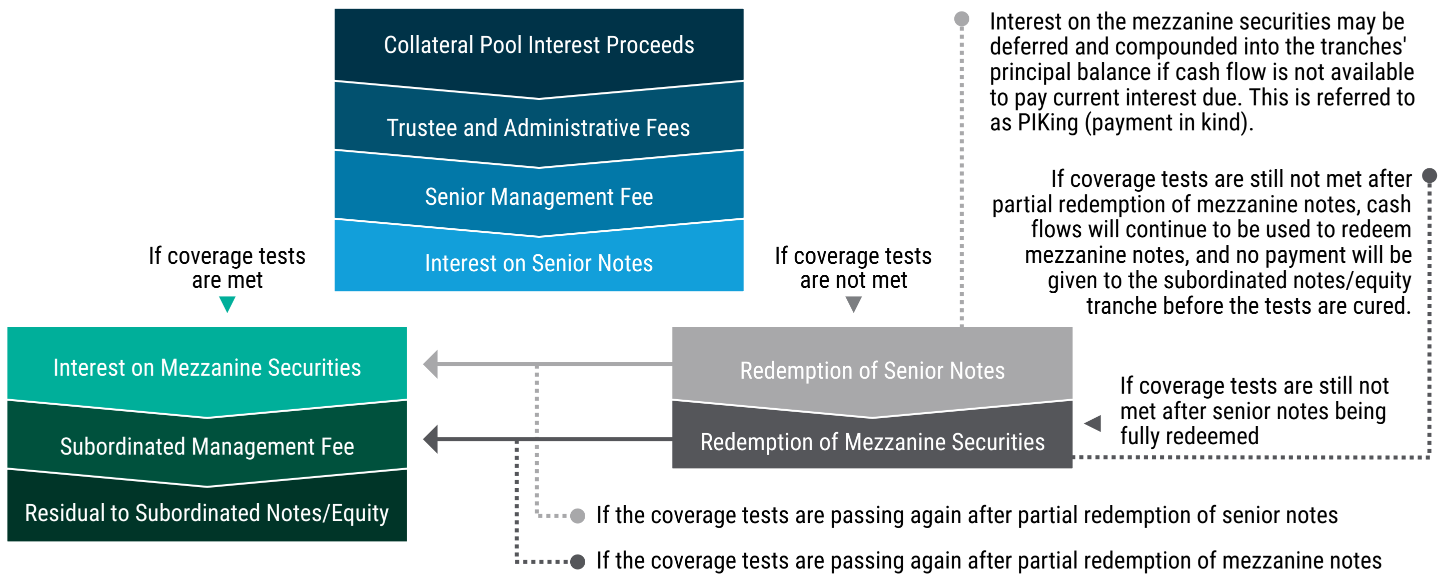
Cash flows are the lifeblood of a CLO: They determine the distribution of income and principal, which determines the return on investment. The key concept is that distributions are paid sequentially starting with the senior-most tranche until each CLO tranche has been paid its full distribution. Equity-tranche holders absorb costs and receive the residual distributions once the costs have been paid.

Coverage tests are a vital mechanism to detect and correct collateral deterioration, which directly affects the allocation of cash flows. All CLOs have covenants that require the manager to test the portfolio's ability to cover its interest and principal payments monthly. Among the many such tests, the most common are the interest coverage[8] and overcollateralization[9] tests. Covenants specify baseline values for each test.

If the tests come up short, the manager must take cash flows from the lowest debt and equity-tranche holders and divert them to retire the CLO tranches in order of seniority. The diagram that follows provides a general illustration of the "waterfall" process in which cash flows are paid when the portfolio either passes or doesn't pass its interest coverage tests.

[8] The income generated by the underlying pool of loans must be greater than the interest due on the outstanding debt in the CLO.
[9] The principal amount of the underlying pool of loans must be greater than the principal amount of the outstanding CLO tranches.

The Cash Flow Waterfall Has Two Streams
Interest payments are based on the results of the coverage test



Source: Morgan Stanley Research, "A Primer on Global Collateralized Loan Obligations (CLOs)," as of 20 September 2021.

Built-in risk protections

Coverage tests are one of several risk protections built into the CLO structure. Others include:

- **Collateral concentration limits.** Many deals mandate that at least 90% of the portfolio be invested in senior secured loans.
- **Borrower diversification.** The pool of loans typically must be diversified across 150-450 distinct borrowers in 20-30 industries, with a small percentage of the assets (e.g., 1%) invested in the loans of any single borrower.
- **Borrower size requirements.** Deals often restrict managers from purchasing loans to small companies, whose trading liquidity is low.

