

CLO Conference Notes 2022

Mark Adelson

Mark Adelson

is an independent consultant, the editor of *The Journal of Structured Finance*, and the content director at Portfolio Management Research in New York, NY. m.adelson@pm-research.com

KEY FINDINGS

- The outlook for the CLO sector is cautiously optimistic. Issuance for 2022 will likely be somewhat less than in 2021.
- Inflation, rising interest rates, and the possibility of a recession are key challenges for the market in the near term.
- Credit fundamentals are weakening. Leveraged borrowers are carrying somewhat higher debt loads than in recent years. Additionally, many borrowers have little or no subordinate or second-lien debt to provide a layer of protection for senior/first-lien lenders.

ABSTRACT

The **11th Annual Investors' Conference on CLOs and Leveraged Loans** attracted more than 800 market participants and was held on May 23–24, 2022, at the Marriott Marquis hotel in New York City. Key themes at the conference included: 1) the ability of collateralized loan obligation (CLO) managers to deal with evolving conditions, 2) headwinds from inflation, rising interest rates, and the prospect of recession, and 3) the incorporation of environmental, social, and governance (ESG) considerations into CLOs. On the legal/regulatory front, the development that received attention in multiple sessions was the SEC's proposed rule for private funds. The panels generally conveyed a cautiously optimistic outlook for the CLO sector, but they expect that issuance for 2022 will be below last year's levels.

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The following summaries reflect the remarks of the speakers and panelists who participated in selected sessions of the event. For the most part, the summaries are drawn from notes I took listening to recordings of the sessions. Unless otherwise indicated, the summaries reflect the panelists' remarks and not my views. The summaries have not been reviewed or approved by the panelists. Although I have tried to capture panelists' remarks accurately, I apologize in advance for any inaccuracies and omissions. The exhibits interspersed among the summaries were added by me and are not exactly the same as the slides shown by the panelists in their presentations. I wish to acknowledge the excellent work of Information Management Network in organizing and hosting the conference.

MONDAY, MAY 23, 2022

12:30 pm: KEYNOTE: Economic Outlook for Financial Markets

The US economy is holding up well under the circumstances. The economic impact from the Covid-19 omicron variant has not been severe. The Russia–Ukraine conflict creates significant uncertainty and, particularly, supply chain issues for the United States. Consumer confidence is at a very low level. On the other hand, the United States and Canada both have substantial cushions to absorb shocks. Labor markets are strong. The US economy is mostly domestic; therefore, it has limited exposure to international stresses. Also, there are available substitutes for many of the products that are caught in supply chain issues. A major headwind for the United States is rising interest rates.

The projection for 2022 US economic growth has been revised downward to 2.4% from 3.2%. Projected growth for 2023 is 2%. The likelihood of a recession in the near term is 30%. The federal funds rate is projected to reach 3.25% by the start of 2023. However, there are risks that it will go higher. Inflation is a key risk.

The level of US household debt has recently increased, but it still remains well below the level before the 2008 financial crisis.

The great majority of recent credit rating downgrades are associated with the Russia–Ukraine conflict. Many areas are not affected. However, some important sectors are, such as automobile manufacturing, which uses Russian-sourced palladium. Aircraft production is also affected by the conflict because Russia is a key source of titanium.

The US labor market is very strong according to multiple measures. Leisure activities—dining, entertainment, and travel—are starting to bounce back.

Stagflation is a possibility—high unemployment combined with high inflation.

S&P expects speculative-grade defaults of 3% for 2022. The downside scenario would be double that.

1:15 pm: Mark, Set...CLO: Market Recap and Outlook

One panelist explains that the past six months have been very difficult for CLOs and that the coming months could also be tough. Anticipated rate hikes by the Federal Reserve are a major challenge. Even so, CLO returns remain appealing compared to returns on corporate debt. CLO issuance for 2022 is likely to be significantly down from the level in 2021. Within the capital stack, the panelist favors double-A-rated and single-A-rated tranches and recommends a defensive posture favoring top-tier managers and strong collateral.

The current issues are supply chains, a tight labor market, inflation, and rising interest rates. One panelist states that consumer credit is more vulnerable than corporate credit because of inflation (including rising energy and housing costs) and the negative affect on wealth from stock market declines. Corporations are in a stronger position because they trimmed costs during the Covid-19 pandemic.

Another panelist notes that corporations have some cushion in their levels of interest coverage. Additionally, a key challenge for the CLO market is the recent retreat of triple-A buyers. It is tough to get deals done in the current environment. CLO warehouses are swollen and underwater by roughly \$1 billion.

A third panelist agrees that consumers are the key to how the economic climate unfolds over the coming months. Companies are mostly on solid footing, as they are able to pass along rising costs to consumers. Those that cannot do so are more likely to experience stress. Another panelist adds that aspects of the current environment echo the conditions of 2020, where certain industries were more sharply affected than others.

Recession: How likely is a recession and how bad would it be? One panelist notes that US wealth has recently dropped by \$5 trillion to \$8 trillion. This has effects. It is very hard to achieve a soft landing in the face of supply-side disruptions. According to one analysis, up to two-thirds of CLOs could breach their triple-C bucket limits in a recession. Another panelist observes that pricing in the CLO market now reflects credit risk in addition to duration risk. On the other hand, CLOs are healthy, with solid overcollateralization cushions and room to spare in their triple-C buckets. A third panelist adds that a recession does not necessarily trigger a default cycle. A deterioration in credit quality would likely trigger downgrades well before defaults starts to spike. Another panelist emphasizes that although there is significant uncertainty about the future, current conditions are a “golden period,” characterized by no loans pricing at premiums, only 2½% of loans pricing below 80%, and loan defaults at or close to nil. CLO managers should be able to increase spread and build par in their portfolios in the current environment. There is plenty of room for the default rate to increase without creating problems for CLOs. However, challenges remain. Investor demand has waned. For CLO equity investors, the recent slight decline in loan prices can be viewed as a short term negative but a potentially a longer term positive.

One panelist remarks that CLO managers should position themselves to be nimble and flexible as a defensive strategy for the possibility of a recession. Another panelist adds that the sloppy loan pricing in the current market is likely to be resolved by having many loans recover to par and others descending to sub-80% prices.

One panelist states that in addition to large Japanese banks that are major CLO investors, there are also many regional banks that are buyers. The challenge is that many have approved only a fraction of the CLO manager population. For the past few years, the US domestic bid for CLOs has overshadowed the bid from Japanese banks. CLOs have outperformed other sectors over the past year while those sectors have been under greater stress. Another panelist adds that spreads are likely to widen along with continued Fed tightening. However, the widening of CLO spreads should be modest and should not reach the wides of 2020.

