Securitized Products Outlook

Curating Positive Vibes for 2025

Phil Gioia, CFA | December 2024

Sector Summary

Bank on It

- The headwinds that plagued Agency mortgage-backed securities (MBS) in 2023 somewhat abated this year, although spread tightening remained subdued with elevated interest-rate volatility and weaker bank demand.
- We remain of the view that Agency MBS are attractive on a historical and relative value basis, and we expect excess returns versus U.S. Treasuries and investment grade (IG) corporate bonds next year, although the path might be bumpy in the near term.

Resilient Fundamentals Amid Potential Regional Slowdowns

- Residential credit performance was robust in 2024, driven by higher home prices, low defaults 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 non-Agency RMBS performance in 2025.

Calmer Seas on the Horizon

- Commercial real estate (CRE) was in the spotlight for much of 2024. However, we again caution against painting the CRE market with broad strokes and believe most CRE fundamentals ex office are poised to enter 2025 on stable footing.
- As the CRE market enters a cycle of normalization, opportunities have emerged for the non-Agency commercial MBS (CMBS) market to step in and strategically grow market share at attractive entry points.

Balancing Act: High-Income Strength vs. Low-Income Stress

- The asset-backed securities (ABS) market in 2024 was marked by record issuance levels and robust performance despite significant supply.
- Looking ahead to 2025, we believe the ABS market is poised to maintain its momentum, driven by stable issuance, robust demand, and attractive investment opportunities in traditional and emerging sectors.

Float On

- Collateralized loan obligations (CLOs) were one of the best-performing fixed-income asset classes this year, driven by high interest income from floating-rate coupons and spread compression from a generally resilient U.S. economy.
- Heading into 2025, we believe investment opportunities will lie in selective AAA-rated and mezzanine tranches. From a relative value perspective, CLOs remain an attractive alternative to similarly rated corporate bonds.

2024 Performance Through November 29, 2024

Fixed Income Index Performance | As of Nov. 29, 2024

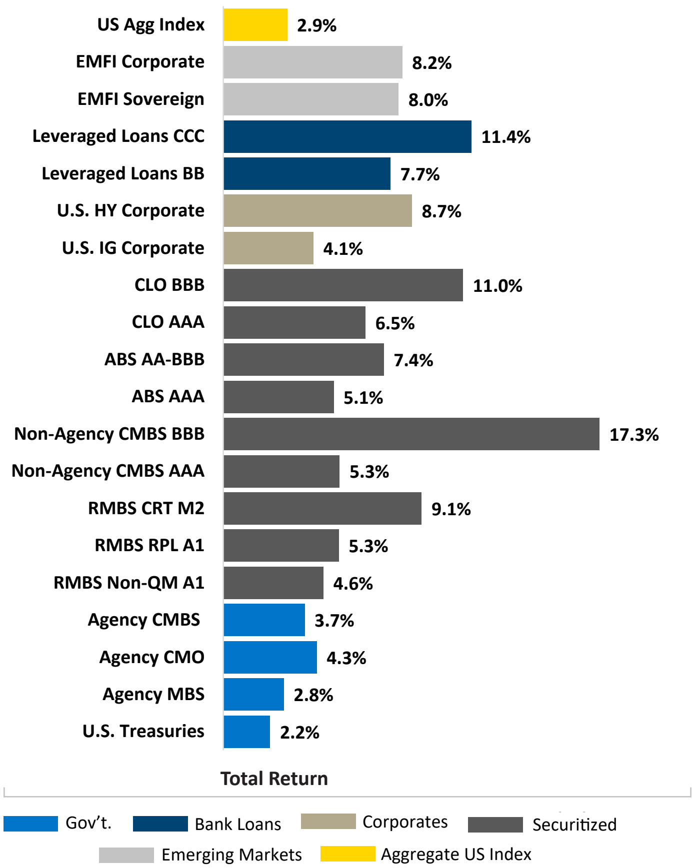

Figure 1
Source: DoubleLine, Bloomberg, BofA Global Research
Non-Qualified Mortgage (Non-QM), Re-Performing Loan (RPL), Credit Risk Transfer (CRT), Emerging Markets Fixed Income (EMFI). Indices used in this figure can be found under disclosures.

Securitized Fixed Income Yields | As of Nov. 29, 2024

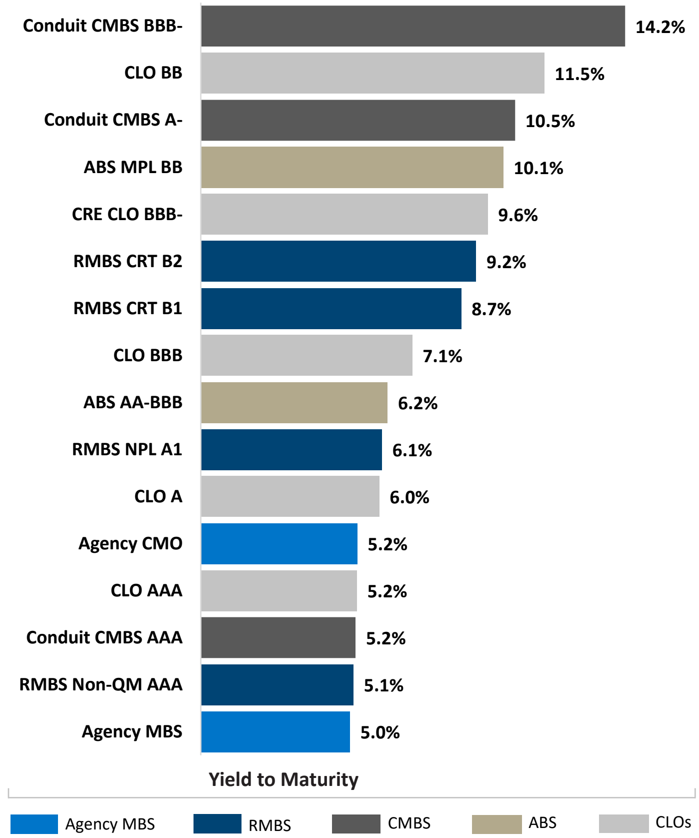

Figure 2
Source: DoubleLine, Bloomberg, BofA Global Research
Non-Qualified Mortgage (Non-QM), Credit Risk Transfer (CRT), Marketplace Lending (MPL). Indices used in this figure can be found under disclosures.

