

COLLATERALIZED LOAN OBLIGATIONS (CLOs)

A securitized products primer

WHAT ARE COLLATERALIZED LOAN OBLIGATIONS (CLOs)?



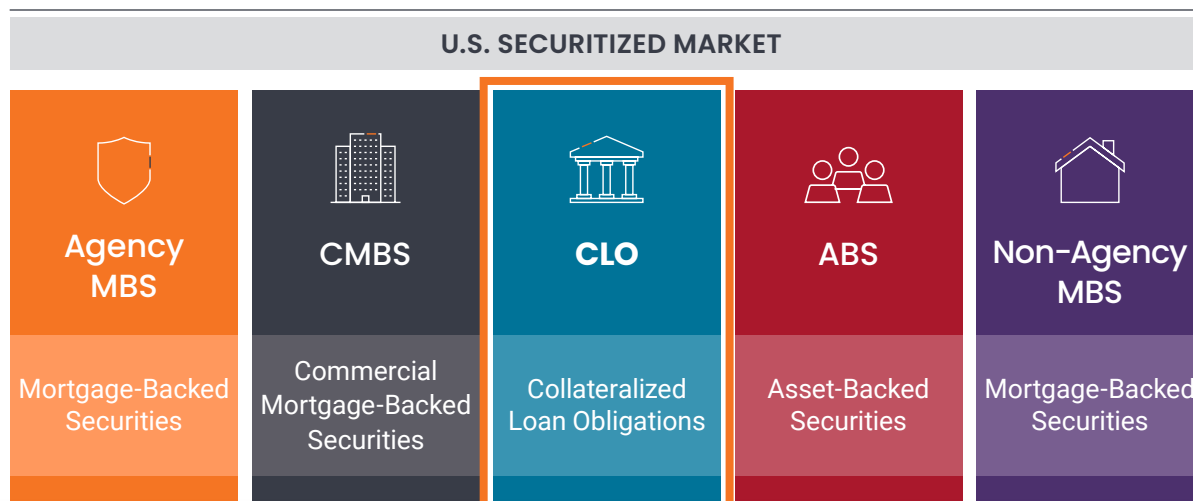
CLOs are managed portfolios of **bank loans** that have been **securitized** into new instruments of varying credit ratings. CLOs have increasingly become the link between the financing needs of smaller companies and investors seeking higher yields.



Bank loans are loans issued by banks to corporate companies. The loans carry credit ratings below investment grade and are often used by companies to refinance existing debt, make an acquisition, or recapitalize. Bank loans may also be referred to as **leveraged loans**.



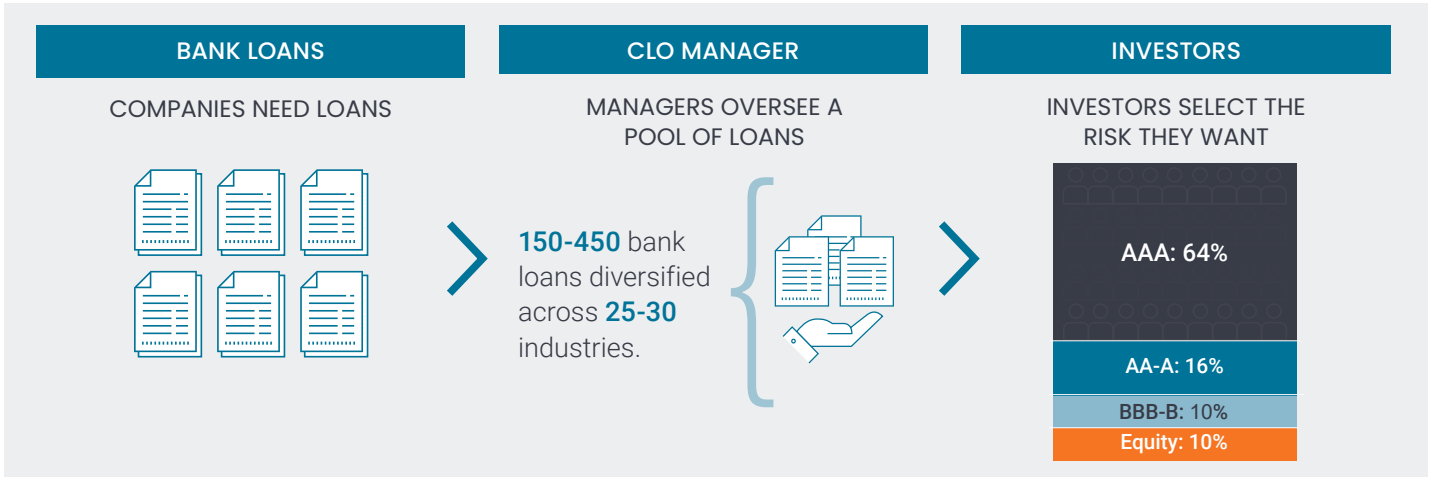
Securitizations are financial instruments (bonds) created via the **bundling of contractual debt**, such as bank loans, mortgages, auto loans, or credit card receivables. These bundles are repackaged into buckets – or tranches – of varying credit qualities and sold to investors. Investors receive the cash flows from the underlying loans (in the form of interest and principal payments) as a return on their investment.