The equity tranche: the highest risk could mean the highest return

The equity tranche occupies a distinct place in the CLO structure. It's essentially a highly leveraged play on the strength of the underlying collateral. Because the equity tranche's success depends on the success of the CLO tranches – it's last in line to receive cash flows and first to realize loan losses – its owners take the most risk of any CLO investors. Their goal, then, is to maximize the value of the equity.

As compensation for providing the majority of equity capital, the majority equity-tranche holder is given potential control over the entire CLO in the form of options, as highlighted below:

- **Call option.** The majority equity investor can direct a refinancing in some or all CLO debt after the non-call period expires to take advantage of potentially accretive opportunities for the equity returns, such as:
  - *Refi scenario.* CLO debt is refinanced into lower-cost debt with the same maturity and minimal changes to other deal terms.

- *Reset scenario.* All CLO debt is refinanced, and the legal maturity of the debt is extended. Resets typically extend the reinvestment period of the CLO and the period during which the CLO equity can potentially capture value under volatile leveraged loan market conditions.

Both options could potentially increase prospective equity returns over the life of the CLO, typically by 50 to 150 bps, depending on the extent of spread tightening since the deal originally priced.

- **Redemption** occurs when the assets are sold, the proceeds are used to pay off the debt, and the residual amount is paid to the equity, resulting in a final internal rate of return (IRR) calculation. Redemption allows the majority equity holder to optimize the value of the underlying collateral by controlling the point in time that the loan assets are liquidated.

To learn more about the potential benefits of CLO equity, read our primer, CLO Equity: How It Works – and Why It's Compelling Now.

Keeping up with regulatory changes

In the wake of securitized investments' difficulties during the financial crisis, US and European regulators took steps to mitigate CLOs' structural risks that made CLOs more attractive for investors.

European regulation is concentrated in several rules governing the capital requirements for banks and insurance companies. Risk retention, commonly known as "skin in the game," has been a requirement in Europe since 2011. It holds that CLO managers must retain 5% of the original value of the assets in their CLOs to align their interests more closely with those of investors.

The US required CLOs to be risk-retention compliant from December 2016 to May 2018. A court case brought by the Loan Syndications & Trading Association (LSTA) reversed the decision, as it was deemed that CLO managers do not "originate" the loans; rather, they buy them. As a result, risk retention is no longer required for US CLO issuers.

A prominent US regulatory development was the implementation of the Volcker Rule, which became effective in 2014. To be in compliance, most 2.0 vintage CLOs issued starting in 2014 were collateralized only with leveraged loans, and many 1.0 CLOs were "Volckerized" to eliminate non-loan collateral (where previously CLOs had 5%-10% exposure to high yield bonds). While the Volcker rule has since been amended to allow the inclusion of high yield bonds into a CLO, relatively few CLOs have included these investments; that said, the number of CLOs utilizing this additional flexibility in asset exposure has ticked up over the past couple of years.

Lastly, the sunsetting of Libor at the end of 2021 required US CLOs and their underlying leveraged loans to transition to a new reference rate. The Alternative Reference Rate Committee (ARRC) formally endorsed term SOFR as the fallback rate for the Libor transition in July of 2021, and Libor could no longer be used to issue new loans as of January 2022. While origination of new loans and CLOs linked to Libor ended in 2021, legacy products were permitted to continue to use certain Libor tenors as reference rates until 30 June 2023, after which the one-, three-, and six-month USD Libor rates would no longer be representative. The loan and CLO markets navigated the transition successfully, with most loans transitioning to a new benchmark on or prior to 30 June 2023. Term SOFR is now widely used as the replacement for Libor in US CLOs and broadly syndicated loans.

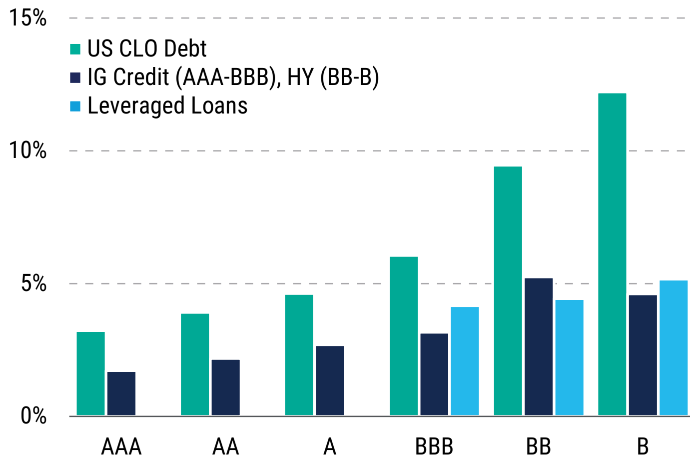
A wealth of potential benefits

CLOs can offer investors multiple benefits, both on their own and versus other fixed income sectors.

