PGIM FIXED INCOME

The Compelling Case for Global Senior CLOs

PERSPECTIVES | FEBRUARY 2022

EDWIN WILCHES, CFA
Co-Head Securitized Products

RONNI NEEMAN, CFA, FSA
Head of CLO Research

CONNOR BYRNES
Securitized Products

DHEERAJ SHARMA, CFA
Securitized Products

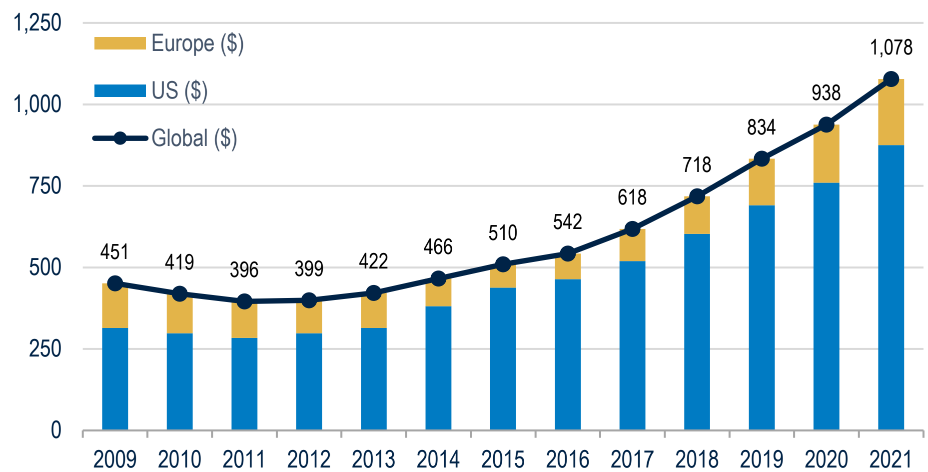
- The case for global AAA and AA CLOs is simple. As the senior-most, highest-rated tranches in the CLO capital structure, AAA and AA tranches benefit from strong structural protections and historically low defaults. These securities can offer attractive relative and absolute value for global fixed income investors seeking yield-enhancing investments and attractive risk-adjusted returns.
- Fundamentally, securitized products are an alternative means of financing assets. Investors at the top of the capital structure provide financing to equity investors at the bottom of the capital structure, and investors in the mezzanine tranches exist in between.
- Senior CLO tranches typically offer higher-than-average spreads when compared to sectors with similar credit quality as well as historically low credit migration risk.
- Active managers with strong leveraged finance and securitized credit research capabilities, along with structuring expertise, are well positioned to capture relative value opportunities and pricing inefficiencies across the global market for senior CLO tranches.
- Leveraged loans and collateralized loan obligations became a focal point in 2021 amid investors' concerns about duration exposure and rising central bank policy rates. Given this interest, the following pages revisit the key attributes that make senior CLO tranches one of the more compelling asset classes in global fixed income.
- ESG considerations represent a transformative force in the industry. CLO tranche investors, with the appropriate capabilities, can utilize rich datasets and manager access to rate and potentially influence ESG factors across their investments. While the analysis may be complex or burdensome, investors with robust technology platforms and internal processes are able to differentiate between CLO managers, underlying portfolios, structures, and documentation.

A GLOBAL $1 TRILLION, TIME-TESTED ASSET CLASS

The recent, heightened focus on floating-rate assets, search for high quality yield, and need for greater overall portfolio diversification has been accompanied by record gross CLO formation of about $500 billion in 2021, which lifted the sector's global market value to more than $1 trillion after two decades of consistent growth (Figure 1).

Alongside outsized new issuance, an active secondary market continues to be a strong source of liquidity for CLO investors, affording active managers with ample opportunities to capture value. For example, the liquidity of CLOs was tested during the height of the COVID-induced market selloff when over $27.5 billion of US CLOs traded in March 2020 as many other credit sectors struggled to transact.

Figure 1: The global CLO market crossed the $1 trillion threshold in 2021



Source: J.P. Morgan, as of February 2022.

In addition to the resilient liquidity of the secondary market, the virus-related volatility demonstrated the combined benefits of strong structural protections and seniority in the capital structure (i.e., credit enhancement) as the senior tranches continued a stretch of minimal defaults over their 20-year history. Since Standard & Poor's started rating CLO tranches, only one senior CLO tranche has ever defaulted—a technical default of a U.S. AA "vintage 1.0" CLO—which was subsequently upgraded and never suffered an economic loss. (Figure 2).

