



The strategic case for CLOs vs. high yield corporate bonds

December 2022

BB CLOs earn a persistent yield premium - currently over 6% - relative to corporate bonds of equal risk

Pretium believes that most investors who are allocating to high yield corporate bonds should also be considering bonds from the collateralized loan obligation (CLO) sector as well. Per Exhibit 1 below, BB rated CLO bonds have market yields of 13.9% as of November 22, 2022, vs. an average 7.2% yield for BB corporate bonds. Exhibit 2 shows that the extra yield that CLOs earn vs. corporate bonds, the CLO's "complexity premium", has grown in recent months, a trend that, we think, has improved the long-run value proposition associated with CLO debt. This yield premium reflects index, or average returns - i.e., "beta". Industry researchers appear to share the view that CLOs can offer value, as highlighted by the quotations below:

- Morgan Stanley: "...we believe that the CLO market has more than priced in the downside risks, providing a large margin of safety and attractive risk-reward profile in the debt stack."¹
- Bank of America: "We continue to see good value in securitized products credit relative to corporate credit, notably in credit risk transfer and CLOs."²

EXHIBIT 1

BB CLOs Offer Higher Yields Vs. BB Corporate Bonds

BB CLO Vs. BB Corporate Bond Yield³

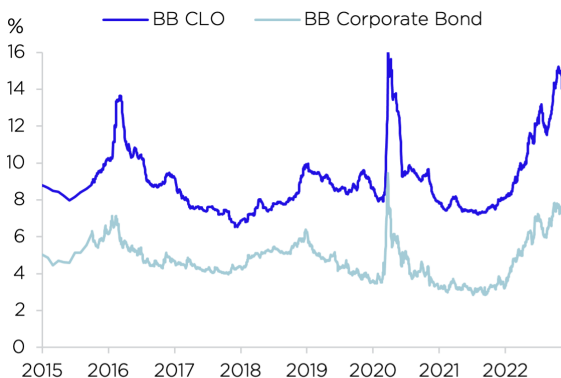
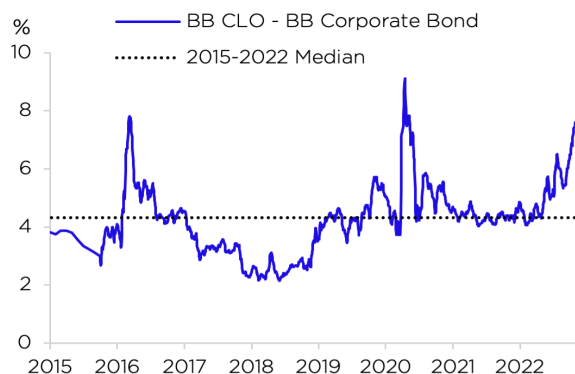


EXHIBIT 2

The BB CLO Vs. BB Corporate Bond Spread Gap/ Complexity Premium has Widened to Over 6% PA

BB CLO Minus BB Corporate Bond Yield



While CLOs offer higher yields vs. corporate bonds, a Federal Reserve Bank of Philadelphia study shows that CLO bond instruments have historically had lower default rates compared with the default rates on similarly rated corporate bonds.⁴ CLOs are backed by senior secured bank loans to corporations, which typically offer higher recovery rates compared with unsecured corporate bonds⁵; this relatively high collateral quality has helped to limit losses for CLO bond investors.

CLOs don't require investors to make material bets on the direction of interest rates

The floating rate nature of CLO bonds tends to reduce risks to investors in high inflation, rising interest rate environments. The BBB rated corporate bond index has suffered a 17% loss in 2022 year-to-date through November 18, 2022; by contrast, the BBB rated CLO index has experienced just a 5% loss, reflecting the relatively lower sensitivity of CLOs to interest rate market drivers including inflation and Federal Reserve policy shifts.⁶

The CLO asset class has become too large to ignore

CLOs have become a large asset class; in part because of the strong and stable historical performance of the sector, the US CLO market has grown so that over 65% of the \$1.4 trillion of leveraged loan debt outstanding is now owned within CLO vehicles.⁷ Reflecting the growth and maturation of the CLO asset class, a broad range of financial institutions - including banks, insurance companies, mutual funds, pension funds, private equity funds, private credit funds, and hedge funds - are now investing in CLOs.