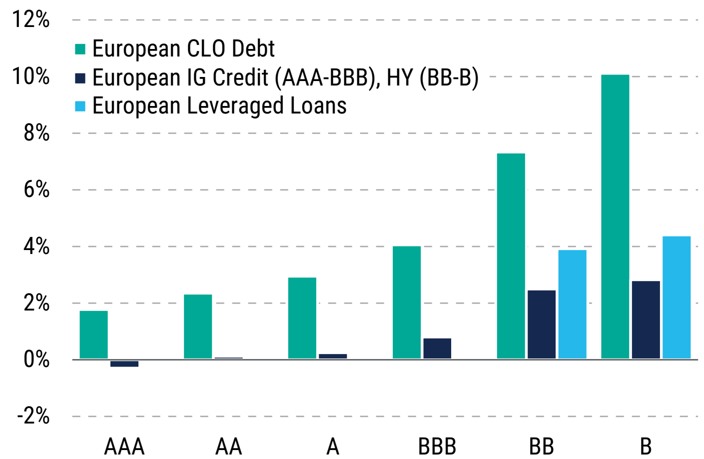
Strong returns. Over the long term, CLO tranches have outperformed other corporate debt categories, including leveraged loans, high yield bonds, and investment grade bonds, and have significantly outperformed at lower rating tiers. CLOs have also outperformed on a risk-adjusted basis, generating higher Sharpe ratios than many other credit asset classes.

CLOs Historically Have Offered Attractive Returns vs. IG Credit, High Yield, and Leveraged Loans …

10-year US annualized return comparison



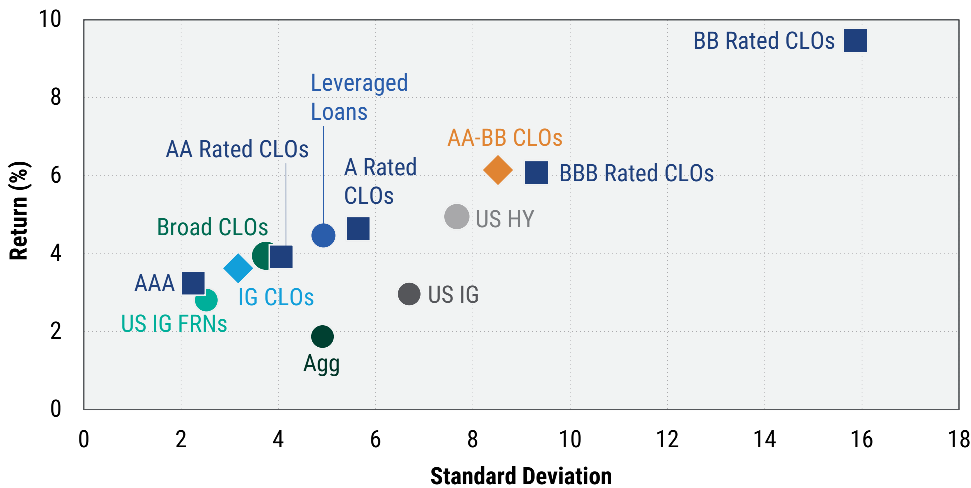
6.75-year European annualized return comparison



Sources: J.P. Morgan, Bloomberg, and LCD, as of 30 September 2024. US CLO debt ten-year annualized returns represented by the J.P. Morgan CLOIE Index; IG credit: Bloomberg US Credit Index; High yield bonds: Bloomberg US Corporate High Yield Bond Index; Leveraged loans: Morningstar LSTA Leveraged Loan Index. European CLO Debt 6.75-year annualized returns represented by the: European J.P. Morgan CLOIE Index with data since inception with first month of returns in January 2018; European IG Credit: Bloomberg Euro Aggregate Corporate TR Index; European high yield bonds: Bloomberg Pan-European HY (Euro) TR Index; European Leveraged loans: Morningstar LSTA European Leveraged Loan Index. Past performance is not indicative of future results.

… And on a Risk-Adjusted Basis

Attractive risk-adjusted returns vs. other asset classes (10 years as of 30 September 2024)