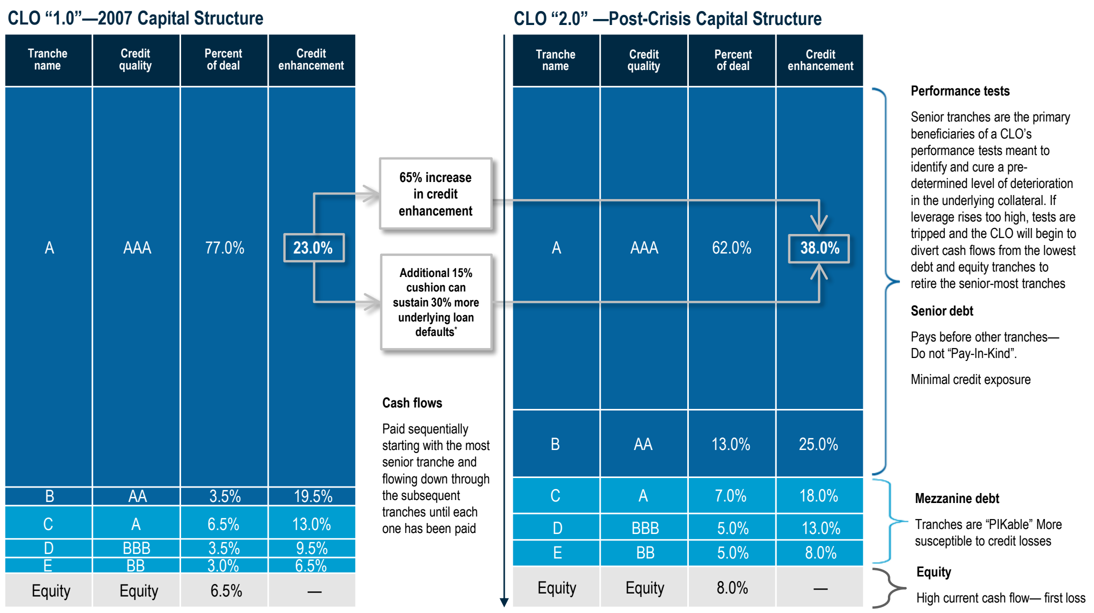
Figure 2: AAA and AA CLOs have a strong history of low defaults

	CLO 1.0			CLO 2.0		
	# original ratings	# defaults	# currently rated	# original ratings	# defaults	# currently rated
AAA	2,012	0	0	2,883	0	1,472
AA	838	1	0	2,435	0	1,358
A	1,029	5	0	1,949	0	1,114
BBB	1,072	13	0	1,747	0	1,063
BB	770	39	6	1,500	0	924
B	39	4	0	533	0	339
Total	**5,759**	**62**	**6**	**11,047**	**0**	**6,270**

Source: S&P Global Ratings 2020 Annual Global Leveraged Loan CLO Default and Rating Transition Study, September 1, 2021. As of Year-End 2020.

Since then, CLO structures have benefited from a number of structural improvements, including additional credit enhancement (Figure 3), stricter limits on the underlying portfolio composition, and more restrictive, debt-friendly covenants.

Figure 3: Evolution of the CLO capital structure



Source: PGIM Fixed Income. Shown for illustrative purposes only. * Assuming a loan recovery of 50%.

LOSS REMOTE TRANCHES: SENIOR CLOs

One reason AAA and AA CLOs continue to trade at what we consider to be wide spreads is the tendency of some investors to conflate CLO tranches with similar sounding, distantly related asset classes (such as ABS CDOs), which suffered losses in prior economic downturns. However, senior tranches of CLOs proved resilient during the global financial crisis and again during the most recent COVID-induced crisis. In fact, history and ex-ante stress tests show that senior CLO tranches are extremely loss remote given their very high level of credit enhancement.

While the CLO market has been around for over two decades, we recognize that a true corporate default cycle has not occurred in earnest over that period. Thus, we attempt to understand how structures may have performed in longer periods by utilizing the rich data set found in corporate credit dating back to 1920s. We simplify our analysis to gain some intuition on potential market-wide losses even as we acknowledge that dispersion across CLO managers is very high and arguments for exceptions are valid. We also use the CLO 2.0 structure as a starting point as we are attempting to gain perspective on current structures and not pre-2008 deals.