Fixed Income Spreads

	US Agg Index	Agency MBS	U.S. IG Corp.	U.S. 1-3 Yr Corp.	CMBS AAA	RMBS AAA	CLO AAA	U.S. HY Corp.	EMFI Corp.	EMFI Sov.	Bank Loans	ABS AA-BBB	CMBS BBB	CLO BBB
Current	32	138	77	44	99	120	110	266	250	336	481	206	749	308
Average	*46*	*107*	*121*	*68*	*101*	*131*	*144*	*416*	*338*	*375*	*502*	*253*	*509*	*415*
YTD Change	*-9*	*-1*	*-21*	*-23*	*-47*	*-30*	*-43*	*-57*	*-62*	*-48*	*-65*	*-75*	*-373*	*-103*
Percentile Rank	2	81	0	12	50	37	8	0	1	29	44	32	78	10

Figure 3
Source: DoubleLine, Bloomberg, Wells Fargo
Data from November 29, 2014 through November 29, 2024. Investment Grade (IG), High Yield (HY), Emerging Markets Fixed Income (EMFI). Indices used in this figure can be found under disclosures. You cannot invest directly in an index.

Agency Mortgage-Backed Securities

Bank on It

The headwinds that plagued Agency MBS in 2023 somewhat abated this year, although spread tightening remained subdued with elevated interest-rate volatility and weaker bank demand. As we head into 2025, our base case is that deregulation, a potentially slowing economy and a declining interest-rate environment should support bank demand for Agency MBS. Although banks have added roughly $30 billion so far in 2024, we expect demand to potentially double next year. *(Figure 4)* Further, with an expected gradual Federal Reserve approach to cutting interest rates, Agency MBS are likely to benefit from reduced interest-rate volatility and a clearer economic and political picture.

Apart from banks, we see the potential for money managers and other relative value buyers to continue to allocate to Agency mortgages given current valuations. *(Figure 5)* In a year when most spread products tightened considerably, Agency MBS remained one of the few areas of fixed income that traded cheap relative to history. Given this, we expect Agency MBS to deliver excess returns versus Treasuries and IG corporate bonds next year, although the path might be bumpy in the near term as uncertainty surrounding policy implementation might initially drive volatility. But that dynamic could stabilize as Cabinet picks become clearer, creating opportunities across pass-throughs and collateralized mortgage obligations (CMOs).

Looking at the technical picture, we expect overall supply to be in line with 2024 levels, with slightly over $1 trillion gross and slightly north of $200 billion net. Higher mortgage rates are expected to suppress refinancing (refi) activity and overall issuance. Regulatory changes, including government-sponsored enterprise reform and increased capital requirements, might constrain origination volume. We view the restrained-supply outlook as a net positive, particularly given our expectations of improving demand from banks, overseas investors and money managers.

In general, we believe there are several opportunities across the coupon stack for attractive risk-adjusted returns. Lower coupons could outperform if interest rates rally, but valuations remain more attractive in higher coupons, which might provide higher total returns across various rate scenarios due to better carry. We also see attractive opportunities in Agency CMOs, as it's possible to source lower-dollar-priced securities with positive convexity that can be broadly used to help manage duration.

While our views for next year are largely positive, potential risks are policy uncertainty, both from the Trump administration and subsequent Fed policy; higher-than-expected interest rates and rate volatility; and technicals impacted by potential supply-demand imbalances should bank demand not materialize.

Historical Bank Holdings | As of Sept. 30, 2024

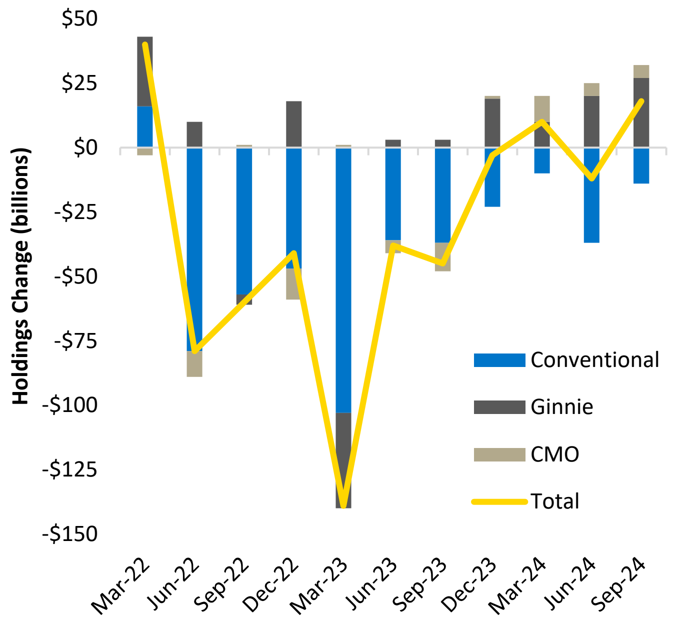

Figure 4
Source: DoubleLine, SNL, BofA Global Research. Ginnie Mae (Ginnie).

