

BARINGS

STRUCTURED CREDIT

What is a CLO?

INSIGHTS

CLOs provide an efficient, scalable way of investing in floating-rate loans while offering structural protection that has historically performed well through multiple credit cycles.



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A collateralized loan obligation (CLO) is an actively managed securitized product backed by a highly diversified pool of leveraged loans. CLOs provide an efficient, scalable way of investing in floating-rate loans while offering structural protection that has historically performed well through multiple credit cycles.

To simplify, think of a CLO as a company that raises money from debt and equity investors to purchase a pool of 150-200 diversified senior secured first-lien corporate loans, "the assets." These assets are also called leveraged loans and come from large well-known borrowers, such as United Airlines, Virgin Media and Burger King, that have below investment grade ratings and high levels of debt. The loans are floating rate and pay interest on a monthly or quarterly basis with a spread above an index (typically SOFR or LIBOR). Additionally, the senior secured nature of these loans has resulted in historically higher recovery rates compared to senior unsecured bonds.

Juxtaposed with the assets are the debt obligations, or "the liabilities," which are sliced into "tranches" that re-distribute the risk of direct exposure to the portfolio of loans by offering tiered credit enhancement and structural protections. A typical CLO structure combines five or more classes, from the senior most tranche rated AAA down to the most junior and highest-yielding debt tranche rated BB-. The tranches are floating rate like the assets and are due a coupon on a quarterly basis.

After paying off expenses and liabilities, a residual unrated "CLO Equity" tranche captures the excess spread (returns) that the assets generate. As the equity tranche is leveraged exposure to the underlying leveraged loans, it is the riskiest piece of the CLO structure; however, it can also be the most lucrative.

CLO Asset CLO Debt and Corporate Capital Structure Collateral Pool **Equity Tranches** Lowest Risk Senior Secured Loans Selected Cash Loans Flows AAA: 60-63% 150-200 Senior Secured **Bank Loans** AA: 10-13% **Unsecured Debt** Actively A: 7-9% Managed BBB: 4-6% Diversified BB: 4-6% Across 15-25 Industries B: 1-2% Equity Average Credit Rating: B1/B2 Equity: 8-10% Highest Risk

Figure 1: Typical CLO Structure

Source: Barings.



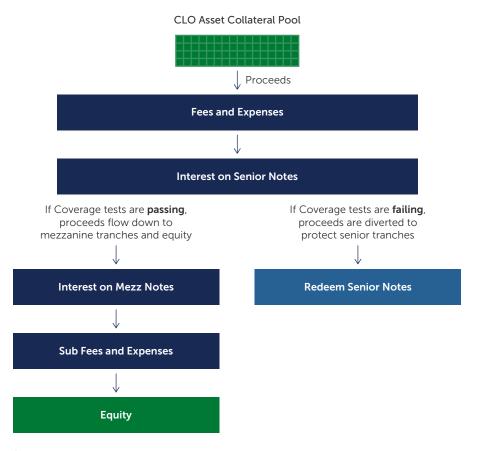
How CLOs Work

WATERFALL

Cash flows from the collateral pool are dispensed via a waterfall that pays the debt, in order, based on seniority, with the highest-rated tranches paid first, followed by the mezzanine tranches and, finally, the equity tranche. If the assets in the underlying collateral pool generate sufficient proceeds, the top tranche (the AAA senior-most tranche) is paid first, followed by the AA tranche and so forth. The equity tranche at the bottom catches all the remaining overflow.

However, should some assets perform poorly or default, CLOs employ early warning triggers to divert proceeds to protect the more senior tranches. One of these is called the overcollateralization test (OC Test). The OC Test ensures there is a sufficient ratio of assets to liabilities. If the OC Test ratio is breached, the payments that would have flowed through to equity are diverted to pay down senior classes or purchase additional assets until that ratio is back in compliance.

Figure 2: CLO Waterfall



Source: Barings.



Subordination

While payments are distributed in order of seniority, losses are applied in the reverse order. CLO equity is also called the first loss piece and typically absorbs the first 8–10% of losses, after which the losses start to impact the junior debt. The senior AAA tranche has the largest subordination levels, typically in the range of 35–40%, up from 25–28% during the Global Financial Crisis (the CLO 1.0 era).¹

Active Management

The majority of CLOs are actively managed over the life of the deal. Collateral managers construct the portfolio during the ramp-up period and trade in and out of positions during the reinvestment period, with the intent to minimize credit losses and maintain or build par while navigating the investment constraints of a CLO.

