

# Structured Products Briefing

Phil Gioia, CFA | Third Quarter 2023



## Sector Summary

### Agency Mortgage-Backed Securities ..... 3

#### ***The Worst Is Likely Behind Us***

- Agency mortgage-backed securities (MBS) returned negative 4.1% in the third quarter, underperforming U.S. Treasuries, which returned negative 3.1%.
- Federal Deposit Insurance Corp. (FDIC) sales continued at a robust pace in the quarter, and DoubleLine expects sales to be completed by early November.

### Non-Agency Residential Mortgage-Backed Securities ..... 4

#### ***Economics 101: Supply and Demand Push Home Prices Higher***

- Residential credit performance was largely strong during the quarter, driven in part by higher home prices and relatively strong demand for non-Agency residential MBS (RMBS) new issuance.
- Absent a significant change in economic conditions, we believe the market landscape will remain supportive of spreads for the remainder of the year.

### Non-Agency Commercial Mortgage-Backed Securities ..... 5

#### ***Survive Until 2025***

- The commercial real estate (CRE) market continued to struggle in the quarter, due in part to a convergence of higher borrowing costs, lower valuations, tightening lending standards and a looming economic slowdown.
- With interest rates likely to remain higher for longer, we expect non-Agency commercial MBS (CMBS) new issuance to remain subdued through year-end, which might bode well for potential spread tightening.

### Asset-Backed Securities ..... 6

#### ***Odds for Soft Landing Increase, Although Turbulence Likely to Persist***

- Returns for asset-backed securities (ABS) were mostly positive in the quarter, with senior-rated ABS slightly outperforming mezzanine portions of the capital structure while spreads across subsectors were mixed.
- Return potential remains particularly compelling, as many ABS are priced off the front end of the Treasury yield curve, which offers higher yields compared to other Treasury tenors.

### Collateralized Loan Obligations ..... 7

#### ***Hawkish Pause Leaves Room for One More Hike***

- Collateralized loan obligations (CLOs) rated AAA returned 2.4%, and CLOs rated BBB returned 5.4% in the quarter, driven largely by interest income and spread tightening.
- With one more potential rate hike before year-end and loan technicals expected to remain supportive, we believe CLOs continue to offer attractive relative value, although we expect bouts of volatility in the near term.

## Summary of DoubleLine Positioning

### Agency MBS

Alpha-generation opportunities exist through pass-through (PT) coupon and collateral selection as well as mispricing in collateralized mortgage obligations (CMOs).

#### Positioning

- (+) Belly of the coupon PT stack (3.0% to 4.5%) that offers wider spreads relative to low coupons and exhibits stronger convexity profiles than current coupon originations
- (+) Discount dollar price CMOs with yields in the midsingle digits and that offer strong total return potential
- (-) Lower-coupon PTs that are a large component of the Bloomberg US MBS Index and Federal Reserve balance sheet

### Non-Agency RMBS

Bond structures and future expected cash flows drive security selection based on the investment team's outlook on the direction of the economy, interest rates and housing market.

#### Positioning

- (+) New-issue non-qualified mortgages (QMs) with all-in yields of approximately 6.5% to 7% for bonds rated AAA and approximately 8% for bonds rated BBB
- (+) Seasoned credit risk transfer (CRT) bonds that offer strong total return potential due to structural deleveraging, limited CRT issuance and resilient housing fundamentals
- (-) Less seasoned collateral and higher loan-to-value (LTV) ratios that likely underperform in an economic slowdown

### Non-Agency CMBS

Careful curation of collateral, coupled with active management of property sector exposure has the potential to enhance absolute and risk-adjusted returns across differing economic environments.

#### Positioning

- (+) Senior-rated seasoned bonds with multiborrower pools that have delevered through time, exhibit limited extension risk and are well insulated from credit risk
- (+) Well-located nonoffice property types with strong cash flow and sponsorship with low refinancing risk
- (-) Cautious on lower-rated non-Agency CMBS until there is more clarity on fundamentals
- (-) Underweight properties with near-term loan maturities that might be vulnerable to default if borrowers are unable to refinance or negotiate a loan extension

### ABS

We employ a holistic approach that encompasses all ABS subsectors and invests up and down the entire capital structure, which helps our team identify the most-opportune investments, potentially maximizing returns while minimizing risk for our investors.

#### Positioning

- (+) Consumer deals priced off front-end Treasury rates that offer higher yields given the curve inversion
- (+) Hard-asset securitizations with strong liquidity profiles such as data infrastructure that exhibit stable cash flows and provide spread pickup to unsecured consumer bonds
- (-) Underweight subprime consumer deals where delinquencies and defaults have surpassed levels observed prior to the COVID-19 pandemic
- (-) Underweight subprime auto loans rated below investment grade (IG) with high LTVs and worsening fundamentals

### CLOs

The team uses a three-pronged approach analyzing the collateral, structure and manager.