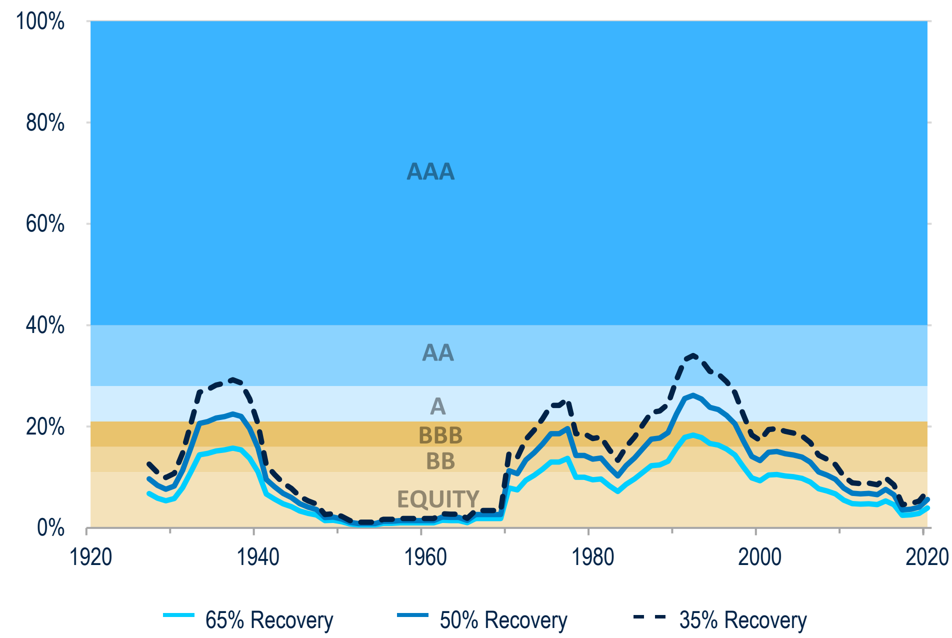
Figure 4 shows inferred annualized loss rates on single-B rated corporates from 1920 to today. We infer these loss rates by starting with annual historical default rates of U.S. single-B rated corporates and applying a constant severity rate to estimate cumulative net losses over an eight-year time horizon (the typical modeled average life of debt tranches of a CLO). We believe using a cumulative net loss metric over time is more appropriate than simply analyzing one-year spikes as default rates are seldomly constant or accurately forecasted. Moreover, we stylized the analysis by using three separate recovery rate assumptions to drive our net loss estimates.

Historically, the loan market has experienced a 65% recovery (or 35% loss) upon default. However, given recent recovery rates and current market quality, our leveraged finance team believes that recoveries will likely be in the 50-55% range going forward. Therefore, we chose three potential recovery rates to illustrate potential losses across the capital structure, and to underscore how critical the recovery rate of loans will be for the fate of certain mezzanine tranches in the CLO capital structure if and when we experience a corporate credit driven default cycle. We understand there are also structural nuances that may help offset or delay losses—most notably for the AA and A tranches.

The light blue line below shows the resulting historical rolling eight-year cumulative-loss rate using the historical average leveraged loan recovery rate of approximately 65%. The horizontal lines show typical credit enhancement levels for AAAs, AAs, As, BBBs, and BBs, respectively. As the light blue line illustrates, on an aggregate basis, the worst cumulative inferred eight-year loss rate in B-rated leveraged loans would have approached the typical attachment point on A-rated CLOs only once in nearly a century.

Figure 4: History suggests senior CLOs to be extremely loss remote

Current CLO structure in historical credit downturns



Source: Moody's Investors Service, PGIM Fixed Income. This simplified analysis does not fully incorporate CLO features that, in stress, divert cashflow to the senior most tranches at the expense of the mezzanine tranches. It also ignores potential credit migration and active management of the collateral.

Using a lower loan recovery rate of 50%, which, as stated above, we believe is more appropriate due to structural changes in the loan market in the last decade, the medium blue line shows the worst cumulative inferred eight-year loss rate in B-rated loans would have exceeded the typical attachment point on A-rated CLOs just once in nearly a century (suggesting full impairment of all other tranches). Using a "stress" case recovery rate of 35%, which is more typical of B-rated high yield bonds, the dark blue dotted line shows that the inferred loss rate would have exceeded the typical AA-rated attachment point once in nearly a century. Interestingly, this study shows that some mezzanine investment grade tranches are more likely to take a loss than many in the market are willing to concede given the very benign (by historical) default rates we've seen across corporates in the last two recessions. While the effects of the financial crisis of 2008 were profound, losses were focused on the mortgage market and largely liquidity driven. We expect to see a potentially different outcome, mainly higher cumulative net losses, if and when there is a corporate-led recession.

Most importantly, the eight-year cumulative loss rate does not come close to threatening the AAA attachment point in this analysis—even before factoring in CLO structural nuances, such as excess spread and performance tests. This is largely due to the high levels of credit enhancement (approximately 38%) found in deals today.

Moreover, in addition to current par subordination, CLO tranches also benefit from the self-healing mechanism of diverting interest and principal payments, which further increases loss-protection during times of stress. As Figure 5 shows, the cash flow diversion features of a CLO and credit subordination provide a more than ample cushion to insulate senior CLO investors from most plausible loss scenarios, and actually causes principal to be returned to investors even quicker than expected in times of extreme stress. As a AAA-tranche stress test, if we assume a 100% default rate of the underlying loan collateral and a 65% loan recovery rate, AAA-tranche holders would not incur any loss of principal. Assuming a highly stressed 35% recovery rate on defaulted loans, it would require a 23.4% annual default rate each year for the remaining life of the transaction (approximately 2.6 years) in order for AAA-tranche holders to incur the first $1 loss of principal. For AA-tranche investors to incur a loss under the same recovery rate assumption, it would require an annual default rate of 14.4% for approximately six consecutive years. An important item to note is the shortening of the AAA WAL to under three years in a stress-case scenario as cashflow is diverted to the senior-most class when certain CLO debt covenants are breached.