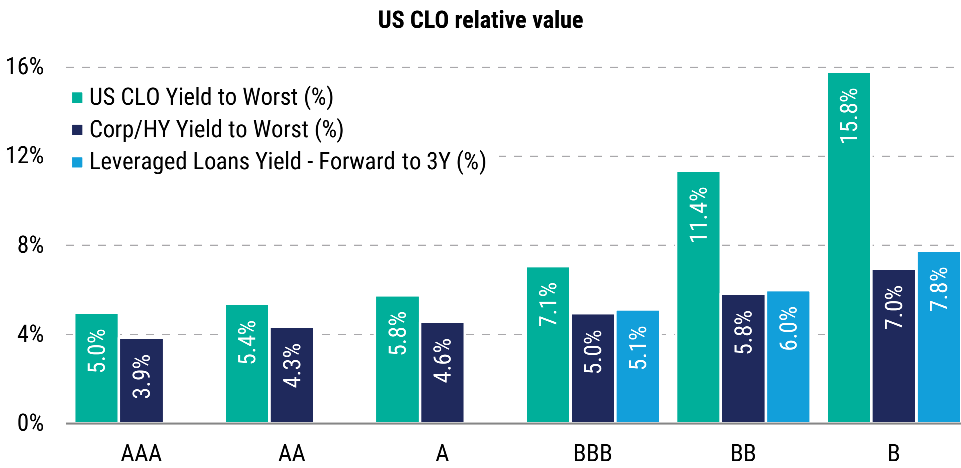


Rating	Return	Sharpe Ratio
Broad CLOs	3.95	0.60
IG CLOs	3.63	0.61
AA-BB CLOs	6.15	0.55
AAA Rated CLOs	3.24	0.69
AA Rated CLOs	3.92	0.55
A Rated CLOs	4.64	0.53
BBB Rated CLOs	6.07	0.50
BB Rated CLOs	9.46	0.55
US IG	2.96	0.21
US HY	4.95	0.45
Leveraged Loans	4.47	0.57
US IG FRNs	2.81	0.44
Agg	1.87	0.05

Source: Morningstar as of 30 September 2024. CLOs represented by J.P. Morgan CLO Index, CLO IG by J.P Morgan CLO IG Index, AAA Rated CLOs by J.P. Morgan CLO AAA Index, AA Rated CLOs by J.P. Morgan CLO AA Index, A Rated CLOs by J.P. Morgan CLO A Index, BBB Rated CLOs by J.P. Morgan CLO BBB Index, BB Rated CLOs by J.P. Morgan CLO BB Index, US IG by ICE BofA US Corporate Index, US HY by ICE BofA US High Yield Index, Agg by the ICE BofA US Broad Market, US IG FRNs by MVIS US Investment Grade Floating Rate Note Index, Leveraged Loans by Morningstar LSTA US Leveraged Loan 100 Index. Past performance is not indicative of future results.

Wider yield spreads. CLO spreads typically are wider than those of other debt instruments, reflecting CLOs' greater complexity, lower liquidity, and regulatory requirements. Compared with investment grade corporates, as well as other higher-yielding debt sectors – notably high yield and leveraged loans – CLO spreads are especially compelling.

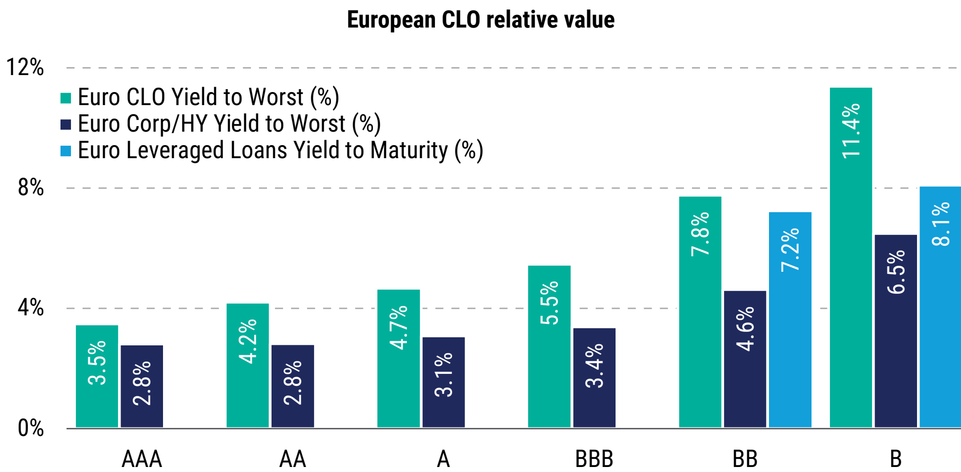
CLOs Offer Higher Yields Versus Comparably Rated Corporate Bonds and Loans



US CLO yield pickup at each rating category

	US CLO Yield Pickup vs.	
Rating	**Bonds**	**Leveraged Loans**
AAA	+1.1%	--
AA	+1.0%	--
A	+1.2%	--
BBB	+2.1%	+1.9%
BB	+5.5%	+5.4%
B	+8.9%	+8.0%

Source: J.P. Morgan, Bloomberg, and LCD, as of 30 September 2024. US CLO debt represented by the J.P. Morgan CLOIE Index; IG credit: Bloomberg US Credit Index; High yield bonds: Bloomberg US Corporate High Yield Bond Index; Leveraged loans: Morningstar LSTA Leveraged Loan Index. Past performance is not indicative of future results.