#### Positioning

- (+) Deals exiting their reinvestment period with collateral pools endorsed by DoubleLine's Global Developed Credit team for their ability to be refinanced
- (+) Discount dollar price new-issue CLOs rated AAA to A with yields in the mid- to high single digits and offer strong total return potential
- (-) Cautious on below IG CLOs outside of their reinvestment period

### Agency Mortgage-Backed Securities

#### The Worst Is Likely Behind Us

Agency MBS returned negative 4.1% in the third quarter, underperforming Treasuries, which returned negative 3.1%, driven largely by modest Agency MBS spread widening.<sup>1</sup> Current coupon spreads ended the quarter at 177 basis points (bps), approximately 15 bps wider quarter-over-quarter (QoQ).

Interest rate volatility remained elevated in the period as the two-year Treasury yield rose 15 bps and 10-year Treasury yield rose 73 bps. The Federal Open Market Committee (FOMC) increased the target federal funds rate (FFR) 25 bps at its July meeting while pausing in September. Although the FFR remained unchanged in September, the FOMC delivered a tighter policy outlook. The Summary of Economic Projections signaled the possibility of one more hike in 2023, but two fewer cuts in 2024, amid higher growth projections and lower inflation. Chairman Jerome H. Powell reiterated at his September press conference the Fed's commitment to reducing its securities holdings at a brisk pace.

FDIC sales continued at a robust pace in the quarter. As of Sept. 29, 100% of PTs and roughly 85% of the entire Agency portfolio had been sold. (Figure 1) We expect sales to be completed by early November, which would help alleviate some technical headwinds. Overall gross issuance is expected to fall through the beginning of 2024, driven in part by higher rates and waning housing activity heading into the winter months.

Looking ahead, it is difficult to see a scenario in which Agency MBS underperform Treasuries in a meaningful way. While uncertainty remains around the path of the FFR, the futures market is pricing in rate cuts in 2024. Lower rates and an environment of lower rate volatility should be supportive of Agency MBS spreads. That said, the Fed's balance sheet runoff is expected to continue even after rate cuts begin, and bank demand is likely to remain muted until there is conviction that the Fed is done hiking and regulatory changes become solidified.

We continue to believe Agency MBS present an attractive entry point as spreads remain near their widest levels in over a decade. (Figure 2) Further, given that many Agency MBS trade at discounted dollar prices, and extension and prepayment risks are minimal, this implies a more attractive return per unit of risk profile going forward. (See: [The Case for Agency Mortgage-Backed Securities](#)) We also see attractive relative value in Agency CMBS, as spreads have been supported by strong technicals, and the sector does not face the same Fed balance sheet runoff and FDIC supply issues that the single-family market does.

#### FDIC Holdings and Sale Progress | As of September 29, 2023

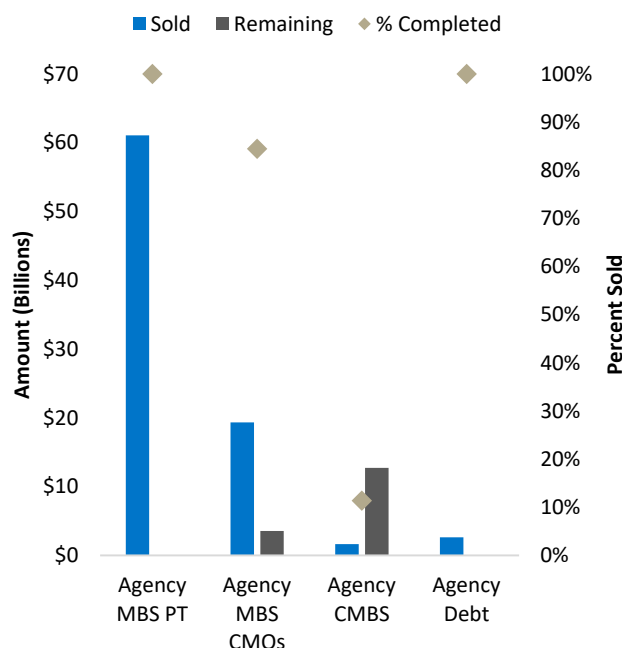


Figure 1

Source: DoubleLine, J.P. Morgan. Collateralized Mortgage Obligations (CMOs)

#### Agency MBS Current Coupon Spread | As of September 29, 2023

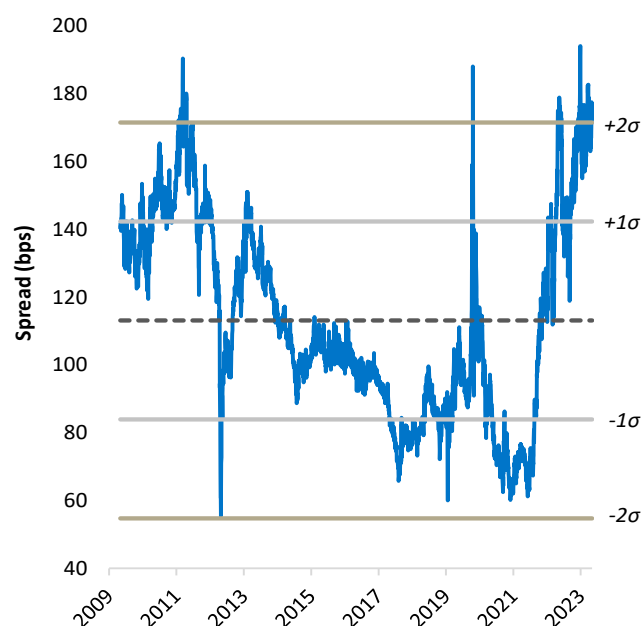


Figure 2

Source: DoubleLine, Bloomberg. Dashed line represents average MBS current coupon spread.  $\sigma$  = standard deviation

### Non-Agency Residential Mortgage-Backed Securities

#### Economics 101: Supply and Demand Push Home Prices Higher

Residential credit performance was largely strong during the quarter, driven in part by higher home prices and relatively strong demand for non-Agency RMBS new issuance.