Figure 5: Senior CLOs well cushioned from potential losses

		Market experience	Scenario analysis		Annualized default rate required, at given severity, to lose $1 of principal		
Assumption item		Long run hist. avg.	2009 extended	1933 extended	Breakeven at 35% severity	Breakeven at 50% severity	Breakeven at 65% severity
Annualized prepayment rate (%)		20	10	10	10	10	10
Annualized default rate (%)		2.8	12.1	15.8	n/a	37.9	23.4
Annualized recovery rate (%)		65	65	65	65	50	35
AAA class (Par sub 38.3%, coupon L+116 bps)	**Yield** (%)	2.84	2.50	2.44	n/a	2.39	2.55
	WAL (# of years)	6.06	2.58	2.27	n/a	1.87	2.62
	Tranche writedown (%)	0.000	0.000	0.000	n/a	0.001	0.001
Annualized prepayment rate (%)		20	10	10	10	10	10
Annualized default rate (%)		2.8	12.1	15.8	38.6	21.2	14.4
Annualized recovery rate (%)		65	65	65	65	50	35
AA class (Par sub 25.3%, coupon L+170 bps)	**Yield** (%)	3.46	3.32	3.31	3.26	3.35	3.38
	WAL (# of years)	7.92	5.02	4.83	4.24	5.55	6.08
	Tranche writedown (%)	0.000	0.000	0.000	0.001	0.001	0.001

Source: PGIM Fixed Income as of January 2022. Information is provided for informational purposes only to illustrate our stress test process. These examples are not actual results. Actual results may vary substantially. It is not an offer or solicitation to buy or sell any securities.

HISTORICALLY LOW RATINGS VOLATILITY

As many investors are aware, mark-to-market losses due to forced selling generally precede any actual incidences of loss due to default, with rating agency downgrades being a frequent catalyst. Figure 6 shows the 10-year ratings transition rates for AAA and AA CLOs from 1993 through 2020. For CLO tranches originally rated AAA, the downgrade percentage was 1.63% and the downgrade percentage to non-investment grade was 0.14%. We believe the historically low ratings volatility of senior CLO tranches underscores their value as a core holding in multi-sector or LDI (liability driven investing) fixed income portfolios as they don't suffer from the comparable losses seen in other investment grade rated securities due to negative credit migration. We believe the historical ratings stability is due, in part, to the relatively high levels of subordination and diversity of the underlying collateral and we expect ratings stability in the senior parts of the capital structure to persist.

Figure 6: AAA and AA CLOs have experienced relatively few downgrades

Moody's: U.S. CLO 10-year ratings migration (%)

U.S. CLO RATING TRANSITION MATRIX*

10-years long average rating migration rates: Jan. 1, 1993 - Dec. 31, 2020

Original Rating	Rating Transition To: Aaa	Aa	A	Baa	Ba	B	Caa-C	Impairment**	Downgrade to non-IG	Downgrade
Aaa	98.13	1.53	0.26	0.00	0.00	0.09	0.00	0.00	0.09	1.87
Aa	83.08	15.09	0.76	0.61	0.46	0.00	0.00	0.00	0.46	1.83
A	62.10	14.58	19.24	3.35	0.15	0.29	0.15	0.15	0.73	4.08

Moody's: U.S. Corp 10-year ratings migration (%)

U.S. CORP RATING MIGRATION***

10-years long average rating migration rates: Jan. 1, 1993 - Dec. 31, 2020

Cohort Rating	Rating Transition To: Aaa	Aa	A	Baa	Ba	B	Caa-C	Def	Downgrade to non-IG	Downgrade
Aaa	67.59	18.08	10.98	3.35	0.00	0.00	0.00	0.00	0.00	32.41
Aa	2.94	38.20	43.16	12.81	1.68	0.25	0.35	0.63	2.90	58.86
A	0.45	7.47	53.46	30.11	4.07	1.87	0.39	2.18	8.52	38.63