SEC proposed rules for private funds: The SEC has proposed new rules for advisors of private funds.¹ The rules are extensive, and they are expected to be onerous for the CLO market. There is no grandfathering; they would apply to all existing CLOs. If adopted, the rules would expand disclosure, transparency, and compliance requirements for CLOs. The proposal calls for quarterly reporting and seems to ignore the fact that CLO investors currently negotiate for the reports to be provided in a given deal. The proposal also calls for annual audited financial statements, which are not currently required in CLOs. The proposed rules would limit manager indemnification from their managed deals. The proposed rules were not designed for CLOs, but they would cover CLOs.

2:00 pm: ESG CLOs: Moving from “Sustainable” to “Conscious”

One panelist explains that investors are the impetus for ESG considerations in CLOs. Key groups that have expressed strong focus on ESG include European investors and many other buyers of triple-A-rated CLO tranches, including Japanese investors and US banks and insurance companies. The European market is more advanced than the US market in terms of ESG. Disclosure is better, and there is a more mature regulatory framework in Europe. Investors are starting to demand quantitative ESG metrics for establishing ESG covenants and compliance. However, there is no universally accepted method of ESG scoring, so CLO managers are creating their own CLO compliance metrics.

Another panelist expands on the point that there is no broad consensus about how to score ESG activities and measure compliance. A third panelist states that the lack of standard metrics is the largest challenge on the ESG landscape. The panelist explains the case of a company operating for-profit prisons (an objectionable activity along the “S” dimension) receiving the highest ESG score from a rating provider because it was being evaluated as a REIT. This prompted the panelist’s firm to create its own scoring system. The firm has created a “responsible investing” committee. Another panelist raises the question of how far should an investor consider a company’s supply chain for evaluating its ESG posture. How far is it worth digging for a small position? Greenwashing is a concern for all ESG-focused investors.

One panelist explains that most investors implement their ESG policies through exclusionary rules—for example, by excluding fossil fuel and defense companies from their investment portfolios.

Disclosure of ESG considerations is improving, although it is still limited. Also, some of the relevant information is confidential and cannot be shared with investors.

Panelists offer examples of situations whereby a company might be acceptable from an ESG perspective in spite of being in an excluded industry. One example is a fossil fuel company that is pursuing environmentally beneficial carbon capture projects. Another example is a sporting goods retailer that is excluded because it sells hunting rifles, even though its hunting-related sales account for less than 1% of total sales.

There are many competing ESG scoring models, including many that score the credit impact of ESG factors. A challenge for all the models is that much of the underlying data for scoring are not publicly available.

One panelist explains that a “negative screening” framework operates by excluding companies from a portfolio based on the presence of negative ESG attributes. A “positive screening” framework is the opposite, but it must rely on readily available

¹Securities and Exchange Commission, *Private Fund Advisers; Documentation of Registered Investment Adviser Compliance Reviews*, Release No. IA-5955, 87 Fed. Reg. 16886 (March 24, 2022), <https://www.govinfo.gov/content/pkg/FR-2022-03-24/pdf/2022-03212.pdf>.

data to establish or confirm the existence of the positive attribute. Some European CLOs have ESG-related concentration limits, which requires them to disclose their ESG scoring systems. Other recent CLOs have ESG reporting frameworks. However, there is not yet standardization. It must happen eventually. (Note: Various organizations such as the ISSB,² IOSCO,³ NGFS,⁴ SASB,⁵ and others are in the process of setting ESG standards, including disclosure standards. Additionally, the European Union [EU] is implementing frameworks to make sustainability an integral part of its financial regulatory landscape.⁶)

A CLO manager can face the challenge of different investors imposing different ESG requirements for different CLOs. ESG-focused investors have the challenge of monitoring manager compliance with investor-imposed ESG requirements. Should there be a new party to the deal that is responsible for monitoring compliance with ESG requirements? What are the consequences of noncompliance?

One panelist notes that differing ESG standards and differing investor views about the relative importance of different ESG issues can create trading opportunities. The issues that matter the most to an investor in California may be quite different from those that matter the most to an investor in the rust belt. Another panelist notes that composite ESG scores that combine the **E**, **S**, and **G** components also lose information content and may be less useful to investors. Investors may place differing weights on each component, and therefore, providing separate scores for each component may be much more useful.

4:00 pm: Middle Market CLOs and the Role of Private Credit: Where Are We Headed?

One panelist states that the CLO market has experienced an episode of high volatility, which affects the pipeline for new deals. One of the distinguishing features of middle market (MM) CLOs is that they are truly about financing (rather than arbitrage). A second panelist adds that MM CLOs have become an important element on the financing landscape for MM companies.

Another panelist explains that MM loans and CLOs have had to wrestle with the transition from London interbank offered rate (LIBOR) to the secured overnight financing rate (SOFR). The switch to SOFR happened more quickly than many had expected.

One panelist explains that, in contrast to broadly syndicated loans (BSLs), MM loans often include protective covenants. A number of BSLs have been adversely affected by trap door financings that give subsequent lenders a higher priority claim in key collateral.⁷ That kind of problem does not happen in MM loans. Another panelist

²International Sustainability Standards Board, <https://www.ifrs.org/groups/international-sustainability-standards-board/>.

³International Organisation of Securities Commissions, "IOSCO's 2022 Sustainable Finance Work Plan Strengthens the Organization's Commitment to Increasing Transparency and Mitigating Greenwashing." March 14, 2022, <https://www.iosco.org/news/pdf/IOSCONEWS635.pdf>.

⁴NGFS stands for the Network of Central Banks and Supervisors for Greening the Financial System (<https://www.ngfs.net/en>). According to the organization's charter, it seeks to "contribute to the development of environment and climate risk management in the financial sector, and to mobilize mainstream finance to support the transition toward a sustainable economy." https://www.ngfs.net/sites/default/files/media/2020/09/03/ngfs_charter_final.pdf.

⁵Sustainability Accounting Standards Board, <https://www.sasb.org/>.

⁶European Commission, "Sustainable Finance," https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en.

⁷Examples include transactions by Serta Simmons Betting, Not Your Daughter's Jeans, Windstream, J. Crew, Cirque du Soleil, Claire's Stores, iHeart Communications, PetSmart (Chewy), Neiman Marcus (MyTheresa), Party City, Revlon, Travelport, and Envision Healthcare.

adds that a growing number of investors have become buyers of MM CLO notes. Investor appetite for MM CLO equity has also grown, although MM CLO investors remain a fairly small group.

MM CLOs trade at higher yields than BSL CLOs. The difference is in the range of 30 bps to 50 bps. The difference is probably attributable to the better transparency in the BSL area. MM CLOs also have somewhat shorter reinvestment periods than BSL CLOs. Additionally, BSL CLOs allow certain types of reinvestment after the end of a deal's reinvestment period: replacing prepayments, replacing credit-risk sales, and replacing credit-improved sales. This effectively gives the manager of a BSL CLO an extra two years of reinvestment—typically for a total of seven. This means that the return of capital for an MM CLO is generally four years, compared to seven for a BSL CLO.