New issuance was approximately \$17 billion in the quarter, bringing year-to-date (YTD) volume to \$49 billion, roughly 60% less than the same period in 2022.<sup>2</sup> Investor demand for new-issue residential credit was steady, and credit curves across subsectors flattened. Improving housing market fundamentals provided support for investing down the capital structure, where spreads on non-QM bonds rated BBB tightened 100 bps.<sup>3</sup> Spreads on non-QM bonds rated AAA widened 5 bps, driven in part by wider Agency MBS spreads. YTD, lower-rated CRT tranches have been one of the best-performing asset classes in securitized credit, driven by a strong technical environment and higher short-end interest rates.

After reaching local lows in January, national home prices rose for six consecutive months, resulting in a combined gain of 3.3% from February through July.<sup>4</sup> (Figure 3) Limited supply helped push home prices higher, as the number of single-family homes available continued to fall at an accelerated pace. Total homes available for sale decreased 14.1% year-over-year (YoY) in August, the sharpest drop since June 2021, with the contraction coming in both new and existing listings. (Figure 4) Limited supply should continue to provide support to home prices even as affordability has become challenged.

On the demand side, new-home sales have generally been strong, however, broader demand has remained largely stagnant. New-home sales were up 5.8% YoY while existing-home sales contracted 18.8% YoY in August, driven in part by the influence of the lock-in effect of low mortgage rates as approximately 75% of existing homeowners have mortgage rates of 4% or lower.<sup>5</sup> Higher mortgage rates and the accompanying decrease in affordability will likely continue to weigh on both new- and existing-home sales.

Although affordability is low and mortgage rates are high, supply remains tight, which should mitigate risks of a major correction. Absent a significant change in economic conditions, we believe the market landscape will remain supportive of spreads for the remainder of the year.

#### Home Price Appreciation | As of July 31, 2023

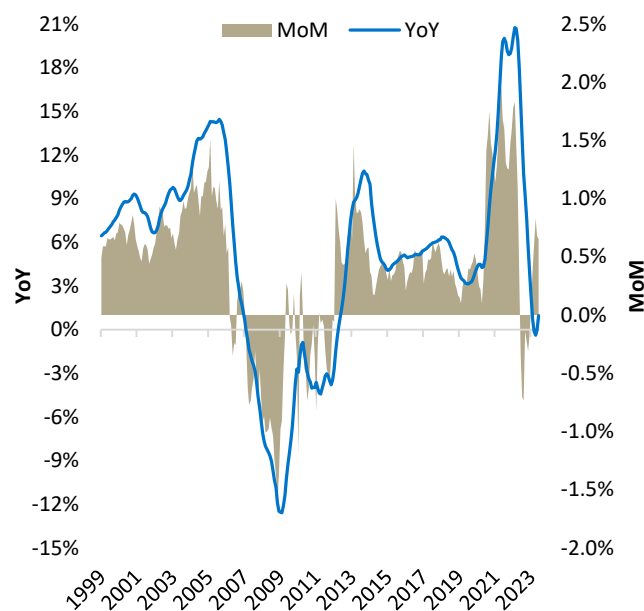


Figure 3

Source: DoubleLine, S&P CoreLogic Case-Shiller U.S. National Home Price SA Index Month-over-Month (MoM), Year-over-Year (YoY)

#### Home Supply vs. Demand | As of August 31, 2023

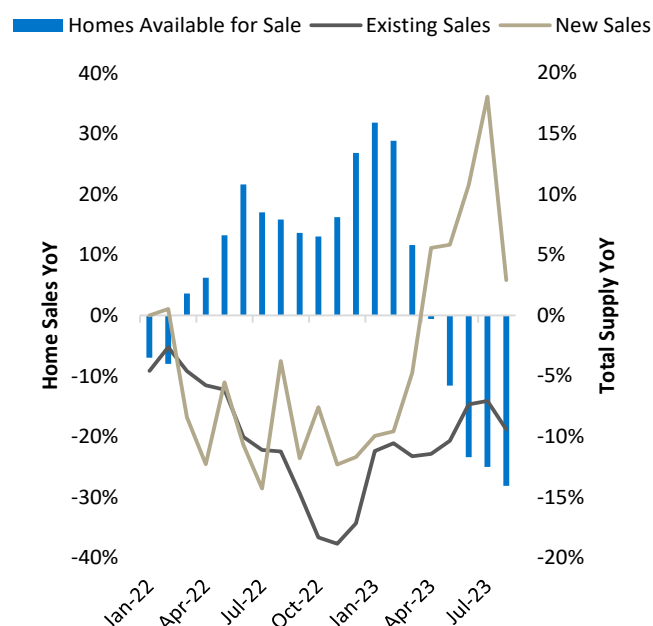


Figure 4

Source: DoubleLine, Bloomberg

### Non-Agency Commercial Mortgage-Backed Securities

#### Survive Until 2025

CRE headlines continued to garner outsized negative attention in the quarter, as the market struggled with a convergence of higher borrowing costs, lower valuations, tightening lending standards and a looming economic slowdown.