How are CLOs created?

CLOs are constructed by a CLO manager who selects bank loans to place in a portfolio. The manager issues CLO securities in buckets – or tranches – of varying credit quality, ranging from AAA to BB, plus an equity tranche. As borrowers make payments on their loans, those cash flows are passed through to investors.

Typical CLO securitization

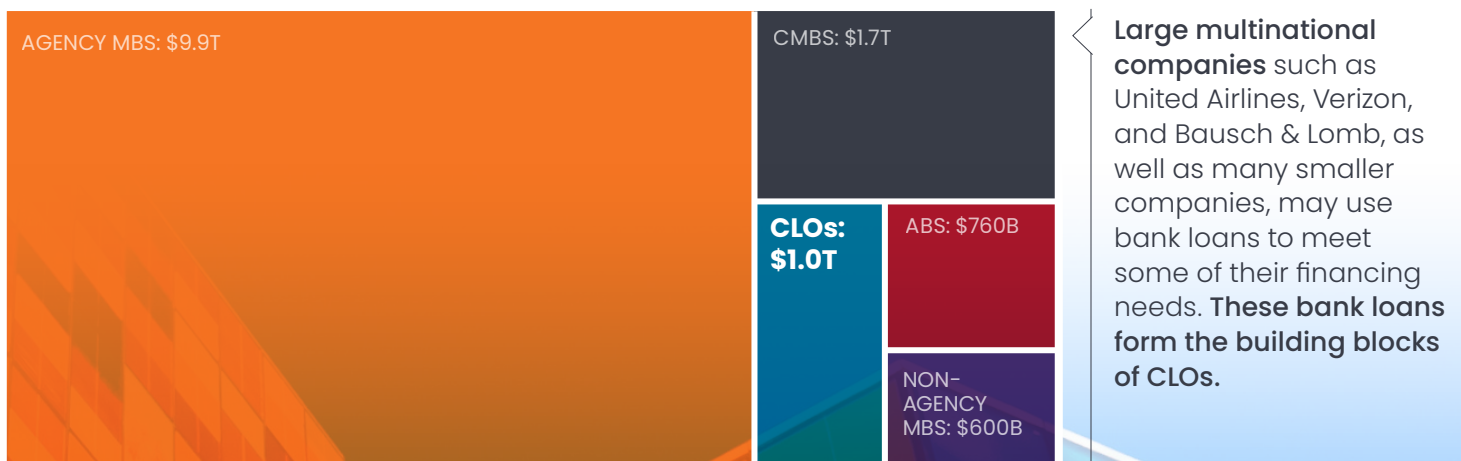


Size and history of the CLO market

CLOs have been a part of the U.S. securitized products market since the late 1980s. Historically, most CLOs were privately sold to large institutional investors such as banks, insurance companies, and asset management companies. But as the market has grown, CLOs have become more broadly accessible to retail investors.

At around \$1.0 trillion in assets, and over \$100 billion in annual new issuance in 2022 and 2023, the CLO market is large, liquid, and fast approaching the \$1.3 trillion U.S. high-yield market in terms of size.¹

CLOs make up a significant portion of the \$14 trillion U.S. securitized market



Source: Bank of America, as of December 2023.

Six key characteristics of CLOs

1. Strong credit ratings

In a typical CLO structure, roughly 80% of the securities are rated AAA through A. Investors may ask, how is it that the underlying bank loans are rated below investment grade, but once the loans are securitized, over 80% of the new securities are rated AAA through A? There are three key reasons:

- **Security selection** – CLO managers can analyze each loan’s terms and the borrower’s credit metrics as they select which loans to include in the securitization. The manager’s ability to curate what goes into the securitization significantly impacts the overall credit quality of the CLO issue. The CLO manager may also trade loans in and out of the portfolio during a reinvestment period, with the goal of improving credit quality and risk-adjusted returns.
- **Diversification** – CLOs, as portfolios, are more diverse than a random sample of bank loans because the CLO manager aims to diversify the CLO in terms of number of loans and industry risk. A typical CLO structure may contain 150-450 loans from 25-30 industries.
- **Structure** – CLO managers regularly test whether the CLO structure has sufficient collateral. If not, the structure diverts cash flows originally intended for the lower-rated tranches to the higher tranches, starting with AAA, thus prioritizing higher-rated securities.