The legal and structural and issues affecting MM CLOs have become complex. An MM lender is likely to use a CLO as one of several funding sources for its originations. MM CLOs often have to fit into the larger context of an MM lending program. The lender must coordinate how it uses CLOs in combination with its other funding sources. The market for BSLs is more mature than the market for MM loans. Also, there is no US risk-retention requirement for BSL CLOs, but there is for MM CLOs (because of an originate-to-distribute model).⁸ An MM CLO manager may have less flexibility in working out distressed loans than it would if the loans were held in another structure. Also, there is generally less flexibility in working out distressed loans in MM CLOs than in BSL CLOs.

There is a trend toward larger loans being originated in the private credit market than in the BSL space. Private-credit execution can reduce costs in the areas of syndication fees and rating fees.

Credit headwinds create a challenge across the whole CLO landscape. One panelist advocates an up-in-credit strategy combined with a conservative outlook for interest rate increases.

One panelist predicts that MM CLOs will bounce back before BSL CLOs because the MM CLOs are not merely an arbitrage play.

The secondary market currently offers better investment opportunities than the primary market for MM CLOs.

MM borrowers generally do not have greater exposure to geopolitical risk than do BSL borrowers.

Managers of MM CLOs have differing appetites for originating covenant-lite loans.

Participants in the MM CLO space must remain alert to the risk of adverse regulatory developments.

4:45 pm: CLO Manager Roundtable: Fundamentals and Technicals

Inflation and a possible recession, together with other factors, represent credit challenges for the near term. Technicals have recently gotten more difficult, although corporate fundamentals have been fairly strong. However, they are likely to deteriorate soon. One panelist emphasizes that skill at picking companies will matter more in a tough credit environment. The experience of 2020 and 2021 is less relevant for company analysis than 2018 and 2019. Many companies are in good condition, with ample liquidity.

Sectors: Managers should be rebalancing their portfolios. This is a credit-picker's market. A panelist recommends trading up in credit (i.e., companies with lower leverage). Sectors that are likely to experience the greatest stress are cyclicals, consumer discretionary, and firms exposed to commodity risk. Healthcare and service sectors are likely to outperform other sectors.

⁸ *Loan Syndications & Trading Association v. S.E.C.*, 882 F.3d 220 (D.C. Cir. 2018), <https://cite.case.law/f3d/882/220/>.

Last year (2021) was a very hot year for CLOs. Transactions were executed very quickly, and investor demand was very strong. Transactions take longer this year, and the investor base is smaller. Investors are demanding wider spreads. Spreads on triple-A-rated CLO notes from top-tier managers widened from roughly 130 bps to more than 140 bps and sometimes as much as 150 bps. Investors are more cautious and are pushing for more-restrictive documents. Another panelist adds that it is also challenging to sell the other parts of CLO capital structures (i.e., other than the senior notes). The panelist states that a CLO manager's function is to drive total return and a big part of total return is getting your money back on the underlying assets (i.e., credit management).

Managers today face challenges in sourcing assets as well as in placing CLO securities with investors. Managers are not equally effective in surmounting the challenges. Size is a factor in manager effectiveness, although there are differing views about whether large managers or small ones have the advantage. Having a long track record is a clear advantage. Experienced managers generally have higher-quality portfolios and are more adept at dealing with market disruptions.

Even if loans don't default, CLOs may face challenges from rating agency downgrades of their underlying assets. Downgrades can cause CLOs to breach their credit-quality tests. Breaching triggers makes it harder for managers to put money to work.

Active management is key for managing a CLO portfolio. Avoiding losses is critical. The asset side of CLO management is more sensitive than the liability side.

The new SEC-proposed rule for private fund advisors⁹ could increase costs for CLO managers. The proposed rule is the top legal issue for CLO managers today. The rule would not kill CLOs but would increase costs in terms of infrastructure, such as the need to produce annual audits. The rule would also change the nature of CLO managers' legal exposure. The rule's transparency and reporting requirements do not really make sense for CLOs. The rule does not allow grandfathering, which will be a problem for outstanding deals.

CLO execution has evolved and improved significantly since the rescission of US risk-retention requirements.¹⁰ Still, the bottom of the capital structure remains the most challenging to place, and CLO managers can benefit from strong relationships with CLO equity investors. A silver lining from the period when US risk retention was in force is that it brought more investors into the CLO equity space. Many types of private-fund vehicles were created for the purpose of allowing third-party investment in required risk-retention slices: majority-owned affiliates (MOAs), capitalized majority-owned affiliates (CMOAs) and capitalized manager vehicles (CMVs). Even though the US risk-retention requirements are gone, the newer CLO equity investors have stayed in the market. This has also brought more investors into the market for CLO debt. The growing number of investors in the CLO space has improved secondary liquidity, which attracts even more new investors to the sector.

Panelists outlook for loan defaults in 2022:

- No global meltdown; 1%–1½% default rate.
- 1½%–2% default rate for the full year.
- 1½% ballpark.
- Recovery rates are likely to be a more important issue than the default rate. The presence or absence of covenants will bear on recoveries.

⁹Securities and Exchange Commission, *Private Fund Advisers; Documentation of Registered Investment Adviser Compliance Reviews*, Release No. IA-5955, 87 Fed. Reg. 16886 (March 24, 2022), <https://www.govinfo.gov/content/pkg/FR-2022-03-24/pdf/2022-03212.pdf>.

¹⁰*Loan Syndications & Trading Association v. S.E.C.*, 882 F.3d 220 (D.C. Cir. 2018), <https://cite.case.law/f3d/882/220/>.

Panelists' outlook for 2022 issuance:

- Net loan originations of roughly \$200 billion.
- CLO issuance of \$130 billion for 2022.

TUESDAY, MAY 24, 2022

9:00 am: Credit Fundamentals: The Leveraged Loan Market Outlook

The year began very well. Earnings were positive. Intrinsic liquidity for borrowers was strong. It was a very borrower-friendly market, which produces many borrowers with high leverage, low ratings, flexible credit agreements, a concentration of first-lien debt, and a concentration of first-lien-only debt.

The prevalence of low ratings among leveraged borrowers is a reflection of increasing leverage. In the mid-2000s, average leverage was around 4x. In the mid-teens it was around 5x. In the pandemic, average leverage rose to 5.3x and more recently has climbed to 5.5x. Thus, the proportion of B- borrowers in the leverage loan universe has risen sharply, reaching 23%. The current rating composition of the universe of leveraged-loan borrowers implies a higher default rate than the consensus forecasts. One reason for the divergence is that the market is coming from an ultra-low-interest-rate environment, which has helped borrower cash flows. A second reason is increased valuations. A third reason is a change in the composition of the borrower population toward less-capital-intensive activities.