CLO Lifecycle

A typical CLO has a 10–12 year life with multiple segments:

- Warehouse (6–12 months): The CLO manager receives financing from a warehouse provider to purchase the initial loans that make up the collateral pool before the closing date.
- Ramp-up (1–6 months): After the CLO's closing date, the CLO manager continues to purchase loans with the proceeds received from issuing debt tranches.
- Reinvestment (1–5 years): After the ramp-up period, the manager may trade in and out of loan collateral positions during the pre-defined trading period.
- Non-call (1–2 years): During the non-call period, the liability spreads will be locked into the rate issued at closing. After this period elapses, the majority equity investor has the right to call the deal and refinance the debt tranches at a lower spread should market conditions become attractive to do so.
- Amortization (1–4 years): After the end of the reinvestment period, the transaction will begin to pay down the tranches in order of seniority via the waterfall priority of payments set out in the CLO's governing indenture.

Who Buys CLO Tranches?

- Senior Tranches (AAA–AA): U.S. banks, Japanese banks, insurance companies, pension funds, endowments
- Mezzanine Tranches (A-BB): Insurance companies, asset managers, pension funds, endowments
- Equity: Asset Managers, hedge funds, private equity funds, family offices, pension funds, endowments

Since product inception in the mid-1990s, the CLO market has grown to over \$1.2 trillion in size. CLO tranches are actively traded in secondary markets, providing more transparent market values than other illiquid asset classes.



Why are CLOs Attractive?

CLOs combine compelling yields with structural enhancements.

CLOs tend to have higher spread pick-up than other similarly rated asset classes (Figure 3) while employing structural protections that provide investors with additional credit support in periods of distress. Further, the floating-rate aspect of CLO coupons creates a natural hedge and more stable prices in periods of rising interest rates compared to fixed-rate securities.

CLOs are often compared, unfairly, to collateralized debt obligations (CDOs), which played a significant role in the Global Financial Crisis. However, unlike residential mortgage-backed securities CDOs (RMBS CDOs), which were made up of subprime mortgages that often had little or no documentation, CLOs are backed by diverse pools of senior secured corporate loans from large companies with robust annual reporting and historically strong recovery rates.

AAA 300 1200 1000 250 200 800 600 150 100 400 50 200 0 CLO **CMBS** CLO Corp. Credit Subprime Auto Corp. Credit **CMBS** Subprime Auto Current 12-month Wide 12-month Tight

Figure 3: AAA/BB CLO Relative Value to Similar Asset Classes (January 2022–December 2022)

Sources: CLO spread source: J.P. Morgan. As of December 31, 2022. Corp. Credit spread Source: Credit Suisse. As of December 31, 2022. CMBS and Corporate Credit Spread to Swap Source: Barclays. As of December 31, 2022. Subprime Auto Spread to Swap Source: BofA. As of December 31, 2022.

Figure 4: CLOS VS. RMBS CDOS

	RMBS CDO	CLO
Collateral	RMBS (subprime, option ARM, Alt-A, jumbo mortgages)	Primarily corporate loans with some bonds
Asset Diversification	Geographic—housing ended up being highly correlated across the country	By industry and issuer—generally 10% per industry and 1–2% per obligor

Source: BofA.

In fact, since their inception, no AAA CLO tranche has ever defaulted, and other CLO debt tranches also boast significantly lower default rates than similarly rated corporate loans (Figure 5). That historical performance illustrates the resiliency of the structural features embedded within CLOs and the benefits of dynamically managed collateral portfolios.



Figure 5: Historical CLO Default Rates

S&P U.S. CLO Tranche Default History (1996–YE 2021)				
Rating	Total Tranches	Defaulted Tranches	Default Rate	S&P Avg U.S. Corp 5-Year Cumulative Default Rate
AAA	4,869	0	0.0%	0.4%
AA	3,281	1	0.03%	0.4%
А	3,010	5	0.2%	0.7%
BBB	2,787	9	0.3%	1.8%
ВВ	2,217	24	1.1%	7.4%
В	401	6	1.5%	18.1%

Source: S&P. As of December 31, 2021.

Why Barings?