Agency MBS vs. Corporate Bond Spreads | As of Dec. 3, 2024

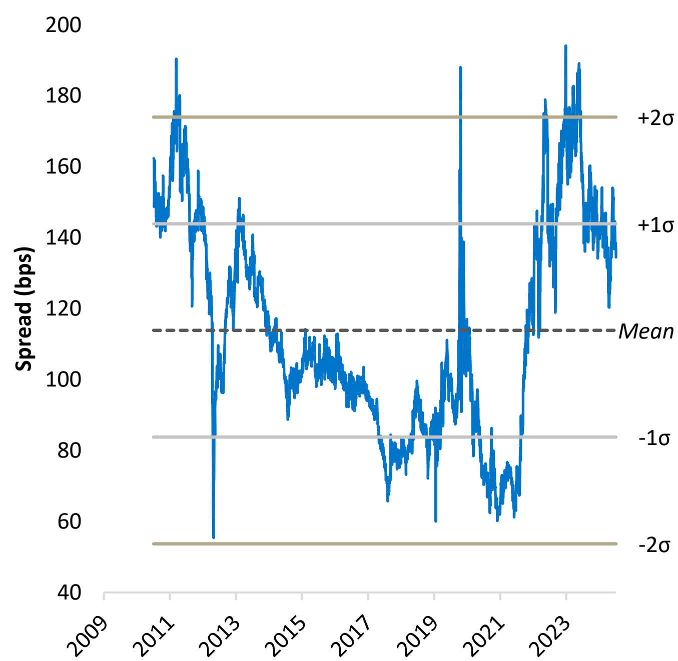

Figure 5
Source: DoubleLine, Bloomberg
Standard Deviation (σ)

Non-Agency Residential Mortgage-Backed Securities

Resilient Fundamentals Amid Potential Regional Slowdowns

The non-Agency RMBS market will likely enter 2025 with a mix of opportunities and challenges. While moderately attractive spreads and high all-in yields may provide attractive entry points, investors must navigate headwinds such as elevated interest rates, regional housing disparities and credit-specific risks. Strategic allocation to sectors offering stability, alongside careful monitoring of delinquency and regulatory developments, will be crucial for optimizing returns.

Residential credit performance was robust in 2024, driven by higher home prices, low defaults and strong demand for non-Agency RMBS new issuance. We expect performance to largely remain resilient in 2025 as home prices continue to be supported by strong demand from increased household formation and low housing supply driven by the lock-in effect, with approximately 75% of existing homeowners having mortgage rates of 4% or lower.[1] *(Figure 6)* That said, we expect home price appreciation to moderate from 2024 levels, driven by elevated mortgage rates and increased inventory, particularly in Florida and Texas. We expect the Northeast and Midwest to be more resilient, with inventory levels 20% to 30% below pre-pandemic figures.[2]

Underlying fundamentals are poised to enter next year on mostly solid footing, with low delinquency rates driven tighter lending standards and record levels of homeowner equity. *(Figure 7)* While delinquencies might increase should unemployment rise, we expect that to impact recent vintage cohorts more than seasoned borrowers with substantial equity. Further, having tested the efficiency of servicing toolkits during the pandemic, we expect modification, as opposed to default, will continue to be the favored resolution process for borrowers facing financial hardships.

Through the end of November, non-Agency RMBS gross issuance was $124 billion, outpacing the 2023 full-year total by $54 billion.[3] We anticipate a modest increase in 2025 issuance and believe this will be readily absorbed by the market. As such, we expect technicals will remain positive for residential mortgage credit next year.

Absent a significant change in economic conditions next year, we believe the market landscape will continue to be supportive of residential credit performance. In general, we believe there are opportunities for strong total return potential across the non-Agency RMBS capital structure, as many subsectors look attractive from a relative value perspective compared to similarly rated corporate bonds. Risks to our forecast include regional weakness, affordability challenges, natural disasters and climate risk, and broader macroeconomic volatility.

Supply vs. Prices | As of Oct. 31, 2024

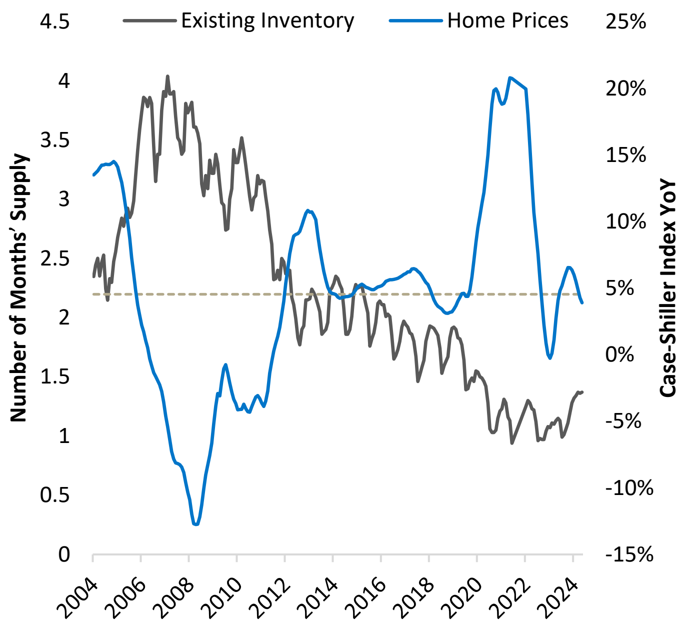

Figure 6
Source: DoubleLine, National Association of Realtors, S&P CoreLogic Case-Shiller U.S. National Home Price SA Index. Dashed line represents the average number of months' supply.