European CLO yield pickup at each rating category

	European CLO Yield Pickup vs.	
Rating	**Euro Bonds**	**Euro Leveraged Loans**
AAA	+0.7%	--
AA	+1.4%	--
A	+1.6%	--
BBB	+2.1%	--
BB	+3.1%	+0.5%
B	+4.9%	+3.3%

Source: J.P. Morgan, Bloomberg, and LCD, as of 30 September 2024. European CLO debt represented by the J.P. Morgan Euro CLOIE Index; Euro IG credit: Bloomberg Euro Aggregate Corporate TR Index; EUR High yield bonds: Bloomberg Pan-Europe High Yield TR Index; Euro Leveraged loans: Morningstar LSTA European Leveraged Loan Index. Past performance is not indicative of future results.

Low interest-rate sensitivity. Leveraged loans and CLO tranches are floating-rate instruments, priced at a spread above a benchmark rate (such as SOFR and Euribor). As interest rates rise or fall, CLO yields will move accordingly, and their prices have historically moved less than those of fixed-rate instruments. These characteristics can be advantageous to investors in diversified fixed income portfolios.

Attractive risk profile. As demonstrated by a variety of key metrics, with default/impairment and loss rates as the most notable examples, CLOs have historically presented lower levels of principal losses relative to corporate debt and other securitized products. Of the approximately $500 billion of US CLOs issued from 1994-2009 and rated by S&P (vintage 1.0 CLOs), only 0.88% experienced defaults, and an even smaller percentage of those, 0.35%, were originally rated BBB or higher (see table below). Among CLOs rated by Moody's, there have been zero defaults on the AAA and AA tranches across all vintages (1.0 through 3.0).[10] Loss rates are also very low, with originally rated AAA-A rated tranches never experiencing a principal loss, while Baa, Ba, and B tranches have cumulative 10-year loss rates of just 0.58%, 3.76%, and 10.47%, respectively, compared to loans and corporate bonds, which have average annual loss rates of 30.7% and 57.3%, respectively.

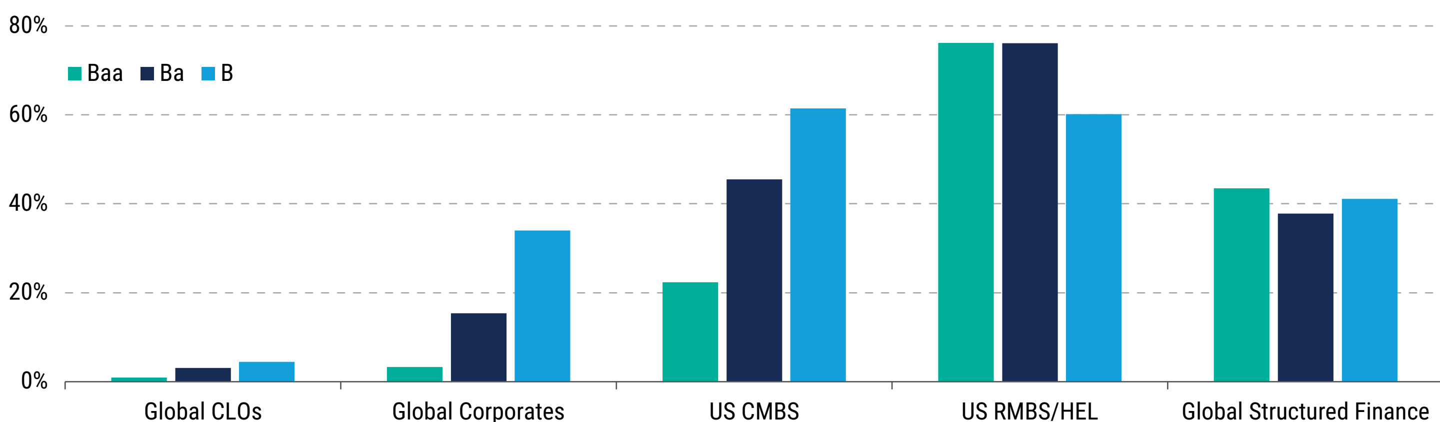
US CLO Default/Impairment Rates Have Been Low Historically

US CLO defaults by original rating (1994-Q1 2024)

	Issued Pre-GFC "CLO 1.0"			Issued Post-GFC "CLO 2.0"		
	# Ratings	# Default	% Default	# Ratings	# Default	% Default
AAA	1,540	0	0.0%	3,840	0	0.0%
AA	616	1	0.2%	3,112	0	0.0%
A	790	5	0.6%	2,582	0	0.0%
BBB	783	9	1.1%	2,355	0	0.0%
BB	565	22	3.9%	1,919	0	0.5%

Source: S&P Global, "CLO Spotlight: Thirty Years Strong: U.S. CLO Tranche Defaults From 1994 Through First-Quarter 2024." Past performance is not indicative of future results.