Credit headwinds are starting to blow harder: rising interest rates, disruptions, pressure on labor costs, other input costs, and inflation in general. Most sectors have gotten back to their leverage levels of 2019, and most speculative-grade issuers have been seizing refinancing opportunities. Pressure from liquidity and maturities is low for the next several years. Companies have time to adjust their strategies to deal with the headwinds. Sectors that can pass through increased costs have an advantage. Sectors that are of concern include autos, consumer products, healthcare services, retail, and restaurants. Pressure from rising interest rates is not expected to be significant this year but may be important in 2023 and beyond. Rising interest rates can constrain a borrower's ability to generate free cash flow.

Documentation: Leverage loan borrowers continue to push for aggressive loan terms. From a lender's perspective, documents are getting worse in some respects and better in others. A key issue for many lenders/investors is "liability management transactions," which have burned lenders in the past. These include so-called "up tiering" and "down-dropping" transactions.¹¹ It took a while for lenders to figure out how to protect against up-tiering and down-dropping. About one-third of deals included such protections in 2021. Investors are now demanding such protections.

Another documentation issue is add-backs to the calculation of EBITDA under the loan agreements for the purpose of measuring compliance with covenants. Although investors are gaining protection against liability management transactions, they are losing ground in terms of other risk, such as EBITDA add-backs.

Most borrowers are companies sponsored by private equity (PE) firms. Sponsors have transformed the market. Leveraged-loan borrowers now often have first-lien-only capital structures or capital structures with just a sliver of subordinated/second-lien debt. The proportion of subordinated/second-lien debt on the balance sheets of leveraged loan borrowers has been shrinking steadily for the past five years to where

¹¹Examples of up-tiering transactions include ones by Serta Simmons Betting, Not Your Daughter's Jeans, and Windstream. Examples of down-dropping transactions include ones by J. Crew, Cirque du Soleil, Claire's Stores, iHeart Communications, PetSmart (Chewy), Neiman Marcus (MyTheresa), Party City, Revlon, Travelport, and Envision Healthcare.

it now accounts for roughly 15% of typical balance sheets. About 35% to 40% of borrowers have first-lien-only balance sheets. Of that population, about 20% have asset-based lending facilities, which effectively subordinate the “first-lien” debt. These changes are important for how lenders and investors think about the loan market and recoveries on loans that default.

Expected recoveries on loans that default are now in the area of 60%, compared to historical recovery rates on defaulted leveraged loans in the area of 70% to 80%. Weaker documents also increase event risk. On the other hand, PE sponsors are more likely to have their sponsored borrowers effect distressed exchanges rather than filing for bankruptcy protection under Chapter 11. This tends to produce better recoveries.

Revolving credit facilities have helped several borrowers avoid defaults on their term loans. A revolving credit facility can help a borrower weather a brief disruption, but it can exacerbate loss severity on term loans if there is a protracted disruption.

Alongside rising leverage (as a multiple of EBITDA), valuations have also increased. Part of the increase is attributable to higher debt levels. However, a greater share (~65%) is from equity contributions. This is potentially another source of protection for lenders/investors. On the other hand, sponsors can withdraw equity later if they want to do so.

A recent development in documentation is the use of a reallocation provision that permits a borrower to reallocate amounts available for one type of restricted payment to another type. This has the effect of reducing or eliminating the protection afforded by having distinct baskets for different types of restricted payments. Such a reallocation provision can effectively nullify basket-based limits on debt incurrence or dividends. Another development is increased capacity to incur debt with an earlier maturity. Sometimes the amount of earlier-maturity debt can be up to 4x EBITDA. The earlier-maturity debt is effectively priming in time. Also, the earlier-maturity debt does not trigger most favored nation (MFN) clauses and can be used to fund restricted payments. The bottom line is that sponsors are aggressively seeing loan terms that allow them to “de-equitize” (i.e., withdraw equity) when they want to do so.

There is likely to be a lower proportion of refinancing activity in the loan originations for 2022 compared to 2021. New originations are expected to come largely from mergers and acquisition (M&A) activity and leveraged buy-outs (LBOs). There is likely to be a good number of going-private transactions. The market is somewhat on edge and grappling with uncertainty. On the positive side, the forecast for 2022 loan defaults is quite favorable, based on rating momentum, rating transitions, rating composition, unemployment, and high-yield spreads.

Credit rating downgrades are likely to dominate upgrades in the near term. Upgrades dominated downgrades in 2021, but conditions are tougher now and the outlook is more uncertain. Credit analysis and careful credit selection are essential during times when risk is increasing. Both Moody’s and S&P forecast speculative-grade default rates of roughly 3% for the next year, with substantial uncertainty to the downside.

9:45 am: Securing Yield: Investor Strategies and Opportunities across the Capital Stack

Last year produced strong CLO issuance volume, as did the first quarter of 2022. Issuance slowed somewhat in April and May, but was still reasonably strong. Issuance for the remainder of the year will depend on Fed actions. Liquidity for highly rated CLO tranches has been solid. Liquidity has been weaker for lower-rated tranches. Spreads for BSL CLOs have widened to the range of 150 bps to 160 bps for triple-A-rated tranches and to roughly 200 bps for double-A-rated tranches. Spreads for MM CLOs are wider by up to 50 bps.

Mezzanine CLO tranches and CLO equity have displayed marked volatility, performing very well early in the year before experiencing sharp spread widening more recently. Liquidity is always thinner for mezzanine tranches and equity relative to highly rated tranches.

There have been only very limited secondary-market opportunities for investors to buy securities at cheap dollar prices (rather than based on discount margins). New issues present opportunities in the form of wider spreads. Bid–ask spreads widened sharply in April and May. The key challenge for issuers in the current (mid-May) environment is finding sufficient interest at the triple-A level.

Loan market: Speculative-grade borrowers are generally in good shape. Their balance sheets are liquid. There is no maturity wall. Interest coverage was almost 6x among publicly reporting borrowers. Leverage levels have remained steady since 2018, roughly in the range of 5x to 5½x. At the end of April, the default rate was only 0.18% for the prior twelve months—only one-fifteenth of the average historical default rate. A sampling of borrowers reported EBITDA increases of 13% for the first quarter of 2022. Finally, despite inflationary headwinds, nominal growth continues to be strong for most borrowers, but inflation is a big threat. Even though many companies have had strong pricing power and have been able to pass along rising costs so far, that will not last forever.

One panelist asserts that triple-A-rated and double-A-rated CLO tranches are attractive based on their spreads compared to publicly traded corporate bonds. Tranches at the triple-A and double-A rating levels embody little or no credit risk, though they may be less liquid than other securities. Tranches at the single-A level are almost unbreakable. They present very compelling value. The callability of the securities is a negative feature.

Another panelist argues that CLO equity is the most attractive opportunity for the medium-term horizon. However, there is likely to be pressure in the short term.