Deliquencies and Lending Standards | As of Sept. 30, 2024

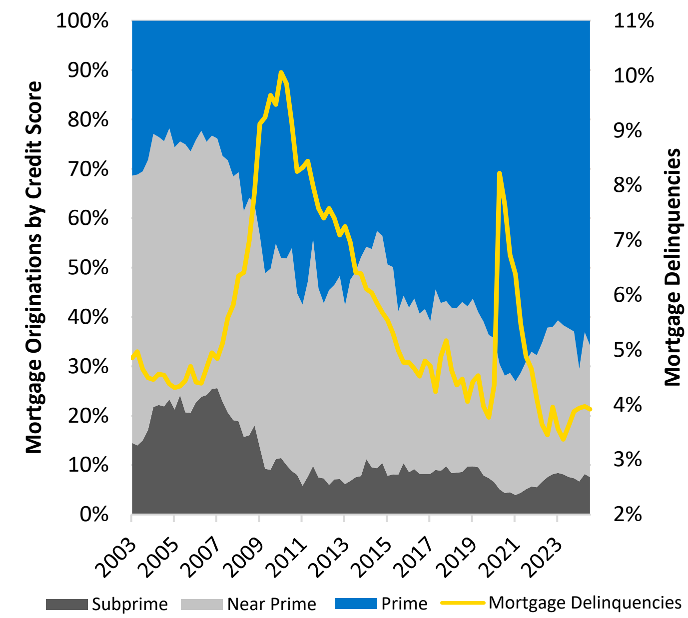

Figure 7
Source: DoubleLine, New York Federal Bank of Reserve.
Credit scores <659 = subprime; 660-759 = near prime; >760 = prime

Non-Agency Commercial Mortgage-Backed Securities

Calmer Seas on the Horizon

CRE remained in the spotlight for much of 2024, however, as we have previously stated, we caution against painting the CRE market with broad strokes and believe most CRE property level fundamentals ex office are poised to enter 2025 on stable footing. (*see: Capitalizing on the Comeback*) We believe the non-Agency CMBS market in 2025 will offer attractive investment opportunities but will require careful navigation of property-specific challenges, maturity risks, and macroeconomic uncertainties. We advocate for a focus on high-quality, newly issued bonds and property types with resilient fundamentals for strong risk-adjusted returns.

Fed rate policies remain a central factor with stability in interest rates needed to drive increased transaction activity and a continued recovery in property values. Reduced property valuations and increased debt service costs are likely to continue to push delinquencies higher next year, although the issues should largely be concentrated in maturing loans, floating-rate loans and loans secured with lower-quality office collateral.

However, we expect lenders and servicers will continue to employ modifications and extensions – practices expected to result in higher recoveries than near-term foreclosures and liquidations. Borrowers with cash-flowing assets that are willing to put more equity in are likely to receive extensions. The resolution of loans secured by less competitive, commodity office properties is likely to play out over several years.

Our base case is that CRE lending will increase as property prices reach a bottom, transaction activity will improve, and underwriting standards will gradually loosen, which should give investors a better feel for valuations. *(Figure 8)*

As the CRE market enters a cycle of normalization, opportunities have emerged for non-bank lenders to step in and strategically grow market share at attractive entry points. Non-Agency CMBS increased its share of the lending market as banks pulled back, which should be largely sustained in 2025. We expect non-Agency CMBS issuance to increase further next year, driven by optimism about the economy and the bottoming of CRE prices. *(Figure 9)*

We expect non-Agency CMBS spreads to narrow further in early 2025 and the credit curve to flatten. However, spread dispersion will likely remain high, reflecting the ongoing bifurcation between quality and distressed assets. While we remain constructive on the non-Agency CMBS market next year, challenges related to legacy loans, refinancing risks, and credit quality are likely to persist.