Cumulative 10-year impairment rates



As of 25 June 2024. Source: Moody's Investor Service. The multi-year cumulative withdrawn rating (WR) unadjusted impairment rates by original rating were reported June 2023 and covered 1993-2023 time horizon for Global CLOs, CMBS, US RMBS/HEL and Global Structured Finance, while Global Corporates represent the average cumulative issuer-weighted global default rates and covered 1983-2022 time horizon. Past performance is not indicative of future results.

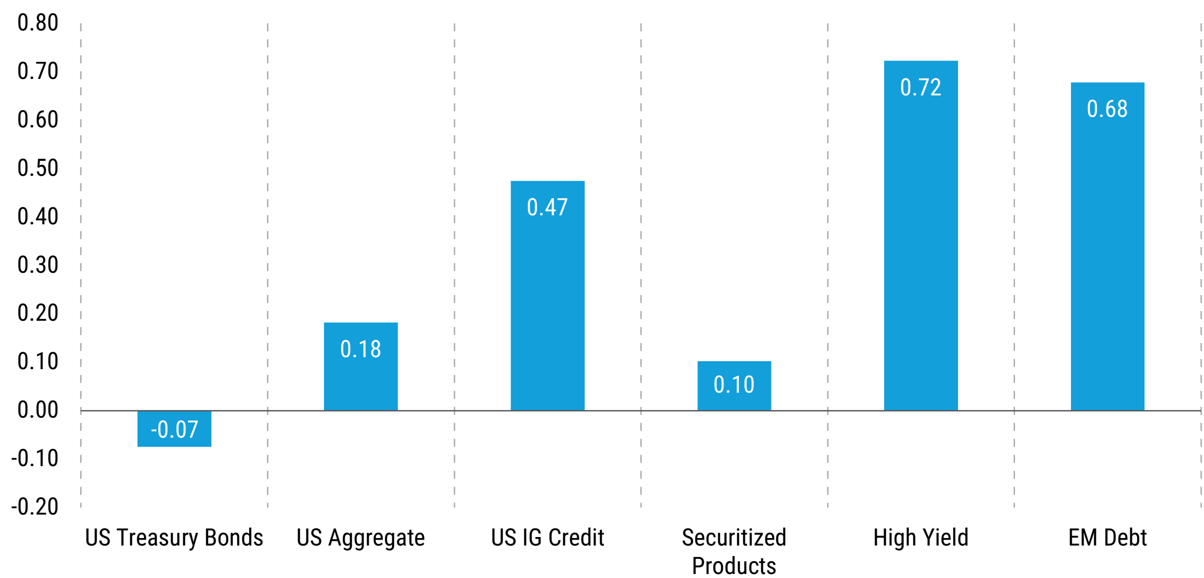
[10] Source: Morgan Stanley Research, "A Primer on Global Collateralized Loan Obligations (CLOs)," as of 20 September 2021.

Inflation and rising-rates hedge. CLOs' floating-rate yields make them an effective hedge against inflation and rising interest rates since their coupons adjust based on a reference rate (SOFR or Euribor) and therefore have lower interest rate duration risk versus similarly rated fixed income alternatives.

Strong credit quality. Unlike most corporate bonds, leveraged loans are both secured and backed by first-lien collateral.

Diversification. CLO correlations with other fixed income categories are relatively low, meaning that many CLOs have historically increased the effective diversification of a broader portfolio.

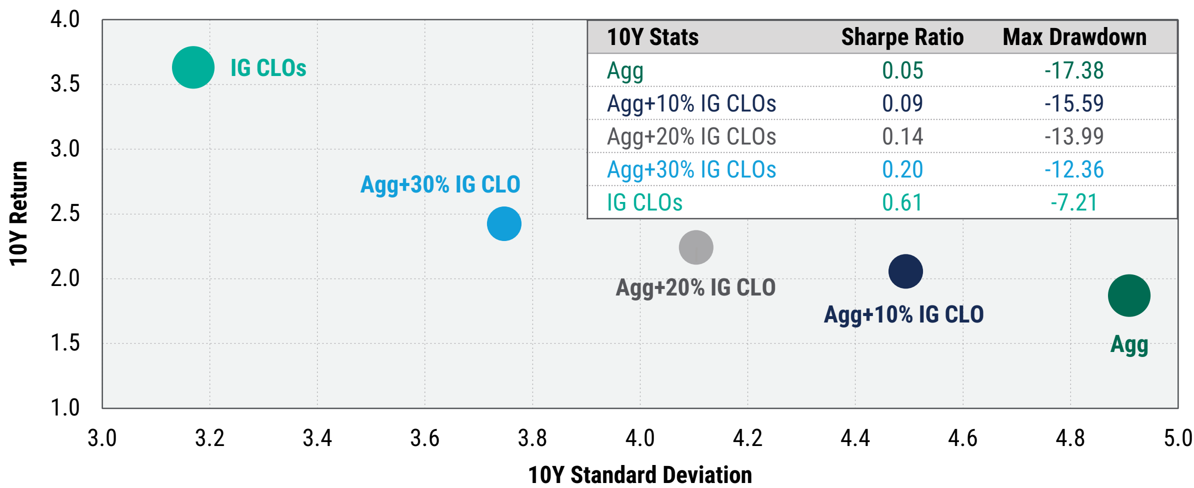
US CLO Correlations With Other Fixed Income Asset Classes
10 years as of 30 September 2024