Relative value: The market is pricing for a recession, both for loans and CLO tranches. Everything is pricing with wider spreads. However, because the whole yield curve has shifted upward, investors can achieve yields today on triple-B tranches that were available only on riskier tranches a short time ago. This makes mezzanine tranches attractive relative to higher-rated tranches. Equity is also attractive because it is inherently long volatility. On the other hand, rising rates mean that a greater share of the coupon on CLO notes is attributable to the floating component, which tends to favor the more senior tranches in a CLO's capital structure.

Another panelist states that junior mezzanine tranches are particularly attractive in the current environment. Tranches at the double-B level are priced in the mid-80s and offer a robust cushion. But they are hard to find. Triple-B-rated tranches are also attractive.

CLOs are attractive compared to other structured finance asset classes. CLOs offer attractive diversification across corporate sectors. Many other structured finance securities are concentrated in real estate. CLOs are also attractive from a pure spread perspective. Residential mortgage-backed securities (MBS) also offer attractive spreads.

CLO managers: CLOs differ from most other structured finance asset classes in that they are actively managed. One panelist explains that the two factors that most heavily influence performance for CLO investors are 1) managers and 2) vintage. The current environment is one in which managers are likely to display diverging performance—some will perform well, and others will fall behind. There is currently an opportunity for managers to trade into loans from the largest borrowers at attractive prices. Also, managers should build par by purchasing discount loans with low coupons.

Another panelist states that managers should be trading up in credit. They should be trading out of assets with high credit risk and taking more duration risk. The better managers are actively trading to address credit risk in their portfolios. A third panelist recommends that investors should assess managers by the performance of their loan portfolios on an unlevered basis. Additionally, investors should consider performance during three separate time periods: 1) the stable market of 2017 to 2018, 2) the period of idiosyncratic volatility in 2018–2019, and 3) the massive sell-off of 2020.

Expectations and outlook for 2022H2: The panelists state their expectations and outlooks for the second half of 2022:

- Spreads will stabilize at their current levels. Defaults will increase slowly over the next several years, as the Fed tries to curate a soft landing.
- CLO issuance for the year will be in the area of \$125 billion. Defaults will remain low, around 1% or lower for the year. Spreads may tighten slightly on triple-A-rated tranches, ending the year at around 145 bps. But inflation and a recession could change everything.
- Issuance will continue at a slow and steady pace. Spreads will tighten under relative-value pressure. Defaults should remain low through 2022. However, it is uncertain what conditions will be in the latter half of next year.
- The appetite of triple-A investors will be the key factor for whether the market will be stable.

11:00 am: The Evolving Manager Landscape: Evaluating Manager Tiers and Performance

One panelist emphasizes that a CLO manager's track records are critically important to investors. Another panelist agrees, highlighting the importance of how a manager deals with tough situations. A third panelist states that manager tiering can offer opportunities for investors to boost yield by trading into second- and third-tier managers. A CLO manager is a risk manager and must possess good credit selection abilities. An investor must consider both how a CLO manager is handling its existing positions *and* how it adds new positions.

Even a highly experienced and successful lender that becomes a CLO manager faces the challenge of being viewed as a “new” manager by many investors.

Examining performance through past periods of volatility is a good way to understand CLO managers. Few were able to perform above the average through multiple episodes, such as energy price spikes or retail sector dislocation. A key consideration is how managers prepare for the next episode. Both new and veteran managers are equally exposed to macro stresses. Many new CLO managers entered the market in 2020 and 2021. There will likely be fewer new managers in 2022.

Manager tiering: Tiering can be viewed as the market's relative perception of CLO managers. According to one panelist, the key factors that drive perceptions are performance and liquidity. Size is not a strong indicator. Performance can be hard to quantify. Spread is a strong indicator. There are opportunities for investors to earn incremental spread by purchasing deals from tier-2 or tier-3 managers. A trade-off is that liquidity is weaker. To be effective and establish credibility, a new CLO manager must hold some of the equity in its deals. Also, it must be able to find investors for the senior tranches.

There has been some reshuffling of managers across tiers in recent years. Covid was a test by fire. And managers embraced differing approaches, not all of which have been equally effective.

Diversifying CLO investments across different managers is an important consideration. Also, when a manager becomes large, it may be difficult for it to maintain consistency in how it manages across all of its deals. A related issue is a manager's ability to maintain good research coverage on all its credits as it grows. A further consideration is that multiple deals from the same manager may contain a high overlap of underlying credits. This is another factor that argues for diversifying across managers. A manager should have analysts that come from different universities.

Key elements that make a CLO management firm a good place to work are: 1) culture, 2) capital, and 3) infrastructure. When those elements are present, a seasoned CLO professional can be highly effective at implementing a conservative strategy of selecting strong credits and gradually improving the firm's cost of capital. Firm size is a two-edged sword. Being small allows a manager to focus more intensely on fewer deals. On the other hand, many investors will not even consider investing in deals from a small manager.

The current environment is very difficult for new CLO managers. Even if they have a good track record in credit, managing a CLO requires additional capabilities. Many new managers have stumbled when they first entered the CLO market. Investors are well advised to steer clear of new managers in the face of impending stress.

Consolidation: Traditional drivers of CLO manager consolidation include building assets under management (AUM), moving from BSL to MM or vice versa, and geographic expansion. Consolidations are usually strategic. From an investor perspective, consolidation can reduce diversification and can cause an investor to exceed its desired exposure level to any single manager. On the other hand, if consolidation results from a manager diversifying its activities (i.e., geographic expansion), then it can help an investor's diversification.

Whether or not a new CLO manager should exercise the option to include high-yield bonds in a CLO portfolio depends on whether it has experience with high-yield bonds. Right now, high-yield bonds offer some attractive opportunities.

11:45 am: Out of the Mist: Emerging Middle Market Trends

One panelist states that credit quality in MM CLOs improved during the early part of 2022.

There have been 223 MM CLOs. They were relatively unscathed through the financial crisis. Since 2017, 155 MM CLOs have been issued. That is three times the number that had been issued in the preceding four years. There was a slowdown in MM CLO issuance in the first half of 2020 because of the Covid-19 pandemic.

Spreads on triple-A tranches are a function of three factors. The first is the market (credit) conditions under which a deal is issued. The second is the seniority of a given tranche; subordinate triple-A tranches carry wider spreads than (super) senior tranches. The third factor is manager tiering. Spreads have varied in recent years in the range of 155 bps to 225 bps. Spreads on MM CLOs are wider than those on BSL CLOs. Forty-two CLO managers have issued MM CLOs. Eighteen of them have managed five or more CLOs. The top four managers account for a third of MM CLOs.

A key appeal of MM CLOs is wider spreads. Another attractive feature is loan documentation that provides greater protection for lenders. A third attractive feature is the ease and certainty of execution (compared to BSL lending).

There has been consolidation among CLO managers. It is not necessarily either positive or negative from a credit perspective. It can be good for investors because it makes room for new entrants.