Why do CLOs earn higher yields than comparably rated corporate bonds?

There are a few possible explanations for why bonds from the CLO sector consistently tend to earn higher yields in comparison with fixed rate corporate bonds. For one, while CLO liquidity has increased over time as the sector has grown, the bonds are not yet quite as liquid as generic corporate bonds. Second, CLO bond cashflows are determined by the performance of a pool of underlying loan assets, and so there may be a complexity premium vs. fixed rate bonds, which are simpler instruments with cashflows driven by a single underlying reference credit. Finally, we think the premium associated with CLOs in part reflects broad underinvestment in the sector, due to investor concerns that CLOs were connected to the problems associated with the global financial crisis. These concerns are, we think, misplaced; while CDO, RMBS and CMBS instruments indeed suffered high default rates in the 2007-2014 period, CLO structures performed far better, with low default rates and high realized returns.⁸

EXHIBIT 3

CLOs Offer Multiple Advantages Vs. Fixed Rate Corporate Bonds

CLO Vs. Corporate Bond Comparison

Feature	CLOs	Corporate Bonds
Estimated BB Yield ⁹	13.9% (Additional yield of 6.7%)	7.2%
5-Year Future Value of \$10M at Estimated BB Yield ¹⁰	\$19.2M (+92%)	\$14.2M (+42%)
Cumulative BB Return, 1/2012-11/2022 ¹¹	+122%	+69%
Interest Rate Risk	Low: CLOs are floating rate, with near-zero interest rate duration, and low price sensitivity to direction of interest rates and inflation	High: bonds are fixed rate with material (~4 years) rate duration, and tend to lose value in high inflation/rising interest rate environments
Drivers of Returns	Credit	Credit plus interest rates
Credit Quality	Senior secured loans with high recovery rates	Unsecured bonds with lower recovery rates
Market Size ¹²	Leveraged loans = \$1.4 trillion CLOs = 65% of Leveraged loans	HY corporate bonds = \$1.4 trillion



In light of the current high yields offered by CLO debt instruments, and the relative return stability of CLOs in periods of volatile interest rates, we think incorporating CLO debt can improve the risk/return profiles of many investors' portfolios.

1. Source: Morgan Stanley, 2023 US CLO Outlook: Margin of Safety, November 2022.
2. Source: Bank of America, Securitization Weekly, November 4, 2022.
3. Source: Bloomberg, BCBAYW BB Corporate Bond Index and Palmer Square PCLOBBY BB CLO Index, Pretium internal analysis; as of November 22, 2022.
4. Source: "CLO Performance", Federal Reserve Bank of Philadelphia Working Paper No. 20-48, November 2021, Table 7: Default Rates for CLO Tranches and Corporate Bonds.
5. Source: "Annual default study: After a sharp decline in 2021, defaults will rise modestly this year", Moody's, Exhibit 6, February 2022.
6. Source: Bloomberg, LCBITRUU BBB Corporate Bond Index and Palmer Square PCLOBBBT BBB CLO Index, Pretium internal analysis; as of November 18, 2022.
7. Source: BoA, US CLO Outstanding by Rating, as of November 23, 2022.
8. Source: CLO Performance Report, November 2022, Pretium Partners: <https://pretium.com/clo-performance-report>.
9. Source: Bloomberg, BCBAYW BB Corporate Bond Index and Palmer Square PCLOBBY BB CLO Index, Pretium internal analysis; as of November 22, 2022.
10. Source: Pretium calculation - BB annual yield compounded over a 5-year period.
11. Source: Bloomberg, BCBATRUU BB Corporate Bond Index and Palmer Square PCLOBBTR BB CLO Index, Pretium internal analysis; as of November 23, 2022.
12. Source: BofA CLO Factbook, Bloomberg LF98TRUU High Yield Corporate Bond Index, Pretium internal analysis; as of November 23, 2022.