Lending and Transactions | As of Sept. 30, 2024

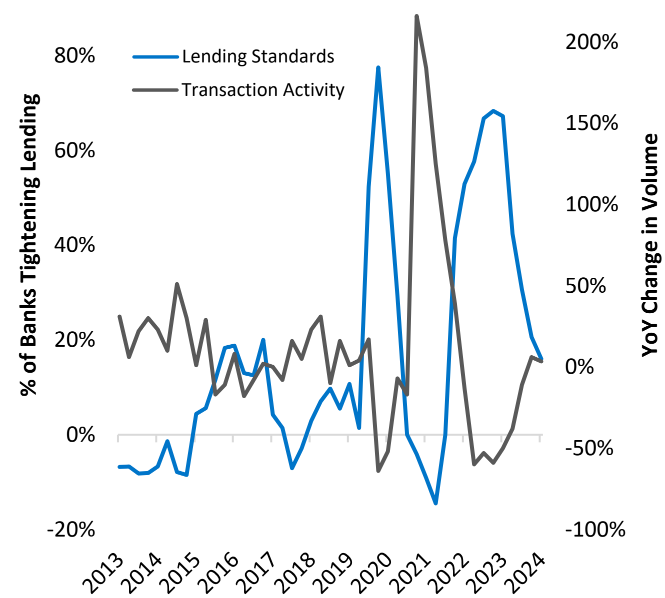

Figure 8
Source: DoubleLine, Real Capital Analytics

Private-Label CMBS Annual Issuance | As of Nov. 30, 2024

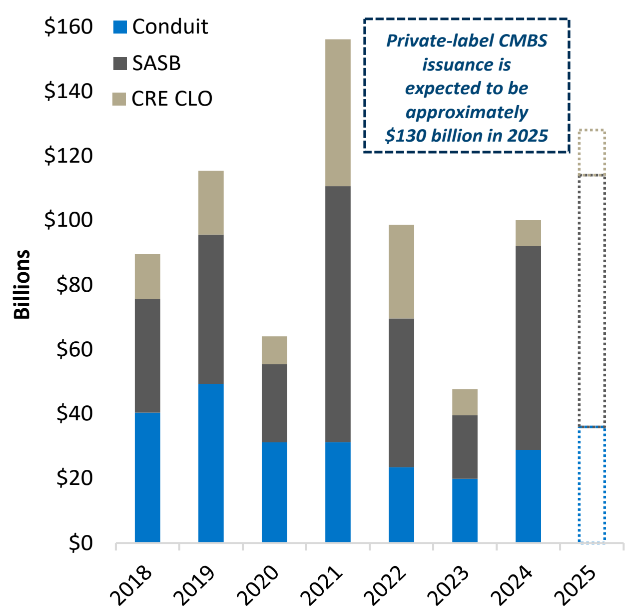

Figure 9
Source: DoubleLine, BofA Global Research. Private-label CMBS expected issuance based on average forecasts of Morgan Stanley, J.P. Morgan and BofA Global Research. Single Asset, Single Borrower (SASB)

Asset-Backed Securities

Balancing Act: High-Income Strength vs. Low-Income Stress

The ABS market in 2024 was marked by record issuance levels and robust performance despite significant supply. Looking ahead to 2025, we believe the ABS market is poised to maintain its momentum, driven by stable issuance, robust demand, and attractive investment opportunities in traditional and emerging sectors. While challenges persist, such as rising delinquencies and macroeconomic uncertainties, the combination of strong consumer fundamentals, supportive regulatory trends and evolving product innovations underscores the market's resilience. We advise investors to balance risk and reward, leveraging opportunities across short-duration consumer ABS and longer-duration esoteric ABS for optimal returns.

Underlying consumer fundamentals are generally strong, although we expect more bifurcated outcomes next year. On the plus side, labor income growth and revisions to the household savings rate point to a strong consumer base, with discretionary spending remaining robust through 2024 and expected to continue in 2025. However, discretionary spending has grown increasingly concentrated among higher-income households, while lower-income households have faced greater stress. Looking ahead, real wage growth is expected to remain positive and the labor market is to remain strong, which should support overall consumer spending.

A trend to watch will be delinquencies, particularly in auto ABS. Prime delinquencies are at decade-plus highs, while subprime delinquencies have surpassed 2008 levels.[4] Although prime delinquencies for 2023 vintages remain elevated, they have not translated into significant increases in defaults or losses. *(See: An Update on the U.S. Consumer)*

Despite strong performance across ABS subsectors this year, we see opportunities in a variety of securitizations in 2025. (Figure 10) We believe short-duration consumer ABS at the top of the capital structure will continue to offer relative value compared to corporate bonds. In addition, data center ABS should present compelling opportunities for longer-duration exposure. (Figure 11) The subsector continues to benefit from the digital transformation and increasing demand for cloud storage and AI infrastructure. *(See: Securitizing the Digital Present & Future)*

Risks to our outlook include potential policy changes, such as tariffs and immigration restrictions, which could result in slower economic growth and higher inflation, pressuring consumer spending. An unexpected rise in unemployment could exacerbate delinquencies and force spreads wider, particularly in consumer ABS.