CLOs have historically had significantly lower default rates than the broader loan market. Following the Global Financial Crisis (GFC), bank loan default rates have generally hovered in the 1% to 2% range, outside of spikes in December 2014/ January 2015 and September 2020, when they reached 4.3%.² CLO defaults, in contrast, peaked in 2002 at just below 0.5% and have been either zero or negligible ever since.³

In fact, **no AAA rated CLO has ever defaulted** in the asset class’s 30+ year history, and there were no impairments to investment-grade CLOs through the GFC.

2. A structure that honors credit quality

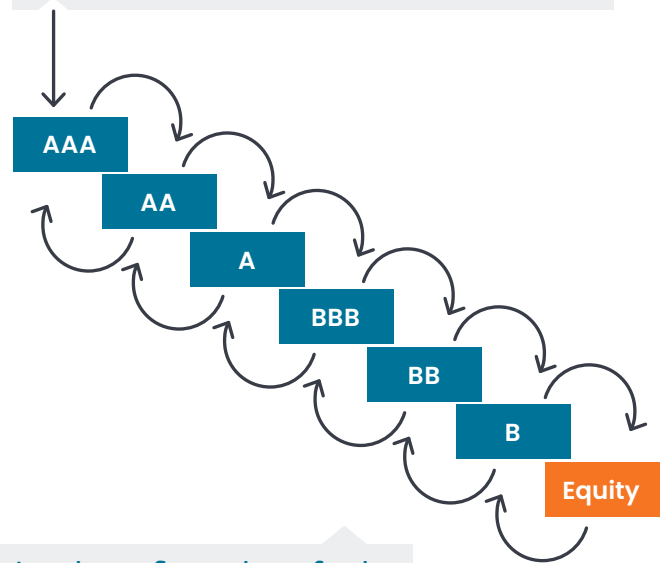
CLOs are structured so that the AAA tranche is first to receive payments from the underlying loans. Once payments to the AAA securities have been fulfilled, the AA tranche receives its payments, and so on. This is sometimes referred to as a waterfall structure. The structure fulfills payments all the way down to the equity tranche unless there are defaults to the underlying loans.

In the event of defaults, CLOs provide additional credit enhancement. If at any point there is insufficient collateral in the CLO, the cash flows originally intended for the lower-rated tranches are diverted to the higher-rated tranches, starting with the AAA tranche and working down. Therefore, in a time of market stress, the credit quality of the higher-rated tranches generally improves.

The net effect is that more than 70% of the loans in a typical CLO structure would need to default to result in an impairment of the AAA tranche.⁴ To provide some perspective, the highest default rate during the GFC was 12%.⁵

CLO waterfall structure

Returns flow down, with loan repayments flowing to the AAA tranche first. The AAA tranche is last in line to incur losses.



3. Floating interest rates

Floating-rate securities such as CLOs pay a yield that rises and falls with a benchmark interest rate, such as SOFR (Secured Overnight Financing Rate). Because the coupon “floats” over the prevailing interest rate, the prices of floating-rate bonds are less sensitive to changes in rates than fixed-rate bonds. (Prices of fixed-rate bonds go down when rates rise, and vice versa.)

Most bonds issued in the U.S. are fixed-rate bonds, making high-quality floating-rate bonds hard to find. Many investors have traditionally favored buying below-investment grade bank loans directly to get floating rate exposure, but have had to accept lower credit quality to do so. With CLOs, investors can gain floating-rate exposure from investment-grade assets.