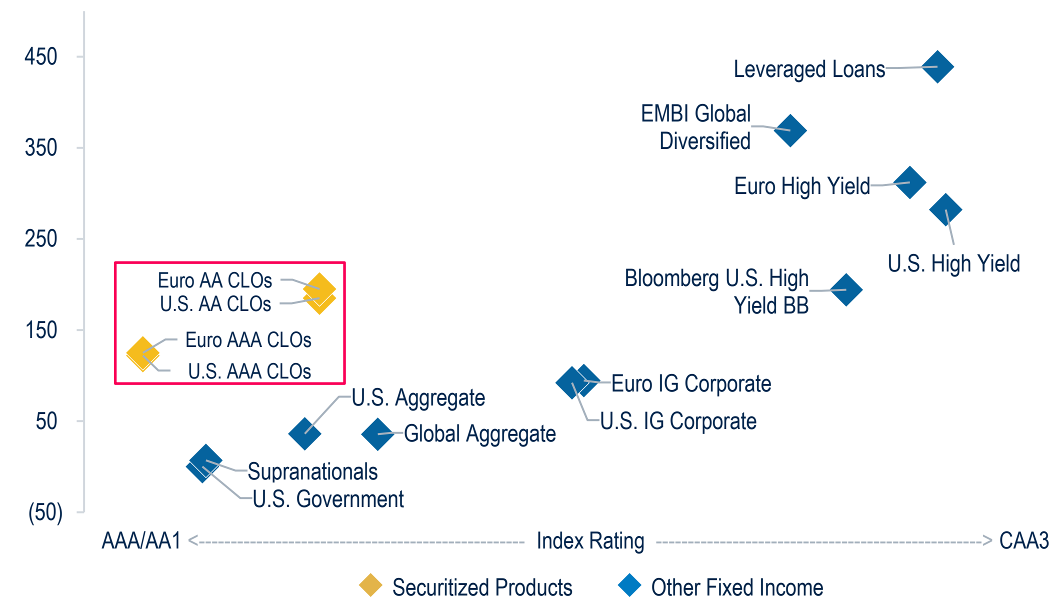
* Moody's "Structured Finance - Global: Structured Finance Rating Transitions:1993 - 2020"
** Moody's "Ratings Symbols and Definitions," February 2019, Impairment includes all events that meet definition of default.
*** Moody's Default and Rating Analytics, Historical Rating Transitions, withdrawals excluded.
Note: The global CLO rating transition and corporate rating migration tables were not derived from the same source. The underlying methodologies are not be identical due to the use of original versus cohort ratings although we believe the information is comparable.

CLOs VERSUS OTHER RISK ASSETS

While senior CLOs can offer investors a compelling safe haven from a fundamental credit perspective due to strong structural protections, they can also offer comparatively high risk-adjusted returns and are, at times, amongst the most attractive assets across fixed income. When spreads on a variety of fixed income investments are plotted relative to their external credit rating, as depicted in Figure 7, AAA and AA CLOs stand out as they offer not only some of the widest spreads of any highly-rated investments, but also compelling value relative to assets of lower credit quality. While the same may be inferred if we plotted other lower-rated CLO tranches, we do not believe the market is pricing in potential impairment, PIK, or negative ratings migration risk given the lower quality of underlying loan market. In fact, our internal credit ratings for lower-rated tranches are usually well below the external ratings.

Figure 7: Senior CLOs present attractive risk-adjusted value

Option adjusted spread (OAS)(bps) vs. index rating



Note: Past performance is not a guarantee or a reliable indicator of future results. Please see the Important Information section for important disclosures. Source: Bloomberg Barclays, J.P. Morgan, Bloomberg, as of December 31, 2021. Performance over one-year is annualized.

We believe the cheapness found in senior CLO spreads relative to other fixed income investments reflect a variety of factors, many of which are unrelated to credit risk and are more technical in nature. These include:

REGULATORY ENVIRONMENT

The ever-changing regulatory landscape introduces additional complexity, along with opportunities, for investors. While the regulatory frameworks adopted across the U.S., Europe, and Asia have varied by both jurisdiction and institution (insurance, banking, pension, etc.), one common thread of legislation, most notably captured by the post 2008 Dodd-Frank rules in the U.S., was an increase in capital requirements for large money center banks in order to help preserve the soundness of financial markets during downturns. Amongst many impacts, these regulations, via high capital charges, increased the availability and the cost of "repo" that many yield-seeking investors desire. Given that senior tranches in a securitization are a form of financing for levered investors, we believe that AAA CLO spreads remain attractive due, in part, to the inability of banks to finance, or "repo," at tighter levels. This pushes investors who need leverage to turn to the CLO market as a lender of last resort. While banks continue to finance assets today, the size of this activity is much smaller than it was pre-2008 as balance sheet capacity is scarcer.

THE LACK OF INCLUSION IN BROAD MARKET INDICES

CLOs are not represented in commonly used fixed income benchmarks, such as the Bloomberg Global Aggregate Index, the Bloomberg U.S. Aggregate Index, or the Bloomberg Universal Index, as they do not satisfy all inclusion rules, most notably the requirement of being a fixed-rate security. Not only does this preclude passive funds and many ETFs from investing in CLOs, it also requires an active asset allocation decision by investors or their asset managers to make a purchase. While we continue to see most of the largest institutional investors actively participate in the CLO market, many pools of capital remain on sidelines due to some inherent preference for "hugging the benchmark."