ABS Subsector Performance | As of Nov. 29, 2024

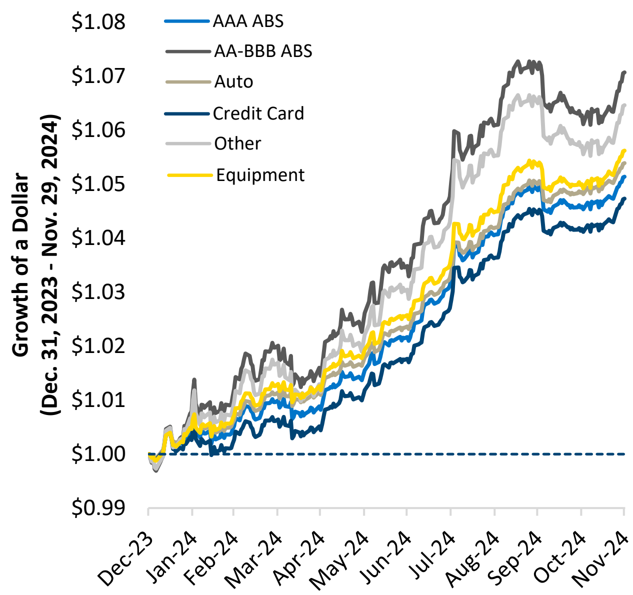

Figure 10
Source: DoubleLine, BofA Global Research

Data Center ABS Potential Market Size | As of Aug. 31, 2024

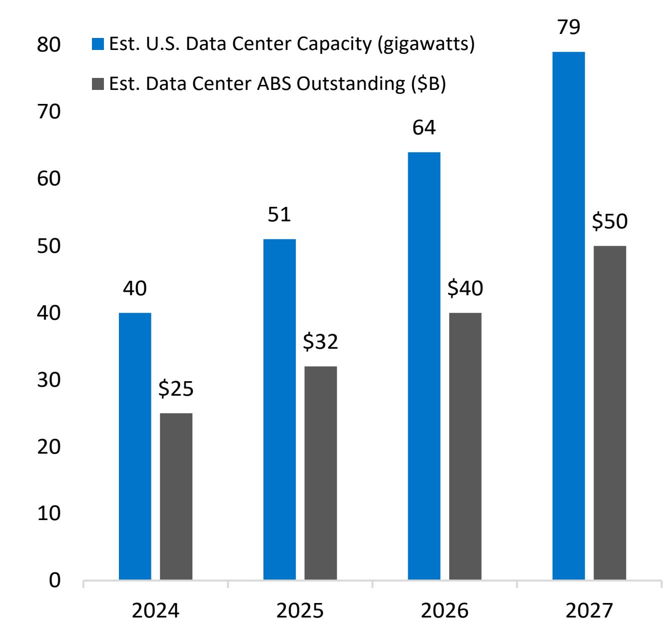

Figure 11
Source: DoubleLine, Morgan Stanley, Intex

Collateralized Loan Obligations

Float On

CLOs were one of the best-performing fixed-income asset classes this year, driven by high interest income from floating-rate coupons and spread compression from a generally resilient U.S. economy. We expect the U.S. CLO market to continue its momentum next year, driven by robust issuance and steady demand as CLOs remain a scalable floating-rate investment opportunity in a higher-for-longer interest-rate environment. That said, there might be bouts of volatility in the near term as the market digests the impact of broader macro concerns and government policy.

2024 marked a record-breaking year for CLO issuance and refinancing, with gross issuance exceeding $184 billion, and refi/reset activity reaching $240 billion.[5] *(Figure 12)* For 2025, forecasts are for another strong year with north of $200 billion in gross issuance and approximately $100 billion in net issuance. We believe this issuance will be met with strong demand for floating-rate assets and expanding CLO exchange-traded funds, which garnered $13 billion in inflows this year.[6]

Balance sheets for most U.S. leveraged loan issuers will enter 2025 in a generally healthy position. Loan default rates peaked at 5.6% in 2024 but are expected to decline to 2.3% in 2025 and downgrades have largely been concentrated in lower-rated loans. Despite interest rate cuts potentially impacting CLO debt total returns, the start of the cutting cycle should be beneficial for leveraged loan fundamentals and, in turn, CLO fundamentals.

This year, we favored senior-rated CLOs for relative value and price stability, and CLOs rated BB for carry and convexity. Heading into 2025, we believe investment opportunities lie in selective AAA and mezzanine tranches. From a relative value perspective, CLOs remain an attractive alternative to similarly rated corporate bonds. *(Figures 13 and 14)*

Regulatory adjustments for the banking industry, including Basel III finalization, could reduce risk-weighted asset requirements for CLOs rated AAA, encouraging more institutional investment. However, uncertainties around economic policy, tariffs and the pace of interest rate cuts could affect spreads and issuance. Despite some risks, we believe the CLO market remains resilient with strong historical performance and largely favorable macro conditions.

U.S. CLO Issuance | As of Nov. 29, 2024

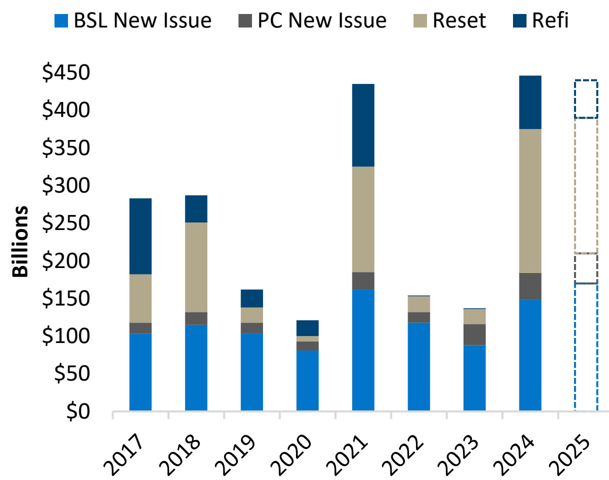

Figure 12
Source: DoubleLine, Citi
Broadly Syndicated Loan (BSL); Private Credit (PC)

CLO AAA vs. U.S. Investment Grade Corp. | As of Nov. 29, 2024

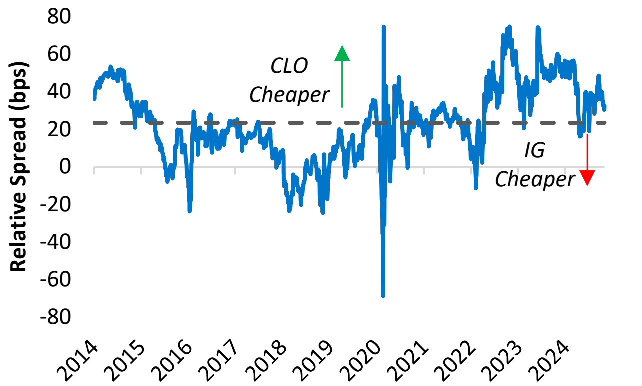

Figure 13
Source: DoubleLine, Bloomberg

CLO BBB vs. U.S. High Yield Corp. | As of Nov. 29, 2024

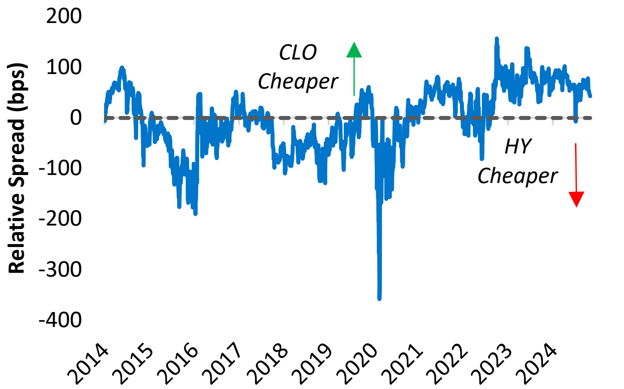

Figure 14
Source: DoubleLine, Bloomberg

Phil Gioia, CFA
Client Portfolio Manager

Mr. Gioia joined DoubleLine in 2018 and serves as a Client Portfolio Manager. In this capacity, he is responsible for communicating DoubleLine's macroeconomic views and portfolio positioning via client engagement, published market commentary and dedicated strategy content, with a focus on DoubleLine's Securitized Product strategies. 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 he earned a certification for the Applied Data Science Program from the Massachusetts Institute of Technology. Mr. Gioia is a CFA® charterholder and holds the FINRA Series 7 and 63 licenses.