DEEP, EXPERIENCED TEAM

Barings structured credit team comprises 13 investment professionals averaging over 16 years of CLO investment experience. Barings currently has over \$25 billion in structured credit assets under management and is a pioneer in the industry, having invested in CLOs since the late 1990s.2

COMMITMENT TO UNDERWRITING

Barings employs rigorous, bottom-up fundamental credit analysis. Within structured credit, we qualitatively and quantitatively assess the collateral manager of the CLO, including a careful review of the underlying portfolio. Barings' broad public fixed-income platform allows us to leverage our market-leading global high yield team's research to complement our analysis of the underlying loans. Finally, we review the structural nuances of each CLO to understand how they impact the quality and relative value of potential investments.

ACCESS TO INVESTMENT OPPORTUNITIES

Our longstanding and active participation in the CLO market helps us to negotiate favorable terms for our clients, including allocations to coveted new issue CLO tranches, early "first looks" at primary and secondary market investment opportunities and strong trade execution.



"CLOs tend to have higher spread pick-up than other similarly rated asset classes while employing structural protections that provide investors with additional credit support in periods of distress."

OUR PHILOSOPHY

As seen in (Figure 6) below, our philosophy focuses on a complete understanding of the CLO collateral manager's investment style, a thorough analysis of the underlying collateral pool and a comprehensive understanding of each CLO structure to identify superior opportunities.

Figure 6: CLO Investment Philosophy



COLLATERAL MANAGER

Investment Style and Process

Historical Track Record

Commitment to the High Yield Market



UNDERLYING COLLATERAL

Detailed Breakdown of the Entire Portfolio

Leverage Internal High Yield Research



STRUCTURE

Thorough Review of the Entire Capital Structure and Payment Waterfall

Consider Additional Features that will Impact Performance

Detailed Legal Documentation Review

Cashflow Stress Analysis



RELATIVE VALUE

Size and Depth of Team and Resources Allow Efficient Deployment of Capital Across the Entire Capital Structure

Use Data Systems, Market Observances, and Collaborative Effort to Determine CLO Tranche Relative Value

Takeaway

Having navigated through multiple cycles, our deeply knowledgeable structured credit team has the ability to help guide our clients through the dynamic and constantly evolving CLO market. Our assessment of the collateral manager is one of the most important factors we consider in valuing a CLO tranche, as their behavior can significantly impact the returns experienced on similar collateral pools. Combining our careful manager review with our bottom-up fundamental credit analysis has resulted in a track record of delivering attractive returns to investors since the late 1990s. The team has expertise across the totality of the capital structure, so whether a client prefers the relative safety of a AAA tranche or seeks the potential upside of CLO Equity, our team has the size, track record and ability to meet their specific needs.



Risks

As with any asset class, CLOs present risks investors should consider, including:

- Credit Risk: There is the risk that a change in the credit quality of the borrower will affect the market value of the underlying collateral position.
- Default Risk of the Underlying Collateral Portfolio: As defaults are realized in the collateral pool, the amount and value of the overall collateral available to re-pay the outstanding debt of a CLO diminishes. If sufficient collateral is lost from default and or other realized credit losses (sales below par by the manager), the ultimate additional loss capacity of all tranches is reduced. Defaults and other realized losses that result in very low collateral coverage can trigger an event of default, often giving senior classes the right to accelerate and liquidate the collateral portfolio.
- Asset Manager Risk: Active collateral management by a manager will change the risk profile of the collateral pool over time. Poor performance by the manager may increase the risk highlighted above.
- Interest Rate Risk: Derives from exposure to the floating rate index curve.
- Liquidity Risk: CLO tranches should be assumed to have limited liquidity.
- Prepayment and Reinvestment Risk: Stems from the possibility of unscheduled return on principle and the potential inability to reinvest proceeds.
- Downgrade Risk: Rating agencies actively review collateral performance as well as their own internal methodology, thus downgrades are possible.
- Cash Flow Timing: Based on many variables, including but not limited to, default rates, recovery rates, recovery timing, reinvestment tenor and yield and reinvestment quality and price that will impact the timing of cash flows changing the average life and realized yield.

Individual CLOs may also have terms that limit trading flexibility and other restrictions defined in their respective indentures. The legal documentation is highly complex and can contain inconsistencies or errors, creating potential risk and requiring significant interpretational expertise.

The list set forth here is not a complete list of the risks and other important disclosures associated with such investments and is subject to the more complete risk and disclosures contained in the applicable confidential offering documents.

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