COMPLEXITY

Given the actively-managed nature of the underlying collateral, investing in CLOs relies on a multi-disciplined set of expertise where investors must analyze the underlying collateral, interpret non-standardized transaction documents, and properly assess CLO managers. While the underlying assets of CLOs are generally well diversified, investors must still understand the nature and quality of the underlying assets. Having a view on ex-ante performance is critical to determining the value of tranches and appropriately modeling future cash flows. Additionally, the dearth of standardization in CLO documentation relative to other securitization asset classes adds another layer of inefficiency—and opportunity—as each deal may have uniquely negotiated terms. Moreover, it is also important to understand the capabilities of the CLO manager given the great dispersion in the performance of underlying collateral pools. Assessing team, credit skills, and investment style are all important aspects of CLO manager diligence. Lastly, given the vast amount of transparency CLO investors receive, along with data, it is critical to make significant investment in systems and technology in order to properly perform ongoing surveillance and identify relative value opportunities. Due to their relative complexity and high information barriers, senior CLOs have traditionally been the province of large commercial banks, institutional asset managers, insurance companies, pension funds, and endowments.

SUPPLY

While demand for CLOs has remained robust, supply has nearly kept apace. For example, U.S. and European net issuance totaled $95 billion and €25 billion, respectively, in 2021, while gross issuance exceeded $400 billion and €100 billion, respectively. While 2021 proved to be a particularly strong year for CLO formation, the increase in supply to meet investor demand is not atypical for the asset class. Unlike other forms of securitization where the underlying collateral may be hard to source or limited in quantity (e.g., residential or commercial real estate), CLOs can acquire assets relatively quickly in the open market in order to meet any uptick in investor demand. This is due, in large part, to the fact that a CLO is not created to provide balance sheet relief or is an "originate to distribute" product, but rather is an arbitrage vehicle. Underlying loans are sourced in the open market and returns are generated from excess interest collected in the asset pool and not from the securitization itself (from commissions or fees). CLOs generally own the same loans that many retail mutual funds and large institutional investors own in separately managed accounts.

ESG CONSIDERATIONS WHEN INVESTING IN CLOs

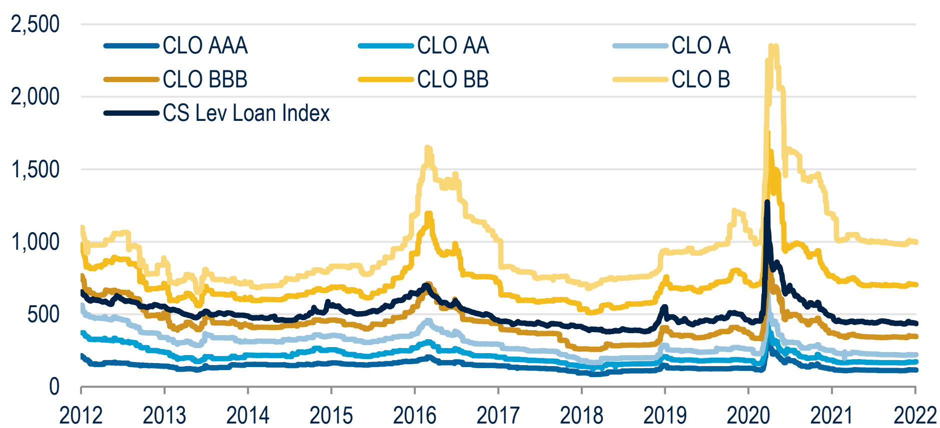
Environmental, Social and Governance (ESG) considerations represent a transformative force in our industry. Investors across the globe are increasingly aligning their asset allocation and investment processes to reflect their ESG priorities, which will impact relative value across asset classes. The global CLO market is no exception and has seen increased focus on ESG recently, as noted by the heightened frequency of the "ESG CLO" label being used to denote the inclusion of negative screening criteria (exclusion of certain assets from eligibility) as well as positive selection criteria in which the CLO's collateral manager actively seeks to invest in ESG-positive credits. While the CLO market is still in the early stages of ESG adoption and current pricing levels do not differentiate between favorable practices and "green-washing," our team is keenly aware that increased focus on ESG factors by investors could create a bifurcated market with better liquidity and pricing afforded to managers and deals that include ESG criteria.

CLOs (and securitized assets more broadly) are unique relative to other asset classes, as they require both a deep analysis of the underlying collateral as well as an assessment of the impact from the respective collateral manager, structure, and legal documentation. Given the diversity of underlying collateral, issuers, and structures, it is important to have the ability to engage with issuers and third-party providers to attain greater transparency and maintain a technology platform to help aggregate and synthesize data to determine ESG impact. In addition to analysis of CLO managers from frequent and pointed interactions, our team also maps all underlying loan assets to PGIM-generated ESG ratings to ascertain an objective baseline score on any underlying CLO portfolio. This helps to weigh both the intent and the actions of each CLO manager as it pertains to ESG factors.