Investors in MM CLOs should focus intently on how managers of MM CLOs operate. This includes not only originating and managing leveraged loans, but also managing the funding side of the operation. For most managers of MM CLOs, CLOs

are just one of several sources for funding loans. Issuing MM CLOs is an efficient and low-cost source of funding for an MM lender.

Documentation for MM loans tends to be stronger than documentation for BSLs. MM loans generally have maintenance covenants and include protections against down-dropping and up-tiering transactions.

The growth of private credit in the MM sector has been driven partly by a retreat by banks from the sector. The growth has also been driven by the rise of private credit alongside private equity.

A key difference between MM CLOs and BSL CLOs is that the manager of an MM CLO has a greater ability to work with a distressed borrower compared to the manager of a BSL CLO. The manager of an MM CLO is likely to be the only lender on an MM loan or one of only a small group of lenders. By contrast, the manager of a BSL CLO is often merely the member of a broad syndicate of lenders on a BSL loan.

About 95% of MM borrowers are owned by private equity sponsors. Typical credit quality is B– and typical EBITDA is in the range of \$20 million to \$25 million.

More broadly, the style and structure of MM lending is moving into loans to larger borrowers. Strictly speaking, such loans might not be “MM” loans because of their size, but they are examples of private credit/direct lending. Under difficult macro-economic conditions, borrowers perceive an advantage in private-credit/direct-lending alternatives in order to achieve greater certainty of execution.

The outlook for the rest of 2022 and 2023 is that economic growth will slow, loan defaults will increase, and recoveries will weaken. MM loans tend to default less frequently than BSLs, and MM CLOs have higher subordination levels, which provide greater protection.

2:15 pm: “The Price is Right!”: Secondary Market Trading

Manager tiering & selection: One panelist explains that manager tiering has been very pronounced for the past few years. Differences among managers have been visible in the performance data. A good manager should have a rigid credit process and stick to its convictions. Many successful managers allowed their triple-C buckets to expand, reflecting a conviction that the credits were good, despite having been downgraded. A good manager is also able to sell its deals effectively. There were 15 new managers in the past year and 15 consolidations (mergers) among CLO managers.

Another panelist explains that his firm invests with about 25 to 30 CLO managers, out of a population of roughly 120 active CLO managers. Tiering is not unique to CLO managers. It exists in many types of investment products. Tiering is frustrating for managers that are not considered top-tier. Factors that drive tiering of CLO managers include size (breadth and depth), track record, and style.

Secondary market opportunities: Secondary trading offers attractive opportunities relative to buying CLOs in the primary market. However, secondary trading is difficult because it moves faster and requires investors to analyze bid lists very quickly.

Investors should check for LIBOR–SOFR spread adjustments in secondary trades.

One panelist asserts that CLO equity would be attractive in secondary trades, but not much is available. The best relative value opportunities are in double-B-rated CLO tranches. This is based on the low historical default rate of double-B-rated CLO tranches compared to double-B-rated corporate bonds. Additionally, a typical double-B-rated CLO tranche can withstand (for its entire life) an annual default rate equal to *double* the worst annual default rate that occurred during the global financial crisis. Many double-B-rated CLO tranches trade at prices in the 80s. Another panelist generally agrees but cautions that double-B-rated CLO tranches display significant volatility. A third panelist cautions that a few years ago double-B-rated CLO tranches were trading in the 50s.

One panelist explains that CLO secondary trading has exploded over the past few quarters. March 2022 was the most active month in the past several years, with \$4.3 billion in CLO secondary trading volume. April volume was \$4.2 billion. The increase from a year earlier is 40%. CLO secondary trading volume was \$32 billion for 2020 and \$24 billion for 2021. Year-to-date volume for 2022 (as of mid-May) was \$16.2 billion, which would produce \$39 billion for the year, if the pace continues. Half of the secondary trading volume is in triple-A-rated CLO tranches. The high volume of secondary trading is being driven partly by relative-value investors coming into the sector from other products.

CLOs have become an accepted asset class among mainstream investors.

In contrast to primary offerings, where investors may be able to influence a CLO's terms, they have to accept a deal's terms as a given in secondary trading. Key considerations are leakage from the waterfall (e.g., flushing excess par to equity during a partial refi), extension risk (e.g., reinvestment language in the documents), concentration limits (and whether they match the manager's style), amendments, and alignment of interest among investors and the manager. Another panelist observes that despite the lack of standardized documentation for CLOs, the substantive variation in CLO terms in deals from different managers is not very great. On the other hand, there is tension between investors in different tranches. Investors in mezzanine tranches have negotiated provisions for their own benefit that may be detrimental to senior investors.

Electronic trading: The CLO market amounts to more than \$1 trillion. There are about 1,000 investors, of which 300 are active. There is \$1.3 trillion in leveraged loans backing CLOs. There are 30 market makers in the CLO market. There are 15,000 CLO securities. Altogether, the large numbers of players and securities, combined with somewhat limited transparency, means that there is an opportunity to improve secondary liquidity of CLOs by making trading easier, more transparent, and more accessible. A problem though, is that each structure is different—there is no standardization. Additionally, managers and vintages are different.

Floating-rate securities are rare among investment-grade corporate bonds. CLOs offer a floating-rate, investment-grade product.

2:15 pm: CRE CLOs: Expanding Momentum

CRE CLOs are hybrids of CMBS and corporate CLOs. CMBS have a history that extends back to the early 1990s and the aftermath of the savings and loan crisis. CMBS structures make it difficult for lenders to recognize profit (so-called "gain on sale") when they securitize loans. Additionally, real estate mortgage investment conduit (REMIC) tax rules limit a lender's ability to have ongoing involvement with a loan after securitizing it in a CMBS. Those limitations do not apply to CRE CLOs. Additionally, CRE CLOs have better alignment of interests than CMBS, because the lenders typically retain greater interests in their CRE CLOs.

A difference between CRE CLOs and corporate BSL CLOs is that the CRE CLOs are primarily for financing rather than arbitrage. Another difference is that managers of CRE CLOs earn their management fees mostly outside of their CRE CLOs, while the managers of corporate BSL CLOs earn their management fees primarily through their CLOs.

In contrast to CMBS, CRE CLOs permit reinvestment of collections in new loans. This means that the rating analysis of CRE CLOs depends not only on the commercial mortgage loans included in a deal at its inception, but also on the manager's track record and capabilities and the requirements for adding new commercial mortgage loans during the deal's life. A typical CRE CLO allows for reinvestment for a period of 18 months to 24 months following the deal's inception.

Unlike CMBS, which rarely include commercial loans with short maturities, CRE CLOs are suitable vehicles for funding such loans. However, loans should be secured by income-producing properties. Therefore, land loans and construction loans are generally not suitable. Of course, CLOs can also include the same types of loans as CMBS.

Apartment buildings are a stable property class. By contrast, the outlook for office buildings is somewhat uncertain. The price of apartment buildings has recently increased, partly driven by rising rents.