Endnotes

[1] Citi Research

[2] Morgan Stanley Research

[3] BofA Global Research

[4] Morgan Stanley

[5] Citi Research

[6] BofA Global Research

Index Definitions and Terms

Indices used in Figure 1:
U.S. Treasuries: Bloomberg US Treasury Index; **Agency MBS:** Bloomberg US MBS Index; **Agency CMO:** ICE BofA U.S. Agency CMO Index; **Agency CMBS:** Bloomberg US Agency CMBS Index; **RMBS:** Citi Research; **Non-Agency CMBS:** Bloomberg US Non-Agency CMBS Index; **ABS AAA:** Bloomberg US ABS Index; **ABS AA-BBB:** ICE BofA U.S. Fixed-Rate Miscellaneous ABS Index; **CLOs:** J.P. Morgan CLO Index; **U.S. IG Corporate:** Bloomberg US Corporate Index; **U.S. HY Corporate:** Bloomberg US Corporate HY Index; **Leveraged Loans:** Credit Suisse Liquid Leveraged Loan Index; **EMFI Sovereign:** J.P. Morgan EMBI Global Diversified; **EMFI Corporate:** J.P. Morgan CEMBI Broad Diversified; **US Agg Index:** Bloomberg US Aggregate Bond Index

Indices used in Figure 2:
Agency MBS: Bloomberg US MBS Index; **Agency CMO:** ICE BofA U.S. Agency CMO Index; **RMBS Non-QM:** Wells Fargo Research; **Conduit CMBS:** ICE BofA U.S. Fixed-Rate CMBS Index; **CLOs:** J.P. Morgan CLO Index; **ABS AA-BBB:** ICE BofA U.S. Fixed-Rate Miscellaneous ABS Index; **ABS MPL:** ACHV 2023-4CP ; **RMBS NPL A1:** BofA Research; **RMBS CRT:** BofA Global Research; **CRE CLO BBB-:** BofA Global Research

Indices used in Figure 3:
US Agg Index: Bloomberg US Aggregate Bond Index; **Agency MBS:** 30-Year FNCL Par Coupon Index; **IG Corporate:** Bloomberg US Corporate Index; **U.S. 1-3 Yr Corp.:** Bloomberg US Corporate Index; **CMBS:** Bloomberg US Non-Agency CMBS Index; **RMBS (Non-QM) AAA:** Wells Fargo; **CLOs:** J.P. Morgan; **HY Corporate:** Bloomberg US Corporate High Yield Index; **EMFI Corp.:** J.P. Morgan CEMBI Broad Diversified; **EMFI Sov.:** J.P. Morgan EMBI Global Diversified; **Bank Loans:** Credit Suisse Liquid Leveraged Loan Index; **ABS AA-BBB:** ICE BofA U.S. Fixed-Rate Miscellaneous ABS Index

Agency – Mortgage securities whose principal and interest are guaranteed by a U.S. government agency such as Fannie Mae (FNMA) or Freddie Mac (FHLMC).

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.

Basel III or Basel III Endgame – A set of changes to international banking standards that aim to make the banking system more resilient by increasing the capital available to absorb losses. Basel III Endgame is scheduled to take effect on July 1, 2025, with a three-year phase-in period ending on June 30, 2028.

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 Agency Commercial Mortgage-Backed Securities (CMBS) Index – This index measures the U.S. market of Agency conduit and fusion CMBS deals.

Bloomberg US Aggregate Bond Index – This index (the "Agg") represents securities that are SEC registered, taxable and U.S. dollar denominated. It covers the U.S. investment grade, fixed-rate bond market, with components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Bloomberg US Asset-Backed Securities (ABS) Index – This index is the ABS component of the Bloomberg US Aggregate Bond Index, a flagship measure of the U.S. investment grade, fixed-rate bond market. The ABS index has three subsectors: credit and credit cards, autos and utility.

Bloomberg US Corporate High Yield (HY) Index – This index measures the U.S. dollar-denominated, HY, fixed-rate corporate bond market. Securities are classified as HY if the respective middle ratings of Moody's, Fitch and S&P are Ba1, BB+ or BB+ or below. The Bloomberg US HY Long Bond Index, including bonds with maturities of 10 years or greater, and the Bloomberg US HY Intermediate Bond Index, including bonds with maturities of 1 to 9.999 years, are subindices of the Bloomberg US Corporate HY Bond Index.

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

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 Non-Agency Commercial Mortgage-Backed Securities (CMBS) Index – This index measures the market of non-Agency conduit and fusion CMBS deals with a minimum current deal size of $300 million.

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.

Conduit Loans – Type of loans, also known as commercial mortgage-backed securities (CMBS) loans, that are commercial real estate loans pooled together with similar commercial mortgages and sold on the secondary market. On the secondary market, conduit loans are divided into tranches based on risk, return and loan maturity.