RELATIVE VALUE WITHIN THE CLO CAPITAL STRUCTURE

Senior CLOs also exhibit far less spread volatility than their lower-rated, mezzanine counterparts. Figure 8 shows the nominal spreads for different tranches in the CLO capital structure. Notably, the volatility in CLO spreads is not simply a question of the financial crisis and its immediate aftermath. Rather, mezzanine spreads have shown repeated sensitivity to global bouts of risk-on/risk-off sentiment, most recently during the 2015/2016 energy bust and during the heights of the COVID crisis. While senior CLOs are not immune to volatility, their historical spread stability is further testament to their attractive, risk-adjusted return profile.

Figure 8: Senior CLOs have shown less spread volatility relative to other tranches and underlying collateral



Source: J.P. Morgan and Credit Suisse as of February 2022.

HIGHER SHARPE RATIOS…

Although lower-rated CLO tranches have generally outperformed higher-rated tranches, heightened spread volatility in the lower-rated tranches has resulted in notably lower Sharpe ratios and higher realized beta to the underlying pool of leveraged loans than senior CLOs. As observed in Figure 9, BBB CLOs exhibited a Sharpe Ratio of just 0.74 compared to 1.12 for AAA CLOs and 0.88 for AA CLOs from January 2012 through December 2021.

For investors concerned about drawdown risk, Figure 9 highlights another benefit of senior CLOs relative to mezzanine tranches. The maximum drawdown on AAA and AA CLOs was just

160 bps and 532 bps, respectively, over any 12-month period, while BBB CLOs suffered a maximum drawdown of over 16%.

… AND LOWER BETA

A final point worth highlighting from Figure 9 is the beta analysis. Intuitively, the further down the capital structure one invests, the more exposure one gains to the underlying collateral. The beta column in Figure 9 shows the return sensitivity of each sub-index relative to the returns of the Credit Suisse Leveraged Loan Index. For example, the beta of 0.38 for the AAA index means that AAA returns declined 38 bps for a 100 bps decline in the Credit Suisse Leveraged Loan Index. In contrast, the structurally-leveraged, B-rated index exhibited a 264 bps decline for a 100 bps decline in the Index.

Somewhat less intuitive, BBB-rated CLOs register nearly twice the return sensitivity to leveraged loans (a beta of 1.71) despite carrying a higher credit rating than the leveraged loan index itself. More notably, the BBB tranche's beta to the underlying bank loan market during periods of volatility has been about 3.41 times. This reflects both the market's acknowledgement of lower liquidity in mezzanine CLOs and more importantly the structural, embedded leverage a BBB tranche has given the binary nature of outcomes (if cumulative net losses exceed ~18% the tranche is fully impaired).

This underscores an important consideration for CLO investors—that mezzanine CLO tranches frequently represent an inefficient means of expressing a leveraged view on the underlying collateral. It is generally, but not always, our view that investors seeking leveraged loan exposure are better served by purchasing leveraged loans directly rather than subordinated CLO tranches. Investors looking to finance purchases of loans should consider using beta analysis to assess the sensitivity of their potential investment to fluctuations in the value of the collateral being financed.

Figure 9: Senior CLOs exhibit higher Sharpe ratios and lower beta to underlying collateral

	Gross Total Return (%)		Standard Deviation S.I. (%)	Sharpe Ratio	Empirical Beta to Loans S.I.	Max 12-mo Rolling Beta to Loans	Max 12-mo Drawdown (%)
Index	YTD	Annualized S.I.					
AAA CLO	1.40	2.32	2.08	1.12	0.38	0.60	-1.60
AA CLO	2.09	3.43	3.88	0.88	0.71	1.13	-5.32
A CLO	3.13	5.05	5.70	0.89	1.02	2.13	-8.21
BBB CLO	4.30	7.20	9.68	0.74	1.71	3.41	-16.55
BB CLO	11.20	10.43	16.51	0.63	2.71	5.83	-30.18
B CLO	28.43	13.75	19.88	0.69	2.64	7.51	-42.16
CS LL Index	5.40	4.83	5.07	0.95	1.00	1.00	-9.51

Past performance is not a guarantee or a reliable indicator of future results. Please see the Notice for important disclosures. Since Inception = SI. Shown for illustrative purposes only. Source of Index data: J.P. Morgan, Credit Suisse. The figures shown above are calculated using monthly data from January 2012 through December 2021. The JPM CLO (CLOIE) Index starts in January 2012.