Changes in rates and spreads affect the desirability of CRE CLOs as a funding source for commercial mortgage loans. Rising interest rates increase the cost of borrowing for property owners and slow property value appreciation.

Rising interest rates on mortgage loans for single-family homes have caused monthly payments to increase by more than 30%. Accordingly, apartment living remains a more affordable alternative in spite of higher rents. The Consumer Price Index includes a heavy weighting toward housing—31%. This means that headline inflation figures are driven significantly by rent and mortgage payments.

Middle-income renters generally stayed in their homes and paid their rent during the pandemic. High-income renters were the ones who more frequently moved away and broke their leases.

3:30 pm: More than Plain Vanilla: CLO Structural Evolution

One panelist explains that the market has adapted to dislocation from the pandemic. Managers are interested in minimizing their weighted-average cost of capital. They are issuing new CLOs with three-year reinvestment periods and one-year noncall periods. Static structures are becoming somewhat more prevalent. The market now requires only one rating on CLO deals; this makes things more competitive for the rating agencies. This may motivate the rating agencies to loosen their standards in order to capture business. There is also an emerging focus on ESG considerations in new CLOs.

The B–/B3 portion of the leveraged loan market has grown. In 2014, loans at the B–/B3 credit grade composed only 6% of CLO underlying assets. By 2022, that proportion grew to more than 25%. Investors have varying views on whether the larger proportion of B–/B3 assets should be a point of concern. The growth of private credit/direct lending has forced banks to become more aggressive in their lending. That may be a driver for the larger share of B–/B3 credits in CLOs and in the leveraged loan market generally.

The current environment does not encourage innovation. It may be best for managers to repeat the use of structures with which investors are familiar and have become comfortable. Some deals have included new provisions to allow managers to participate more actively in workout situations.

CLOs backed by trust-preferred securities (TruPS) are coming back. TruPS CLOs were popular before the 2008 financial crisis. The old TruPS CLOs used the same structures as contemporaneous BSL CLOs. The key difference was that their underlying assets were predominantly TruPS issued by regional banks. After the release of the Volker rule,¹² TruPS CLOs were required to use static structures (similar to

¹²Dodd–Frank Wall Street Reform and Consumer Protection Act § 619, Pub. Law No. 111-203, 124 Stat. 1376, 1620 (2010), <https://www.govinfo.gov/content/pkg/PLAW-111publ203/pdf/PLAW-111publ203.pdf>; <https://www.govinfo.gov/content/pkg/STATUTE-124/pdf/STATUTE-124-Pg1376.pdf>; 12 U.S.C. § 1851 (2020), <https://www.govinfo.gov/content/pkg/USCODE-2020-title12/pdf/USCODE-2020-title12-chap17-sec1851.pdf>; 12 C.F.R. Part 44 (2021), <https://www.govinfo.gov/content/pkg/CFR-2021-title12-vol1/pdf/CFR-2021-title12-vol1-part44.pdf>.

asset-backed securities that use the Rule 3a-7 exemption¹³ under the 1940 Act). It is possible that TruPS CLOs will start using revolving structures in the future.

The potential application to CLOs of the SEC's proposed rule for private funds¹⁴ could be solved by structuring CLOs to comply with both Rule 3a-7 under the 1940 Act and § 3(c)(7) of the 1940 Act. However, law firms have differing views about how much flexibility an issuing entity can have while still complying with Rule 3a-7. The issue is about when CLOs can buy and sell assets without violating the rule.

Loan tranches: Some CLOs are issuing a portion of their senior tranches in the form of loans rather than as secured notes. The reason is that some banks want to invest in the senior tranches but want the positions to be loans (rather than securities) for purposes of their capital regulations. In most cases, a loan tranche can be converted into a secured note tranche. CLOs managers should not care about whether senior tranches are structured as loans.

LIBOR and SOFR: The LIBOR transition process is ongoing. It is necessary to examine the documents for each legacy deal individually. Partial refinancing transactions can cause a legacy transaction to have multiple forms of language applying to different tranches. New deals include transition language from inception. Some indentures have already triggered a transition to SOFR and some have not. It remains to be seen whether the transition provisions in new transactions will use the 26-bps credit-spread adjustment that was included as the 3-month default adjustment for legacy deals that do not provide otherwise.¹⁵

New applications of CLO technology: CLO technology has been widely applied in the area of commercial real estate (CRE) in the form of CRE CLOs. It has also been applied to aviation finance, using loans secured by portfolios of aircraft.

3:30 pm: "What's up Docs?": CLO Documentation Trends

CLOs are a fairly mature product. Nevertheless, documentation continues to change and evolve. Recent years have brought important changes. For example, changes to the Volcker rule in 2020 allowed CLOs to include up to 5% in bonds.¹⁶ The Volcker rule changes also now permit a holder to participate in a decision to terminate a manager, which otherwise could have caused a CLO note to be characterized as an "ownership interest" that banks would not have been allowed to hold.¹⁷ Another key development that affected CLO documentation was the court decision that eliminated risk-retention requirements for BSL CLOs.¹⁸ Other documentation changes now allow CLO managers to participate in restructurings and loss-mitigation loans.

¹³ 17 C.F.R. § 270.3a-7 (2020), <https://www.govinfo.gov/content/pkg/CFR-2020-title17-vol4/pdf/CFR-2020-title17-vol4-sec270-3a-7.pdf>.

¹⁴ Securities and Exchange Commission, *Private Fund Advisers; Documentation of Registered Investment Adviser Compliance Reviews*, Release No. IA-5955, 87 Fed. Reg. 16886 (March 24, 2022).

¹⁵ In March 2022, the Adjustable Interest Rate (LIBOR) Act became law as Division U of the Consolidated Appropriations Act, 2022, Pub. Law No. 117-103 (March 15, 2022), <https://www.govinfo.gov/content/pkg/PLAW-117publ103/pdf/PLAW-117publ103.pdf>. The new law designates SOFR as the default replacement for LIBOR with the following tenor spread adjustments: 1) 0.00644% for overnight LIBOR, 2) 0.11448% for 1-month LIBOR, 3) 0.26161% for 3-month LIBOR, 4) 0.42826% for 6-month LIBOR, and 5) 0.71513% for 12-month LIBOR.

¹⁶ Office of the Comptroller of the Currency, Federal Reserve System, Federal Deposit Insurance Corporation, and Securities and Exchange Commission, *Prohibitions and Restrictions on Proprietary Trading and Certain Interests in, and Relationships With, Hedge Funds and Private Equity Funds*, 85 Fed. Reg. 46422, 46432-33, 46497, 46503-04, 46510, 46517, 46523 (31 Jul 2020), <https://www.govinfo.gov/content/pkg/FR-2020-07-31/pdf/2020-15525.pdf>.

¹⁷ See, e.g., 85 Fed. Reg. at 46460.