CLOs may offer many advantages over bank loans

| | LOANS | CLOs |
|-----------------------|-------|------|
| FLOATING-RATE YIELDS | ✓ | ✓ |
| GREATER DIVERSITY | X | ✓ |
| INVESTMENT GRADE | X | ✓ |
| CASH-FLOW PROTECTIONS | X | ✓ |
| GREATER LIQUIDITY | X | ✓ |

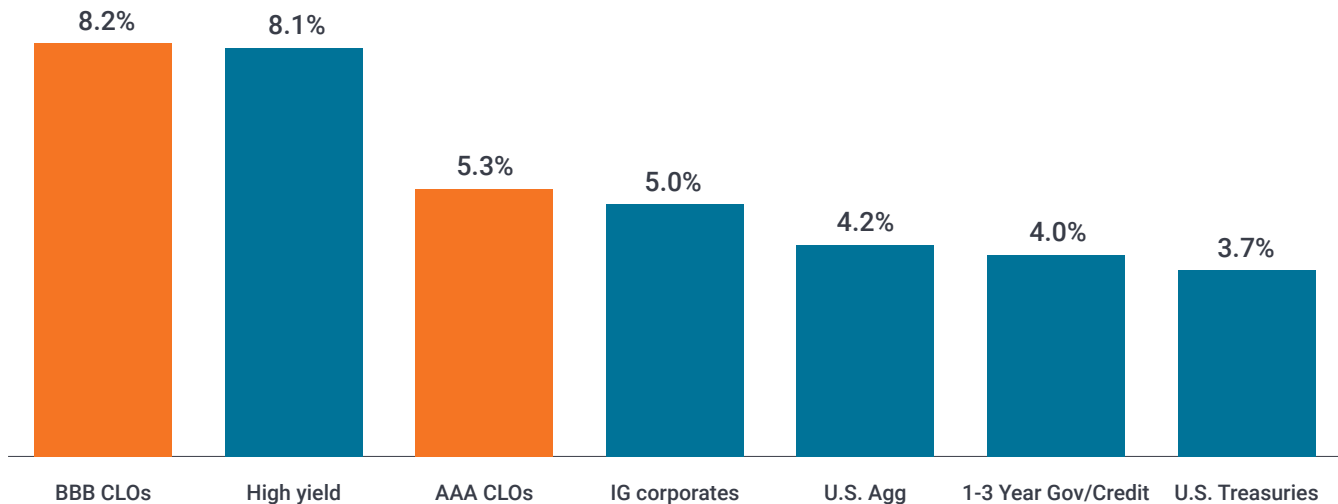
4. Attractive yields

Despite their higher credit ratings, CLOs offer attractive yields relative to other fixed income assets. BBB rated CLOs tend to offer yields closer to the sub-investment grade bank loan and high-yield corporate bond markets. AAA tranches typically offer yields comparable to corporate bonds, notwithstanding their higher average credit quality.

One explanation for the higher yields is the relative newness of the market, including many investors’ lack of familiarity with CLOs.

Average yield to worst

CLOs have historically offered attractive yields



Source: Bloomberg, JP Morgan, as of 29 December 2023. Average yield to worst: January 2021 - December 2023. Indices used to represent asset classes as per footnote 6 on page 7. **Past performance does not predict future returns.**

5. Diversification

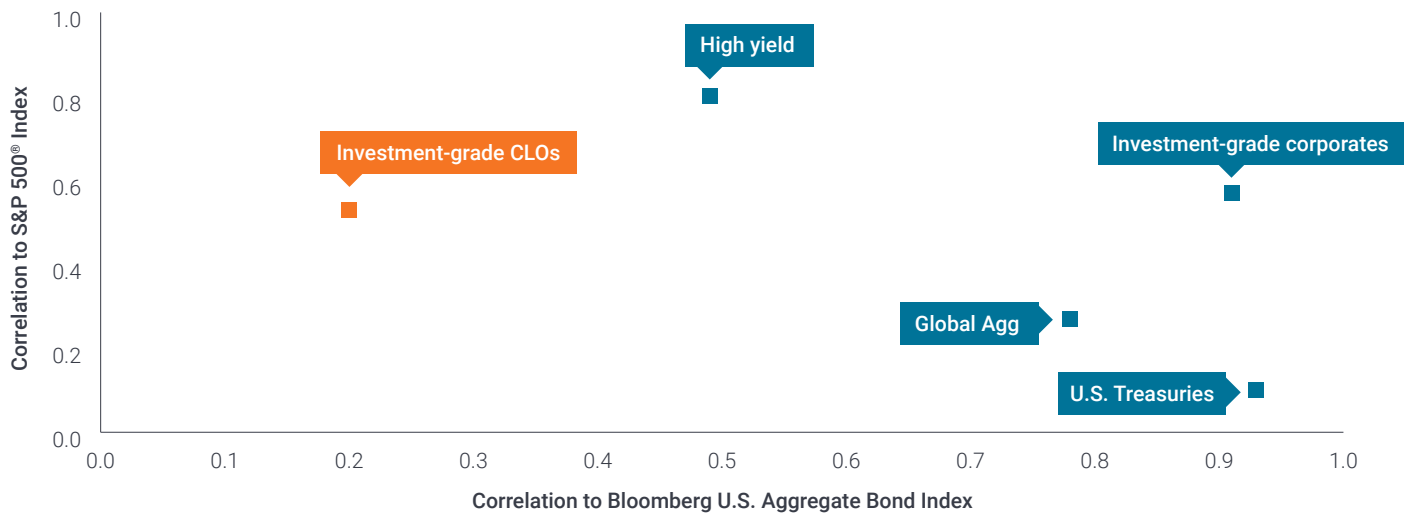
Most benchmark indexes, such as the Bloomberg U.S. Aggregate Bond Index, the Bloomberg U.S. Corporate High Yield Index, and the Bloomberg Global Aggregate Bond Index, are comprised of 100% fixed-rate bonds. Portfolios that are exclusively allocated to these indexes are negatively correlated to changes in interest rates – their prices go down when interest rates rise.

