

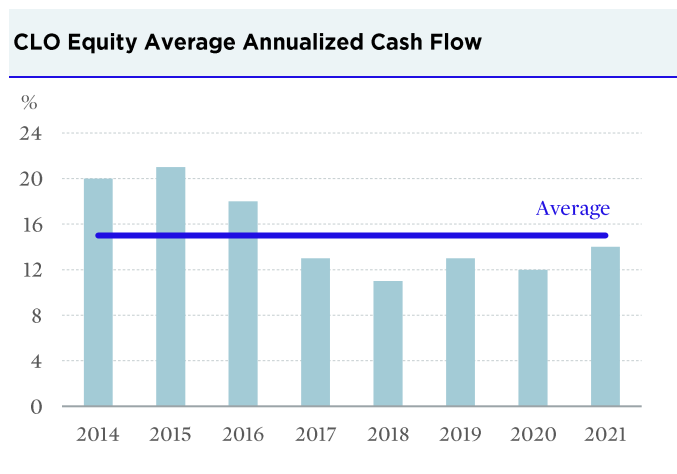
CLOs: Success Drives Growth

February 2022

The strong growth of the CLO market over the past decade owes its success to numerous factors -- the durability of term leverage structures, the up-in-quality bias of CLO loan portfolios, the demand for high-rated fixed income securities, and the growth of private credit markets have all played major roles. And perhaps most importantly, during a period where yields on public fixed income securities have fallen to unviable levels for many investors, CLO equity has continued to generate high annual cash flow (Exhibit 1).

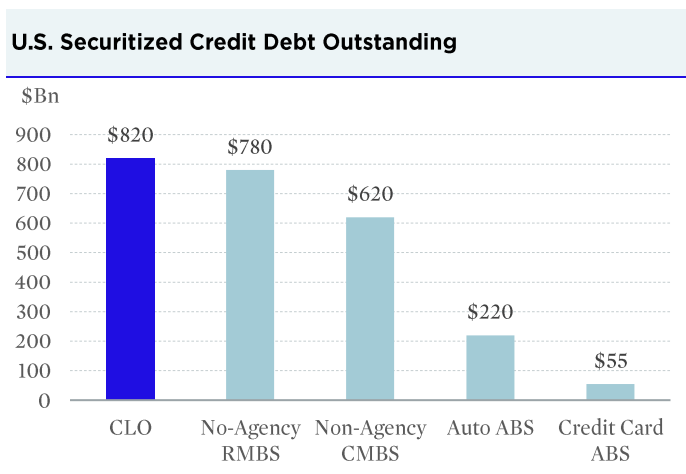
As arguably the most successful structured credit product over the past decade, CLOs owe a special debt to their unique design features. Whereas the global financial crisis (GFC) exposed the imprudence of funding long-term assets with short-term liabilities, CLO structures avoid this mismatch by funding assets with long-term non-recourse liabilities with fixed credit spreads. The wisdom of this structural feature was demonstrated during the GFC and again during the COVID-19 pandemic, during which the protection against forced selling by CLO managers was an important driver of the sector's strong performance.

EXHIBIT 1:



Source: Barclays Capital

EXHIBIT 2:



Source: BofA, SIFMA

These impressive performance characteristics have helped to grow the US CLO market to over \$800bn in debt outstanding, making it the largest securitized credit asset class in the US (Exhibit 2)¹. Growth of the CLO sector has also been driven by the rapid expansion of the US loan market more generally, which is now nearly as large as the US high yield bond market. Reflecting this maturation of the CLO asset class, an increasingly 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.

CLO equity tranches can offer double-digit returns, with cash flows distributable to investors starting in the first year of life of the investment vehicle. Exhibit 1 shows that since 2014 CLO equity tranches have distributed average annual cash flow in excess of 15%. These high dividends are generated without large allocations to distressed assets, as most CLO transaction documents include significant penalties for incorporating portfolio loans that are rated below CCC+ or have market prices below \$80. Rather, the impressive historical CLO equity returns are more a reflection of the impact of the stable term leverage built into the deal structures.

CLO equity investors also benefit from options embedded in the transaction structures, including the option to refinance the debt at lower interest rates and the option to actively manage the underlying loan portfolio through loan sales and purchases, which can further increase cash flows to CLO equity. Active management may help explain why historical default rates on CLO bonds fall below those seen for similarly rated credit instruments in other sectors. The strong credit performance of CLOs has been on display during the COVID-19 pandemic, during which period no CLO bonds rated BBB or above have experienced a default, and default rates on lower rated (BB and single-B) bonds have remained below 1%.

In summary, CLOs are a large and growing asset class, the success of which reflects a proven track record across several credit cycles. CLO equity is particularly attractive for investors who do not require daily liquidity, and who seek high returns and consistent, sizable quarterly distributions.

¹The global CLO market now exceeds \$1tn of outstanding balance.

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Jerry Ouderkirk is a Senior Managing Director and Head of Structured Credit at Pretium, where he has overall responsibility for the Firm's corporate credit platform. In addition to overseeing and expanding the Firm's CLO platform, Mr. Ouderkirk is building out numerous investing businesses across structured credit including Structured Corporate Credit and Distressed/ Opportunistic Credit. Mr. Ouderkirk joined Pretium in 2017 with 20 years of experience building and committing capital around structured credit products and platforms. Prior to joining Pretium, Mr. Ouderkirk was a Partner at Goldman Sachs, where he started the Institutional Lending Group for Goldman Sachs Bank USA which oversaw the Firm's discretionary lending and investing in the bank. He previously served as Global Co-Head of Structured Credit Trading, where he oversaw multiple capital committing businesses and started Goldman's CLO Trading business, which he ran for more than 12 years. Mr. Ouderkirk is a member of the Firm's Executive Committee. He received a BA with honors in English and Economics from Colgate University. Mr. Ouderkirk serves on the Board of CitySquash in New York.

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Charlie Himmelberg is Senior Managing Director and Head of Macro Research at Pretium, where he has overall responsibility for global market research across all of the firm's strategies, including real estate. Mr. Himmelberg joined Pretium in 2020 with more than 25 years of experience in mortgage, credit, market, and policy research. Prior to joining Pretium, he spent 15 years at Goldman Sachs & Co., most recently as Partner & Managing Director, Global Investment Research, responsible for the global market research teams in rates, FX, credit, mortgages, EM and macro equity; previously, he was head of global credit and mortgage research. Prior to joining Goldman, Mr. Himmelberg had a distinguished career in policy research and academia at the Federal Reserve Bank of New York, Columbia University, New York University, and The University of Chicago. Mr. Himmelberg is a member of Pretium's Executive Committee. He received a BA in Economics and a BS in Mathematics from the University of Kansas, and a PhD in Economics from Northwestern University. Additionally, he serves as a trustee of St. Peter's Catholic Church.

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Marty Young is a Director on the Pretium Macro Research team, where he conducts research on residential real estate and structured credit. Prior to joining Pretium, Mr. Young was the head of securitized credit research at Goldman Sachs, the head of mortgage credit and prepayment modeling at Freddie Mac, and an Associate Professor of Statistics and Management Science at the University of Michigan School of Business. Mr. Young received a bachelor's degree in Systems Engineering from Case Western Reserve University, and a Ph.D. in Statistics from the University of Michigan.

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