Credit Quality – Determined from the highest available credit rating from any nationally recognized statistical rating organization (NRSRO, generally S&P, Moody's or Fitch). DoubleLine chooses to display credit ratings using S&P's rating convention, although the rating might be sourced from another NRSRO. The rating organization evaluates a bond issuer's financial strength, meaning its ability to pay a bond's principal and interest in a timely fashion. Ratings are expressed as letters ranging from "AAA," the highest grade, to "D," the lowest grade. In situations where the rating organization has not issued a formal rating on a security, the security will be classified as "nonrated."

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.

Credit Suisse Liquid Leveraged Loan Index (LELI) – This index is a subindex of the Credit Suisse Leveraged Loan Index, which, with over 1,664 fully funded term loan facilities as of December 2018, is designed to mirror the investable universe of the U.S. dollar-denominated leveraged loan market. LELI contains about 284 term loan facilities as of December 2018 and seeks to track the liquid segment of the loan market. LELI includes only large loan facilities, over $1 billion in face value, in order to sample loans that are actively traded in the secondary market.

Dot Plot – Simple statistical chart that consists of data points plotted as dots on a graph with x- and y-axes. Dot plots are well known as the method that the Federal Reserve uses to convey its benchmark federal funds rate outlook at certain Federal Open Market Committee (FOMC) meetings.

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.

Federal Open Market Committee (FOMC) – Branch of the Federal Reserve System that determines the direction of monetary policy specifically by directing open market operations. The FOMC comprises the seven board governors and five (out of 12) Federal Reserve Bank presidents.

Freddie Mac Primary Mortgage Market Survey (PMMS) – This weekly national survey tracks the most-popular 30- and 15-year fixed-rate mortgages, and 5-1 hybrid amortizing adjustable-rate mortgage products among a mix of lender types. The survey is compiled Monday through Wednesday and released (as average rates and points) on Thursday.

High Yield (HY) – Bonds that pay higher interest rates because they have lower credit ratings than investment grade (IG) bonds. HY bonds are more likely to default, so they must pay a higher yield than IG bonds to compensate investors.

ICE BofA U.S. Agency Collateralized Mortgage Obligation (CMO) Index – This index tracks the performance of U.S. dollar-denominated, fixed-rate Agency CMOs publicly issued in the U.S. domestic market. Qualifying securities must have at least one year remaining to final maturity, a fixed coupon schedule, an original deal size for the collateral group of at least $250 million and a current outstanding deal size for the collateral group that is greater than or equal to 10% of the original deal size.

ICE BofA U.S. Fixed-Rate Commercial Mortgage-Backed Securities (CMBS) Index – This index tracks the performance of U.S. dollar-denominated, investment grade (IG), fixed-rate commercial mortgage-backed securities (CMBS) publicly issued in the U.S. domestic market. Qualifying securities must have an IG rating (based on an average of Moody's, S&P and Fitch), a fixed coupon schedule, at least one year remaining to final maturity and at least one month to last expected cash flow.

ICE BofA U.S. Fixed-Rate Miscellaneous Asset-Backed Securities (ABS) Index – This index tracks the subset of the ICE BofA U.S. Fixed-Rate ABS Index rated AA to BBB and includes all ABS collateralized by anything other than auto loans, home equity loans, manufactured housing, credit card receivables and utility assets.

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.

J.P. Morgan Collateralized Loan Obligation Index (CLOIE) – This market value-weighted index comprises U.S. dollar-denominated collateralized loan obligations (CLOs).

J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI BD) – This index is a uniquely weighted version of the CEMBI, which is a market capitalization-weighted index consisting of U.S. dollar-denominated emerging markets corporate bonds. The CEMBI BD limits the weights of index countries with larger debt stocks by only including specified portions of those countries' eligible current face amounts of debt outstanding.

J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI GD) – This index is a uniquely weighted version of the EMBI. The EMBI tracks bonds from emerging markets (EM), and comprises sovereign debt and EM corporate bonds. The EMBI GD limits the weights of index countries with larger debt stocks by only including specified portions of those countries' eligible current face amounts of debt outstanding.

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.

Mortgage Bankers Association (MBA) Weekly Applications Survey – Covers over 75 percent of all U.S. retail residential mortgage applications and has been conducted weekly since 1990. Respondents include mortgage bankers, commercial banks and thrifts. Base period and value for all indexes is March 16, 1990 = 100.

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.

Par – Short for "par value," par can refer to bonds, preferred stock, common stock or currencies, with different meanings depending on the context. Par most commonly refers to bonds, in which case, it means the face value, or value at which the bond will be redeemed at maturity.

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 indices that comprise the RCA CPPI.

Re-Performing Loan (RPL) – A mortgage that became delinquent because the borrower was behind on payments by at least 90 days, but it is "performing" again because the borrower has resumed making payments.

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

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.

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.

30-Year FNCL Par Coupon Index – This index tracks the par coupons paid on 30-year Fannie Mae mortgages.

U.S. Existing-Home Sales Index – This index, published by the National Association of Realtors, reflects the total unit sales of homes that are already built in the United States. This is a lagging indicator tracking the U.S. housing market, which is impacted by a change in mortgage rates.

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.

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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.

Yield to maturity (YTM) does not represent return. YTM provides a summary measurement of an investment's cash flows, including principal received at maturity based on a given price. Actual yields may fluctuate due to a number of factors such as the holding period, changes in reinvestment rates as cash flows are received and redeployed, receipt of timely income and principal payments. DoubleLine views YTM as a characteristic of a portfolio of holdings often used, along with other risk measures such as duration and spread, to determine the relative attractiveness of an investment.

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