Broadly speaking, private-label CMBS activity has been considerably more subdued relative to last year, as higher interest rates have limited borrowers' ability and willingness to acquire new properties or refinance maturing loans. YTD through Sept. 30, private-label CMBS issuance was \$39 billion, roughly 56% below the same period last year.<sup>6</sup> Perhaps unsurprisingly, exposure to office collateral among conduit deals priced this year comprised only 21%, a sharp reduction relative to the past decade, as the new-issue market has self-corrected based on individual property-type fundamental outlooks and investor appetite. (Figure 5)

The rising interest-rate environment and surge in borrowing costs have weighed on deal activity and pricing across property sectors. Deal volume through August was 58% lower than the same period of 2022.<sup>7</sup> Amid a sustained retreat in deal activity, all major U.S. property sectors again posted annual price declines in August as the RCA U.S. All-Property Commercial Property Price Index fell 9.9% YoY. In a hopeful sign that conditions might be changing, much of that decline came at the end of 2022 and beginning of this year.

Given higher rates, we expect varying degrees of impact to CRE valuations. The office sector will be more challenged given ongoing changes in work patterns coupled with a lack of financing options that magnifies issues in this area. Beyond portions of the office market, capital markets have largely remained open, particularly for smaller loans and loans backed by properties that have benefited from multiple years of price appreciation and have stable cash flows. (Figure 6)

Clearer messaging from the Fed might help to resolve much of the lingering uncertainty and allow the CRE market to begin to function more normally. Until that occurs, however, we expect limited transaction activity, broad-based CRE price opacity and a continued reticence to refinance. With interest rates likely to remain higher for longer, we expect new issuance to remain subdued through year-end, which might bode well for potential spread tightening to the extent there is investor demand for deals backed by properties with stable fundamentals. (See: [Commercial Real Estate Fundamentals Update](#))

**Conduit Deal by Vintage** | As of August 31, 2023

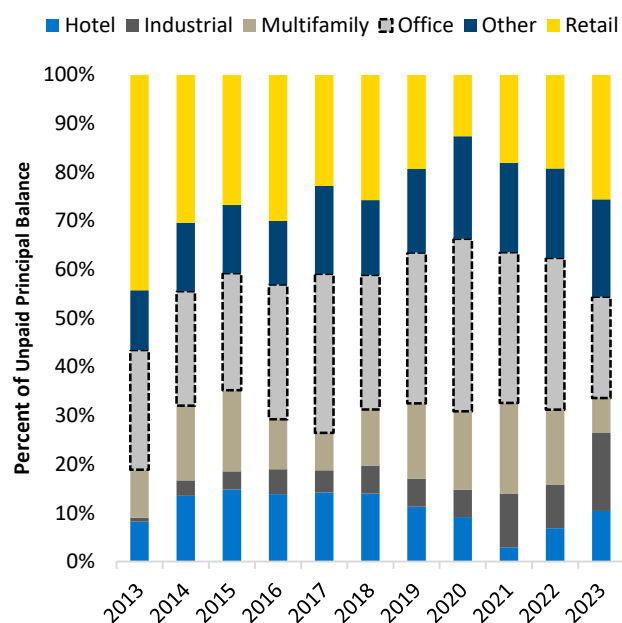


Figure 5

Source: DoubleLine, BofA Global Research

**Conduit Deal by Loan Size (\$ Millions)** | As of August 31, 2023

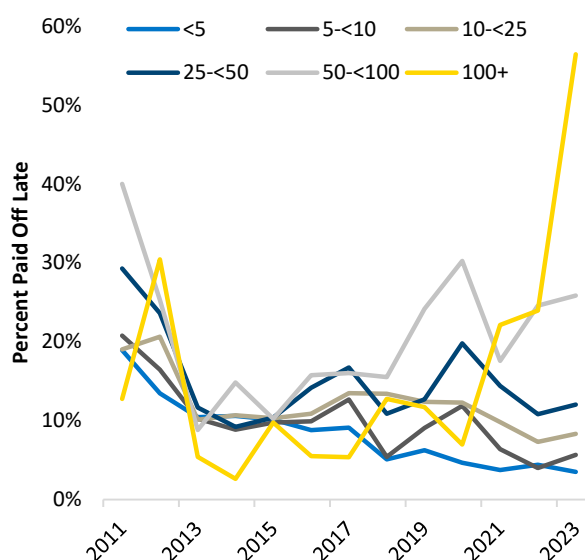


Figure 6

Source: DoubleLine, BofA Global Research

### Asset-Backed Securities

#### Odds for Soft Landing Increase, Although Turbulence Likely to Persist

Returns for ABS were mostly positive in the quarter, with senior-rated ABS slightly outperforming mezzanine portions of the capital structure while spreads across subsectors were mixed.<sup>8</sup> New-issue volume was steady with \$78.4 billion pricing, bringing YTD volume to \$213.9 billion, up 4.9% relative to the same period in 2022.<sup>9</sup>