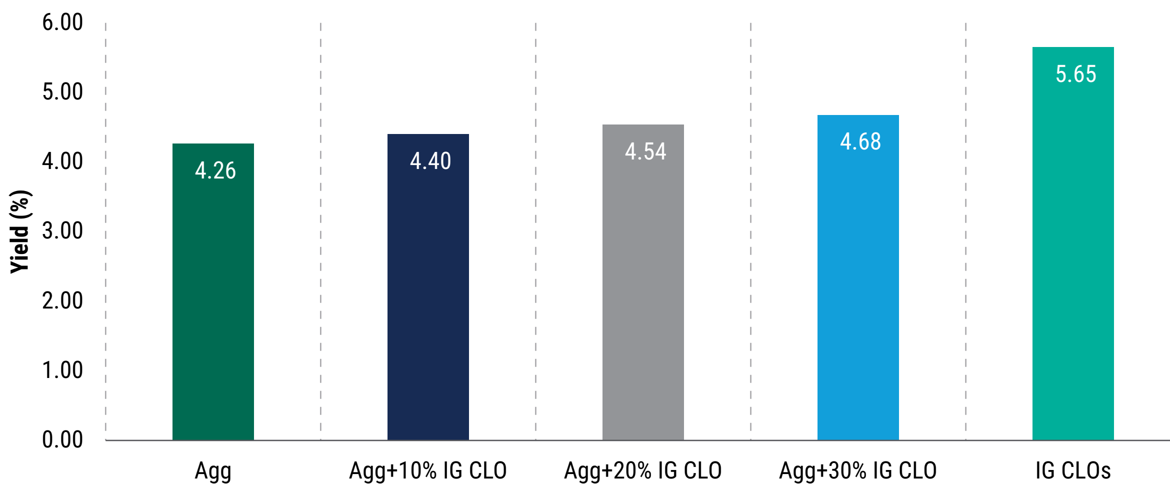
Source: J.P. Morgan and Bloomberg as of 30 September 2024. CLOs represented by the J.P. Morgan CLO Post-Crisis Index; US Treasury bonds by the Bloomberg Long Treasury Index; US aggregate by the Bloomberg US Aggregate Index; US IG credit by the Bloomberg US Credit Index; Securitized products by the Bloomberg US Securitized: MBS/ABS/CMBS and Covered TR Index; High yield by the Bloomberg US Corporate High Yield Index; and EM debt by the J.P. Morgan EMBI Global Diversified Composite Index.

Adding CLOs may provide better outcomes, particularly as a complement to core bond portfolios. The chart below illustrates how 10% to 30% allocations to CLOs can enhance Sharpe ratios while decreasing the maximum drawdown and enhancing overall yield versus a pure core bond allocation.

CLOs Can Provide Better Outcomes to Core Bond Portfolios



10Y Stats	Sharpe Ratio	Max Drawdown
Agg	0.05	-17.38
Agg+10% IG CLOs	0.09	-15.59
Agg+20% IG CLOs	0.14	-13.99
Agg+30% IG CLOs	0.20	-12.36
IG CLOs	0.61	-7.21



As of 30 September 2024. Source: J.P. Morgan and ICE Data Services. IG CLOs represented by the J.P. Morgan CLO IG Index and Agg refers to the ICE BofA US Broad Market Index. CLO Yield to Worst represents yield to call for premium priced securities or to maturity when priced at a discount to par based on forward reference rates. Past performance is not indicative of future results. For illustrative purposes only.

Important risks to consider[11]

The complexity of CLOs comes with a number of risks that investors should consider carefully.

Credit strength. While CLOs enjoy strong credit quality due to the senior secured status of leveraged loans, it's important to keep in mind that leveraged loans carry inherent credit risk: They're issued to below-investment-grade companies whose revenue streams are sensitive to fluctuations in the economic cycle.

Collateral deterioration. If a CLO's loans experience losses, cash flows are allocated to tranches in order of seniority. Depending on the severity of the losses, the value of the equity tranche could be wiped out and junior CLO tranches could lose principal.

Non-recourse and not guaranteed. Leveraged loans are senior obligations and, as such, have full recourse to the borrower and its assets in the event of default. A CLO, however, has recourse only to the principal and interest payments of the loans in the portfolio.