CLOs offer diversification from many fixed income markets insofar as they have exhibited relatively low correlations to the major asset classes. Given their floating-rate yields, the low correlation to fixed-rate bonds is not surprising.

Allocations to CLOs may help investors diversify a traditional fixed income portfolio, offering lower volatility, higher credit-quality, and less sensitivity to changes in interest rates. For multi-asset portfolios, CLOs may be a good diversifier because of their low combined correlation to equities and fixed income.

Historical correlation

CLOs display low combined correlation to equities and fixed income



Source: Bloomberg, as of 31 December 2023. Monthly correlations for 10-year period from December 2013 to December 2023. Indices used to represent asset classes: as per footnote 6 on page 7. **Past performance does not predict future returns.**

6. Liquidity

Liquidity risk – the risk that an investor will not be able to quickly and easily sell an asset – is a key consideration for investors.

The strong growth of the CLO market has been accompanied by increased trading volumes and improving liquidity. In March 2020, when bond market volatility was peaking and volumes in many fixed income markets fell precipitously, trading volume in CLOs surged.

Meanwhile, the number of CLO managers has grown steadily, increasing both liquidity in the secondary market and willingness on the part of broker/dealers to transact and hold the products.

Risk considerations

CLOs are complex instruments and subject to certain risks. While they generally have high credit quality ratings, the underlying loans are issued to below-investment grade corporations. Those companies' revenues and cash flows are subject to changes in the economic cycle, which could impair their ability to make loan payments, thereby impacting distributions to the CLO structure.

Conversely, borrowers have the ability to pay off their loans early, making CLOs subject to prepayment risk, which potentially could lead to lower reinvestment interest rates for investors.

However, the securitization process and capital structure of CLOs are designed to mitigate these risks. In fact, historically low impairment rates in CLOs have shown the structure's effectiveness, particularly for higher-rated tranches.

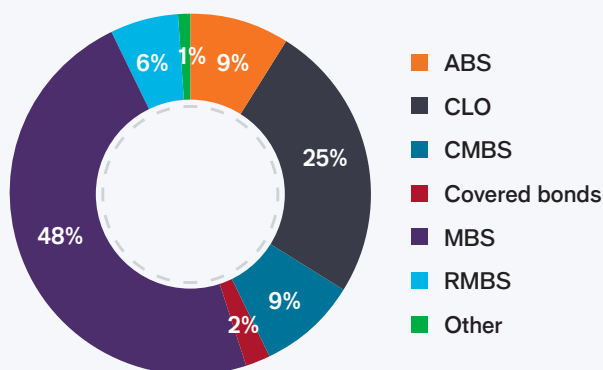
JANUS HENDERSON: SECURITIZED SPECIALISTS

We believe much of the value in active bond asset management comes from security selection. Characteristics of individual securities and CLO managers can vary widely, and it is the role of the asset manager – ideally armed with decades of experience and sophisticated analytic systems – to pick securities that offer better risk-reward potential and combine them into a portfolio with the yield and risk targets that investors seek.

We offer access to the growing and complex securitized market through our single-sector and full coverage products.

Janus Henderson securitized

▶ **\$26.8B**
in firmwide securitized assets



Source: Janus Henderson Investors, Bloomberg, Morningstar, as of 31 Dec 2023. Note: Firmwide assets include securitized products available outside of the U.S. and securitized portions of other fixed income strategies.