¹⁸ *Loan Syndications & Trading Association v. S.E.C.*, 882 F.3d 220 (D.C. Cir. 2018), <https://cite.case.law/f3d/882/220/>.

Additional topics and items that have driven variation in CLO documentation in recent years include the following:

- Addition of the Cayman Islands to the EU high-risk anti-money-laundering (AML) list
- ESG consideration
- Triple-A loan tranches.
- Inclusion of bridge loans
- Inclusion of long-dated buckets
- Growing proportion of covenant-line loans
- Maturity amendments
- Events of default (majority or supermajority requirements)
- Supplemental indentures (consent and objection rights)

Depending on which rating agencies are on a deal, structures may adjust the details of ongoing asset-quality and interest-coverage tests.

Provisions allowing for loss-mitigation loans and for CLO managers to participate in restructurings now allow CLO managers to protect a CLO from being disadvantaged or exploited in workout situations. A point of variation among recent CLOs is the degree to which a manager can use principal proceeds to fund loss-mitigation loans and the conditions, if any, for such use. Because loss-mitigation loans may not meet the standard criteria for inclusion in a CLO's portfolio, they typically are not counted for the purposes of coverage tests.

ESG considerations are slowly creeping into CLOs. It started with European investors. Most deals now include ESG factors in the form of exclusions or concentration limits on credits from certain disfavored industries, such as tobacco or opioid drugs. CLO managers sometimes agree to ESG provisions with which they later have trouble complying.

LIBOR–SOFR transition: Implementing the change from LIBOR to SOFR in new transactions has been very straightforward. Deals vary in the fallback language that they include to address the possibility that SOFR might cease to exist. Some deals use the Alternative Reference Rates Committee (ARRC)-proposed hierarchy, and others allow the manager to choose from a menu of alternatives.

Some legacy deals call for the manager to seek an amendment to address the demise of LIBOR. However, if an amendment does not happen, then the federal LIBOR Act would apply.¹⁹

SPV domicile: Jersey and Bermuda are now being used as domiciles for issuers of new CLOs because the Cayman Islands were added to the EU high-risk anti-money-laundering (AML) list. Inclusion on the high-risk AML list means a CLO domiciled in the Cayman Islands cannot comply with the EU risk-retention rules.²⁰ Many of the service providers in the Cayman Islands also operate in Jersey or Bermuda.

¹⁹ Adjustable Interest Rate (LIBOR) Act, Consolidated Appropriations Act, Div. U, 2022, Pub. Law No. 117-103 (Mar. 15, 2022), <https://www.govinfo.gov/content/pkg/PLAW-117publ103/pdf/PLAW-117publ103.pdf>.

²⁰ Regulation (EU) 2017/2402 of the European Parliament and of the Council of 12 December 2017, laying down a general framework for securitisation and creating a specific framework for simple, transparent, and standardised securitisation and amending Directives 2009/65/EC, 2009/138/EC, and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012, Art. 6, 2017 O.J. (L 347) 35, 48-50, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R2402&from=EN>; Regulation (EU) 2021/557 of the European Parliament and of the Council of 31 March 2021, amending Regulation (EU) 2017/2402 laying down a general framework for securitisation and creating a specific framework for simple, transparent, and standardised securitisation to help the recovery from the COVID-19 crisis, Art. 1, § 4, 2021 O.J. (L.116) 1, 8, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0557&from=EN>.

Documentation for existing deals typically allows for changing an issuing entity's jurisdiction. Noteholder consent or rating agency approval is sometimes required.

Loan tranches: Some US banks prefer to make their investments in CLOs in the form of loans rather than securities. This allows the banks to achieve favorable treatment under risk-based capital regulations. In principle, there is supposed to be no substantive/economic difference between an investment in loan or secured note form. From a documentation perspective, including loan tranches creates more paperwork because there must be a separate loan agreement.

Outlook: Investors are likely to drive future changes in CLO documentation. Investors are focused on several areas including concentration limits, limits on discount obligations, limits on covenant-lite loans, and limits on bridge loans. New limitations of those types should not adversely affect CLO managers' ability to manage their deals.

In reaction to perceived rising risk, investors more frequently seek pricing concessions than documentation changes.

4:15 pm: The Innovation Game: Technology and the Future for CLOs

Key themes/challenges where technology can help are data, reconciliation, and speed of execution.

Two issues for CLO investors are the time required for analyzing bid lists and the idiosyncrasies of CLO indentures. To properly analyze a CLO, an investor may need to use products from multiple vendors, which can become quite expensive. From the manager side, a key issue is the time required to close a loan; it can take up to 60 days. Also, the process of booking loan trades is mostly manual and time consuming.

The absence of standardization in trustee reporting creates a challenge for CLO investors. The lack of standardization in reporting is becoming increasingly important given the recent growth of the CLO sector. On the loan side, information on public companies is standardized in the form of SEC periodic reporting on Forms 10-K and 10-Q. By contrast, information on private companies (which account for 60% of leveraged loans) is much less available and less uniform. Even managing a calendar of earnings calls for private companies is challenging. Accordingly, CLO investors must use a wide array of information sources including Bloomberg, rating agencies, Markit, and dealers.

Managers are continually creating complex funding vehicles—such as CLOs, separately managed accounts (SMAs), and business development companies (BDCs)—and consolidating information from all of them for making effective decisions is increasingly difficult. The challenge is heightened when a manager works with multiple trustees that report differently. The challenge of data consolidation is highlighted when managers want to outsource back-office and middle-office functions.

Artificial intelligence and machine learning tools can automate document analysis. The development of data interfaces is facilitating the simultaneous use of multiple data sources from different vendors. Automated document analysis has a role on both CLO indentures and loan documents.

Project Octopus: Project Octopus (now Octuara), sponsored by several major financial institutions, is a new electronic trading platform for trading CLOs and loans. It is intended to speed up the trading process and automate manual functions. It is also expected to embody analytic capabilities and to allow traders to effectively differentiate pricing on tranches from different deals based on differences in documentation. Project Octopus seeks to have all CLO documents in its database, including both indentures and periodic reports.

ESG: Many new CLOs embody ESG constraints. CLO managers want to use technology to automate ESG compliance by aggregating ESG data and computerizing ESG metrics and covenants. Technology also has a role in ESG risk analytics and in

the models that companies use to manage their exposures to climate risk and their transition to renewable energy. It also has a key role in helping companies fulfill their ESG-related reporting requirements. The main challenge is consolidating data of different types from different sources. Using artificial intelligence can facilitate data consolidation.

Blockchain: The recent Terra cryptocurrency fiasco is a setback to the application of blockchain technology broadly. Blockchain is potentially a technology that can facilitate automation, but it is not a panacea. If blockchain technology can ultimately help to streamline loan origination, it will do so as part of a wider move to digitalization of loans. The key benefit that blockchain technology brings is supporting the validity and authenticity of data.