The labor market, which has been the key to consumer health, has remained supportive with historically low levels of unemployment. While job openings have declined recently, there were still 1.5 jobs available for every unemployed job seeker as of Aug. 31. Despite a historically strong labor market, consumer delinquencies (DQ) and net loss rates have trended higher since the middle of 2021, moving away from historic lows reached during the pandemic. Broadly speaking, borrowers with lower credit scores have experienced the largest increase in DQs and defaults, as these borrowers tend to be more sensitive to higher inflation. Higher prices have contributed to falling savings rates, particularly for lower-wage earners, as the bottom 80% of households by income experienced lower bank deposits and other liquid assets relative to March 2020.<sup>10</sup> (Figure 7)

Our expectations for continued deterioration in credit trends leads us to prefer senior-rated consumer bonds. That said, we believe ABS broadly offer attractive relative value with the potential for strong performance across various scenarios. The increasing likelihood of the Fed achieving a soft landing while effectively taming inflation bodes well for potential spread tightening across ABS subsectors. We remain optimistic on newly originated consumer ABS, given tighter lending standards and spreads that have factored in increased default probabilities. Relative return potential remains particularly compelling as many ABS are priced off the front end of the Treasury yield curve, which offers higher yields compared to other Treasury tenors and equates to attractive all-in ABS yields compared to investment grade corporate bonds. (Figure 8) If rates continue higher in the near term, shorter-duration ABS might help reduce marked-to-market volatility.

For investors who can actively manage exposure to collateral with more favorable fundamental outlooks and avoid idiosyncratic risks, we continue to believe ABS can potentially provide attractive risk-adjusted return opportunities. (See: [An Update on the U.S. Consumer and Opportunities in the ABS Market](#))

#### U.S. Excess Savings Depleted for Bottom 80% of Households by Income | As of June 30, 2023

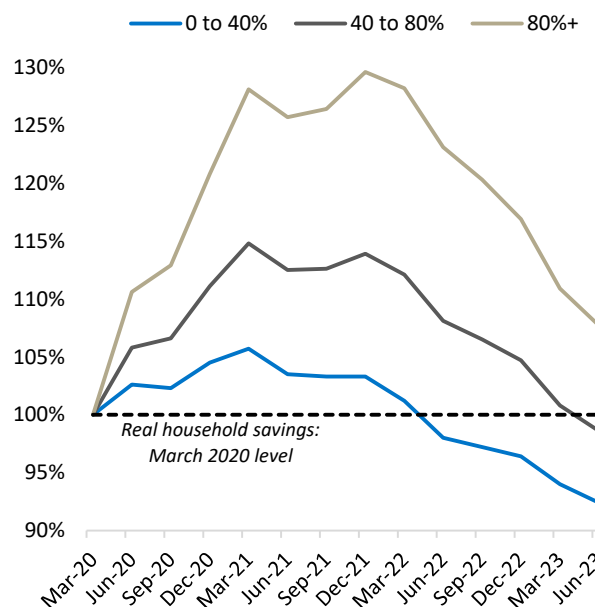


Figure 7  
Source: DoubleLine, Federal Reserve

#### Yield vs. Weighted Average Life | As of September 29, 2023

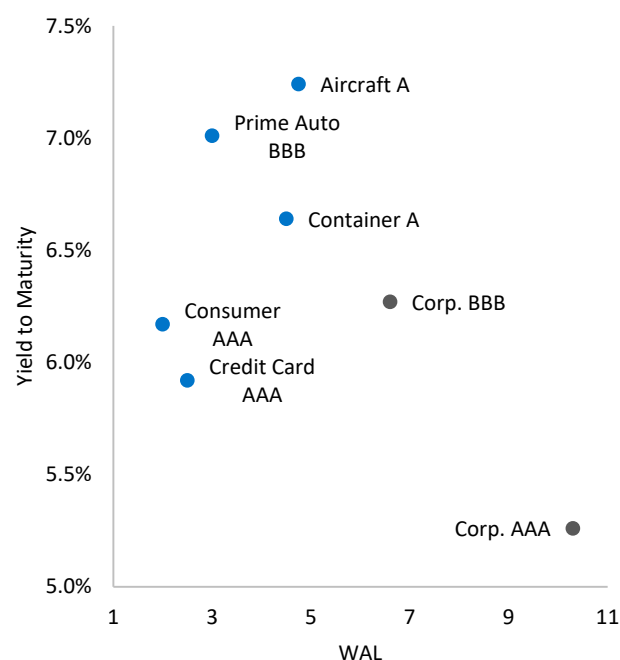


Figure 8  
Source: DoubleLine, Bloomberg, ICE BofA Indexes. Weighted Average Life (WAL)



### Collateralized Loan Obligations

#### Hawkish Pause Leaves Room for One More Hike

CLOs continued their streak of strong performance in the quarter, driven by a more benign economic outlook, interest income and spread tightening. CLOs rated AAA returned 2.4%, and CLOs rated BBB returned 5.4%.<sup>11</sup> YTD, CLOs rated BBB are up 12.5% and have been one of the best-performing fixed-income asset classes this year. Spreads continued to tighten as the discount margin for CLOs rated AAA ended the quarter at 134 bps, 28 bps tighter than June 30. CLOs rated BBB tightened 62 bps QoQ to 417 bps.