Loan prepayments. Leveraged loan borrowers may choose to prepay their loans in pieces or completely. While experienced CLO managers may anticipate prepayments, they're nonetheless unpredictable. The size, timing, and frequency of prepayments could potentially disrupt cash flows and challenge managers' ability to maximize portfolio value.

Trading liquidity. CLOs generally enjoy healthy trading liquidity, but that could change quickly if market conditions turn. A prime example is the financial crisis, when trading activity for even the most liquid debt instruments slowed to a trickle. While senior tranches are typically very liquid throughout a market cycle, lower-rated mezzanine tranches can see significant declines in trading activity during periods of severe market stress.

Timing of issuance. While market conditions could be strong when a CLO is issued, they might not be during its reinvestment period. We saw this with the 2003 vintages, whose reinvestment period coincided with the onset of the financial crisis and its resulting drop-off in trading volume.

Manager selection. Historical performance of CLO managers encompasses a wide spectrum of returns, underscoring the importance of choosing seasoned managers with solid long-term track records.

Spread duration. While interest rate duration is low due to the floating-rate nature of CLO tranches (indexed off three-month SOFR and Euribor), spread duration should be taken into account. Due to CLOs' typical reinvestment period of four to five years, spread duration is usually between 3.5 and nine years. Because each CLO is redeemed sequentially, the higher up the capital stack, the lower the spread duration (and vice versa), making spread duration higher in the lower-rated tranches.

Choosing the right manager

The most critical decision a CLO investor can make is the selection of a manager. There are approximately 225 managers[12] with post-crisis CLOs to choose from, and each creates its own portfolio using its own investment style. And it's worth repeating that historical performance among managers varies greatly. That said, successful managers tend to share several key traits:

Extensive experience

There's no substitute for deep CLO management experience, which provides the combination of skills, practice, tactical and strategic savvy, adjustment-making, and chronological perspective needed to generate strong returns in such a complicated asset class.

Perspective spanning multiple cycles may be the most important aspect of experience in the CLO realm, as the benefit of having managed portfolios before, during, and after the financial crisis and through an evolving regulatory landscape is incalculable.

Excellence of execution

Managers should show strong abilities in the vital competencies that collectively define best-practice portfolio management. These begin with loan selection, as creating a strong collateral base lays the foundation for potential success. Trading skill enables the manager to know when to take gains, avoid losses, and adjust the portfolio as market conditions evolve. Effective management of deteriorating credits affects not just the specific credits involved, but also the entire CLO due to the way cash flows are distributed through the tranche structure. And the reinvestment of principal proceeds in new collateral can make the difference between good and great performance.

Expertise in handling risk

Sound risk management is both a cause and effect of these best practices: It informs everything the manager does and is reflected in the results. In addition to oversight of the portfolio, it includes skillful execution of coverage tests; the ability to understand the nuances and idiosyncrasies of CLO documentation, which is nonstandard and complex; and a talent for balancing the numerous portfolio metrics by optimizing as many as possible while taking a hit on as few as possible.

[11] This should not be considered an exhaustive list of potential risk factors related to CLOs, rather an illustrative description of some potential factors affecting a CLO investment.
[12] PineBridge, Intex as of 31 January 2024.

PineBridge has a long history in CLOs

PineBridge Investments has extensive experience in CLOs, with a distinct vantage point both as an investor in third-party CLOs and as a CLO issuer.

Since 1999, we've issued 39 CLOs in the US and Europe, with a par value of approximately $16.0 billion. In addition, we've reissued, reset, or refinanced 25 transactions worth $11.5 billion.[13]

Our stable and tenured leveraged finance team includes:[14]

- Portfolio managers averaging 27 years of industry experience and 17 years at the firm
- A deep bench of credit analysts, averaging 19 years of industry experience and 10 years at the firm

In fixed income, our experience extends across the spectrum of developed and emerging markets, investment grade debt, leveraged finance, private credit, and multi-sector strategies.

Our investment process is informed by integrated, proprietary global credit research and rigorous credit analysis across the capital stack, sectors, and regions.

Our leveraged finance portfolios total $28.0 billion, including $7.1 billion in US and European CLOs and $3.3 billion in CLO tranches.[15]

[13] As of 31 August 2024. Includes all CLOs managed by PineBridge (or an affiliate).
[14] As of 30 September 2024.
[15] As of 30 September 2024. Includes all leveraged finance portfolios managed by PineBridge (or an affiliate).

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PineBridge Investments is a private, global asset manager focused on active, high-conviction investing. We draw on the collective power of our experts in each discipline, market, and region of the world through an open culture of collaboration designed to identify the best ideas. Our mission is to exceed clients' expectations on every level, every day. As of 30 September 2024, the firm managed US$203.1 billion billion across global asset classes for sophisticated investors around the world.

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