AAA INVESTORS INFLUENCE THE CAPITAL STRUCTURE

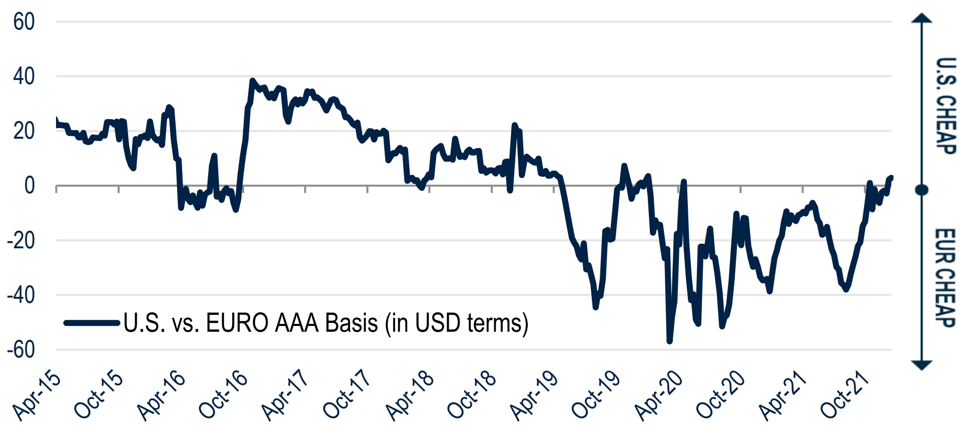
Another important consideration for CLO investors pertains to structural governance. Unlike other securitized investments, senior CLO investors are frequently able to negotiate additional debt-friendly covenants with respect to underlying collateral and cash flow triggers. With respect to collateral, the PGIM team frequently requests tighter eligibility criteria, better ESG considerations, and concentration limitations. Additionally, favorable contractual rights typically provide AAA investors a voice, and in some cases a veto, on amendments and other actions that could impact deal cash flows. This represents a meaningful improvement over the governance of other securitized and corporate investments.

Moreover, senior CLO investors with the scale to invest in size can often achieve favorable pricing power. Highlighting these benefits, AAA anchor investors can often negotiate wider spreads, better call-protection, more credit enhancement, and/or original issue discounts.

THE BENEFITS OF GOING GLOBAL

In comparison to the U.S. market, the European CLO market is smaller and at times offers more spread at the senior part of the capital structure. This spread differential highlights the importance of looking at CLOs globally and the benefits that an active manager with size, experience, and global reach can bring to this complex sector. Despite efforts at regulatory coordination, different regulations in the U.S. and Europe create inefficiencies and mispricings between the two markets. (Figure 10)

Figure 10: Spread differentials in global CLOs create relative value opportunities for active managers



Source: PGIM, J.P. Morgan as of December 31, 2021.

Divergent central bank policies are another source of profitable misalignments between U.S. and European CLOs. The crossover buyer base, while growing, remains small, which allows cross-border, relative-value gaps to persist long enough for those with both the expertise and scale to capitalize on pricing inefficiencies between the two markets.

OPPORTUNITY FOR ACTIVE MANAGERS

Though sharing similarities, CLOs differ by manager, structure, underlying loan portfolio, covenants, and tenor, with the market pricing each accordingly. In benign market environments we see the "basis" between even AAA tranches to range between 10-15 basis points. However, in times of market stress, this premium becomes even more pronounced as investors more closely value underlying collateral performance, structural nuances and tranche covenants that affect deal cash flows. As Figure 11 shows, the secondary market spread differential between top-quartile and bottom-quartile performers widens significantly during broad market selloffs such as those seen in March 2020.

Figure 11: Dispersion widens in times of stress

AAA DM dispersion (75th percentile – 25th percentile, bps)

Source: PGIM, J.P. Morgan as of January 31, 2022.

Therefore, differentiation across manager quality, underlying collateral pool, and deal structure, creates pockets of opportunity for active investment managers with the expertise to understand both a CLO's capital structure and individual structural characteristics, as well as the experience to differentiate between CLO managers. To best capture relative value opportunities and pricing inefficiencies in the CLO market, investment managers require significant research capabilities in order to accurately assess value across geographies, between individual CLOs and their managers, and up and down the CLO capital structure.

CONCLUSION

Senior CLOs may offer compelling value versus a variety of fixed income alternatives on the basis of their robust structural protections, higher-than-average spreads, high Sharpe ratios, low betas to the underlying pool of investments, and favorable drawdown history. While offering investors a compelling safe haven from a fundamental credit perspective, senior CLOs can also offer comparatively high risk-adjusted returns. Their cheapness relative to other fixed income investments reflect a variety of factors, including the tendency of some investors to conflate CLOs with similar sounding asset classes, as well as their relative complexity and an ever-changing regulatory environment. While a dearth of standardization and divergent regulatory environments create an added layer of inefficiency, active managers with the size, scale, and expertise are likely well positioned to capture relative value opportunities across the global CLO market.

NOTICE: IMPORTANT INFORMATION

Source(s) of data (unless otherwise noted): PGIM Fixed Income as of February 2022.

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