U.S. CLO issuance picked up during the quarter as tighter spreads allowed managers to affordably ramp up long-standing CLO warehouses. The period priced \$25.5 billion of new-issue CLOs, up from \$22.4 billion in the second quarter.<sup>12</sup> YTD, CLO issuance totaled \$81.4 billion, down 23% YoY.

While balance sheets for most U.S. leveraged loan issuers are in a generally healthy position, credit metrics have largely weakened this year and are expected to continue to show signs of deterioration. Loan coupons have more than doubled to approximately 9% from 4% in 2021.<sup>13</sup> Interest coverage ratios are likely to continue to decline given the lagged transmission of higher policy rates to paid coupons.

Reflecting weaker expected operating performance, loan downgrades continued to outpace upgrades in the quarter, with approximately 12% of the loan market having been downgraded this year. Should downgrades ultimately translate into higher default rates, recently issued CLOs rated AAA down to BB likely have sufficient credit enhancement to protect from losses if defaults were to increase to historical averages. (Figure 9)

Heading into the last quarter of the year, CLOs remain a unique asset class from a scalable floating-rate investment opportunity in a higher-for-longer interest rate scenario. With one more potential rate hike before year-end and loan technicals expected to remain supportive, we believe CLOs may continue to offer attractive relative value due to high all-in yields across the capital structure combined with discounted dollar prices. (Figure 10) That said, there might be bouts of volatility in the near term as the market digests the impact of broader macro concerns.

#### Bank Loan Historical Defaults vs. CLO Credit Enhancement As of August 31, 2023

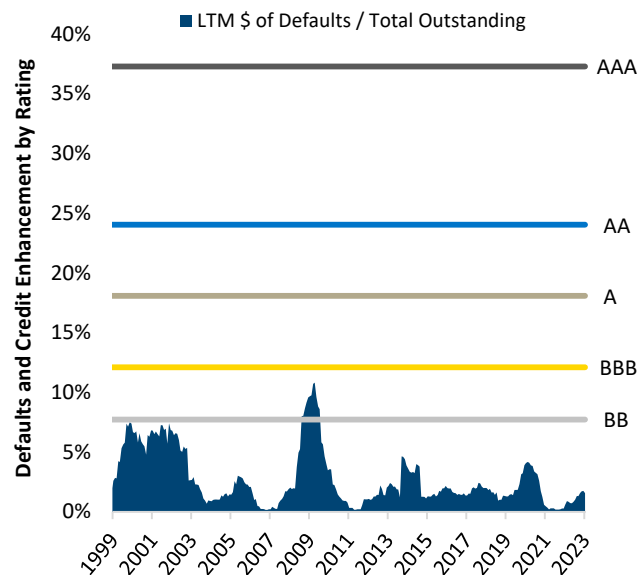


Figure 9

Source: DoubleLine, Morningstar LSTA. Last Twelve Months (LTM).

#### CLO Yields vs. Corporate Bonds | As of September 29, 2023

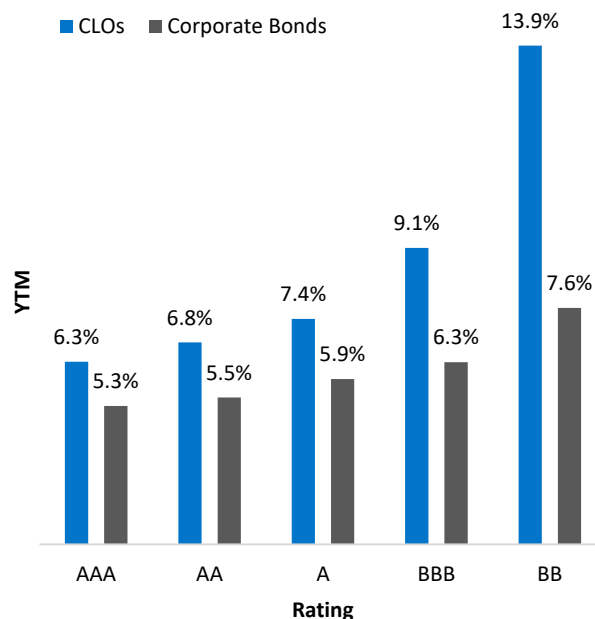


Figure 10

Source: DoubleLine, Palmer Square Indexes, BofA Indexes



**Phil Gioia, CFA**  
Product Specialist

Mr. Gioia joined DoubleLine in 2018. He is a member of the Macro Asset Allocation Team, in which he serves as a Product Specialist. In this capacity, he is responsible for various aspects of DoubleLine product marketing, investment strategy updates, portfolio communications and competitive analysis, with a focus on DoubleLine's Securitized Product strategies. Mr. Gioia is also responsible for producing market commentary and dedicated strategy content. As part of the Macro Asset Allocation team, he attends the Fixed Income Asset Allocation, Macro Asset Allocation, and Structured Product meetings. Prior to DoubleLine, Mr. Gioia was an Investment Product Manager for Fidelity Investments. He holds a B.S. in Financial Management and Business Administration with a minor in Accounting from Salve Regina University and earned a certification for the Applied Data Science Program from Massachusetts Institute of Technology. Mr. Gioia is a CFA® charterholder and holds the FINRA Series 7 and 63 Licenses.