Dedicated CLO expertise



John Kerschner, CFA

- Head of U.S. Securitized Products, Portfolio Manager
- 33 years of financial industry experience



Nick Childs, CFA

- Portfolio Manager
- 20 years of financial industry experience



Jessica Shill

- Securitized Products Analyst, Portfolio Manager
- 6 years of financial industry experience

¹ Citibank, Bloomberg, as of December 2023.

² JPMorgan, Janus Henderson Investors, S&P/LSTA Leveraged Loans Index, as of January 2023.

³ SIFMA, as of June 2021.

⁴ Janus Henderson Investors, as of December 2023.

⁵ JPMorgan, "CLOs: not the CDOs of yore," June 2020.

⁶ Indices used to represent asset classes: AAA CLOs = J.P. Morgan CLO AAA Index, BBB CLOs = J.P. Morgan CLO BBB Index, Investment-grade CLOs = J.P. Morgan CLOIE Index, High yield = Bloomberg U.S. Corporate High Yield Bond Index, Investment-grade (IG) corporates = Bloomberg U.S. Corporate Bond Index, U.S. Treasuries = Bloomberg U.S. Treasuries Index, Global Agg = Bloomberg Global Aggregate Bond Index, U.S. Agg = Bloomberg U.S. Aggregate Bond Index, 1-3 Year Gov/Credit = Bloomberg U.S. 1-3 Year Gov/Credit Index.

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Investing involves risk, including the possible loss of principal and fluctuation of value.

The **Bloomberg Global Aggregate Index** is a flagship measure of global investment grade debt from a multitude of local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

The **Bloomberg U.S. Asset-Backed Securities (ABS) Index** is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index only includes ABS securities.

The **Bloomberg U.S. Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

The **Bloomberg U.S. Commercial Mortgage-Backed Securities (CMBS) Investment Grade Index** measures the investment-grade market of U.S. Agency and U.S. Non-Agency conduit and fusion CMBS deals with a minimum current deal size of \$300m.

The **Bloomberg U.S. Corporate Bond Index** measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

The **Bloomberg U.S. Corporate High Yield Bond Index** measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below.

The **Bloomberg U.S. Mortgage-Backed Securities (MBS) Index** tracks fixed-rate agency mortgage backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

Collateralized Loan Obligations (CLOs) are debt securities issued in different tranches, with varying degrees of risk, and backed by an underlying portfolio consisting primarily of below investment grade corporate loans. The return of principal is not guaranteed, and prices may decline if payments are not made timely or credit strength weakens. CLOs are subject to liquidity risk, interest rate risk, credit risk, call risk and the risk of default of the underlying assets.

S&P 500® Index reflects U.S. large-cap equity performance and represents broad U.S. equity market performance.

Floating-rate yields: Floating-rate securities pay a yield that rises and falls with the prevailing interest rate, making their prices less sensitive to changes in rates.

Investment-grade securities: A security typically issued by governments or companies perceived to have a relatively low risk of defaulting on their payments. The higher quality of these bonds is reflected in their higher credit ratings when compared with bonds thought to have a higher risk of default, such as high-yield bonds.

Cash-flow protections: The manager of a CLO is required to periodically ensure that there is more than enough collateral in the underlying loans to support the interest and principal for each tranche (or rating tier) of the CLO, starting with the AAA tranche and working down the rating tiers. If, at any point, there is insufficient collateral, the cash flows originally intended for the lower-rated tranches are diverted to the highest-rated tranches. As such, in a time of stress, the AAA tranches could be repaid sooner than expected, as opposed to later or less.

Tranche: In securitized products like CLOs, a tranche is one of a number of related securities offered as part of the same transaction, with each representing a different degree of risk and carrying a commensurate credit rating.

Credit quality ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest).

Concentrated investments in a single sector, industry or region will be more susceptible to factors affecting that group and may be more volatile than less concentrated investments or the market as a whole.

Correlation is a statistic that measures the degree to which two securities move in relation to each other.

Diversification is a common investment strategy that entails buying different types of investments to reduce the risk of market volatility.

Yield to worst is a measure of the lowest possible yield that can be received on a bond that fully operates within the terms of its contract without defaulting.

Derivatives can be more volatile and sensitive to economic or market changes than other investments, which could result in losses exceeding the original investment and magnified by leverage.

Actively managed portfolios may fail to produce the intended results. No investment strategy can ensure a profit or eliminate the risk of loss.

Index performance does not reflect the expenses of managing a portfolio as an

index is unmanaged and not available for direct investment.

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