### Footnotes

- <sup>1</sup> Bloomberg US MBS and Bloomberg US Treasury Indexes
- <sup>2</sup> BofA Global Research
- <sup>3</sup> Wells Fargo Research
- <sup>4</sup> S&P CoreLogic Case-Shiller U.S. National Home Price SA Index
- <sup>5</sup> J.P. Morgan Research
- <sup>6</sup> BofA Global Research
- <sup>7</sup> Real Capital Analytics
- <sup>8</sup> ICE BofA Indexes
- <sup>9</sup> BofA Global Research
- <sup>10</sup> Federal Reserve, after adjustments for inflation
- <sup>11</sup> Palmer Square Indexes
- <sup>12</sup> Leveraged Commentary & Data
- <sup>13</sup> BofA Global Research

### Definitions

**Agency** – Refers to mortgage-backed securities (MBS) whose principal and interest are guaranteed by a U.S. government agency such as Fannie Mae (FNMA) or Freddie Mac (FHLMC).

**Alpha** – Term used in investing to describe a strategy's ability to beat the market, or its "edge." Alpha is thus also often referred to as "excess return" or "abnormal rate of return," which refers to the idea that markets are efficient, and so there is no way to systematically earn returns that exceed the broad market as a whole.

**Asset-Backed Securities (ABS)** – Investment securities, such as bond or notes, that are collateralized by a pool of assets, such as loans, leases, credit card debt, royalties or receivables.

**Basis Points (bps)** – Basis points (or basis point (bp)) refer to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01% or 0.0001, and is used to denote the percentage change in a financial instrument. The relationship between percentage changes and basis points can be summarized as: 1% change = 100 basis points; 0.01% = 1 basis point.

**Bloomberg US Mortgage-Backed Securities (MBS) Index** – This index measures the performance of investment grade, fixed-rate, mortgage-backed, pass-through securities of the government-sponsored enterprises (GSEs): Federal Home Loan Mortgage Corp. (Freddie Mac), Federal National Mortgage Association (Fannie Mae) and Government National Mortgage Association (Ginnie Mae).

**Bloomberg US Treasury Index** – This index measures U.S. dollar-denominated, fixed-rate nominal debt issued by the U.S. Treasury with a remaining maturity of one year or more. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

**Collateralized Loan Obligation (CLO)** – Single security backed by a pool of debt.

**Collateralized Mortgage Obligation (CMO)** – Refers to a type of mortgage-backed security that contains a pool of mortgages bundled together and sold as an investment. Organized by maturity and level of risk, CMOs receive cash flows as borrowers repay the mortgages that act as collateral on these securities. In turn, CMOs distribute principal and interest payments to investors based on predetermined rules and agreements.

**Credit Risk Transfer (CRT)** – Pioneered by Freddie Mac in 2013, CRT programs structure mortgage credit risk into securities and (re)insurance offerings, transferring credit risk exposure from U.S. taxpayers to private capital.

**Duration** – Measure of the sensitivity of the price of a bond or other debt instrument to a change in interest rates.

**Federal Funds Rate** – Target interest rate, set by the Federal Reserve at its Federal Open Market Committee (FOMC) meetings, at which commercial banks borrow and lend their excess reserves to each other overnight. The Fed sets a target federal funds rate eight times a year, based on prevailing economic conditions.

**Investment Grade (IG)** – Rating that signifies a municipal or corporate bond presents a relatively low risk of default. Bonds below this designation are considered to have a high risk of default and are commonly referred to as high yield (HY) or "junk bonds." The higher the bond rating the more likely the bond will return 100 cents on the U.S. dollar.

**Loan-to-Value (LTV) Ratio** – Assessment of lending risk that financial institutions and other lenders examine before approving a mortgage. Typically, loan assessments with high LTV ratios are considered higher-risk loans. Therefore, if the mortgage is approved, the loan has a higher interest rate.

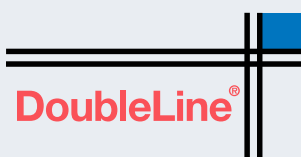
**Mark to Market (MTM)** – Method of measuring the fair value of accounts that can fluctuate over time, such as assets and liabilities. Mark to market aims to provide a realistic appraisal of an institution's or company's current financial situation based on current market conditions. In trading and investing, certain securities, such as futures and mutual funds, are also marked to market to show the current market value of these investments.

**Mezzanine Debt** – Occurs when a hybrid debt issue is subordinated to another debt issue from the same issuer. Mezzanine debt has embedded equity instruments attached, often known as warrants, which increase the value of the subordinated debt and allow greater flexibility when dealing with bondholders. Mezzanine debt is frequently associated with acquisitions and buyouts, for which it may be used to prioritize new owners ahead of existing owners in case of bankruptcy.

**Mortgage-Backed Securities (MBS)** – Investment similar to a bond that is made up of a bundle of home loans bought from the banks that issued them. Investors in MBS receive periodic payments similar to bond coupon payments.

**Non-Agency Commercial Mortgage-Backed Security (CMBS)** – Debt-based security (similar to a bond), backed by the interest paid on loans for commercial properties. "Non-Agency" refers to CMBS not issued by the government-sponsored enterprises.





# Structured Products Briefing

Third Quarter 2023

**Non-Agency Residential Mortgage-Backed Security (RMBS)** – Debt-based security (similar to a bond), backed by the interest paid on loans for residences. The interest on loans such as mortgages, home-equity loans and subprime mortgages is considered to be something with a comparatively low rate of default and a comparatively high rate of interest, since there is a high demand for the ownership of a personal or family residence. “Non-Agency” refers to RMBS not issued by the government-sponsored enterprises.

**Non-Qualified Mortgage (Non-QM)** – Any home loan that doesn’t comply with the Consumer Financial Protection Bureau’s existing rules on qualified mortgages (QMs). Usually this type of alternative mortgage loan accommodates people who are not able to prove they are capable of making the mortgage payments. Just because it is a non-QM mortgage loan does not necessarily mean high risk or subprime mortgage risk, and in many cases these non-QM mortgage loans require a high FICO score but simply do not check all the boxes associated with a QM loan. Non-QM loans for mortgages are protected by the lender against any type of lawsuit should the borrower become unable to afford the loan.

**Pass-Through Security** – Pool of fixed income securities backed by a package of assets. A servicing intermediary collects the monthly payments from issuers and, after deducting a fee, remits or passes them through to the holders of the pass-through security (that is, people or entities who have invested in it).

**Prime** – Classification of borrowers, rates or holdings in the lending market that are considered to be of high quality. This classification often refers to loans made to high-quality “prime” borrowers that are offered “prime” or relatively low interest rates.

**RCA Commercial Property Price Index (CPPI)** – This index describes various nonresidential property types for the U.S. (10 monthly series from 2000). It is a periodic same-property round-trip investment price-change index of the U.S. commercial investment property market. The dataset contains 20 monthly indicators.

**RCA U.S. All-Property Commercial Property Price Index (CPPI)** – This index is a component of the suite of price indexes that comprise the RCA CPPI.

**S&P CoreLogic Case-Shiller U.S. National Home Price SA Index** – This seasonally adjusted (SA) index tracks the value of single-family housing within the United States and is a composite of single-family price indexes for the nine Census Bureau divisions.

## Important Information Regarding This Material

Issue selection processes and tools illustrated throughout this presentation are samples and may be modified periodically. These are not the only tools used by the investment teams, are extremely sophisticated, may not always produce the intended results and are not intended for use by non-professionals.

DoubleLine has no obligation to provide revised assessments in the event of changed circumstances. While we have gathered this information from sources believed to be reliable, DoubleLine cannot guarantee the accuracy of the information provided. Securities discussed are not recommendations and are presented as examples of issue selection or portfolio management processes. They have been picked for comparison or illustration purposes only. No security presented within is either offered for sale or purchase. DoubleLine reserves the right to change its investment perspective and outlook without notice as market conditions dictate or as additional information becomes available. This material may include statements that constitute “forward-looking statements” under the U.S. securities laws. Forward-looking statements include, among other things, projections, estimates, and information about possible or future results related to a client’s account, or market or regulatory developments.

**Spread** – Difference between yields on differing debt instruments, calculated by deducting the yield of one instrument from another. The higher the yield spread, the greater the difference between the yields offered by each instrument. The spread can be measured between debt instruments of differing maturities, credit ratings or risk.

**Subprime** – Below-average credit classification of borrowers with a tarnished or limited credit history, and which are subject to higher than average interest rates. Subprime loans carry more credit risk and, as such, will carry higher interest rates.

**Summary of Economic Projections (SEP)** – Four times a year, the Federal Reserve releases a summary of Federal Open Market Committee (FOMC) participants’ projections for gross domestic product (GDP) growth, the unemployment rate, inflation and the appropriate policy interest rate. The summary also provides information regarding policymakers’ views on the uncertainty and risks attending the outlook. The projections provide information on the values that participants view as the most likely to prevail in the current year and the subsequent two years as well as over the longer run. The FOMC chair presents information about these projections in the press conference following the FOMC meeting for which they were prepared.

**Tenor** – Length of time remaining before a financial contract expires. It is sometimes used interchangeably with the term maturity, although the terms have distinct meanings. Tenor is used in relation to bank loans, insurance contracts and derivative products.

**Weighted Average Life (WAL)** – Average number of years for which each U.S. dollar of unpaid principal on a loan, mortgage or bond remains outstanding.

**Yield to Maturity (YTM)** – The total return anticipated on a bond if the bond is held until it matures. Yield to maturity is considered a long-term bond yield but is expressed as an annual rate.

You cannot invest directly in an index.

## Important Information Regarding Risk Factors

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