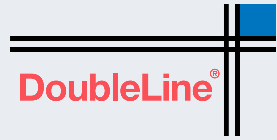
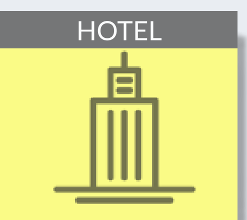


Commercial Real Estate (CRE) Fundamentals Update and Implications for CRE Mortgages

Morris Chen, Chris Fagan, CFA & Phil Gioia, CFA | May 2023



Key Takeaways

- DoubleLine's Commercial Mortgage-Backed Securities and Commercial Real Estate Debt team see near- to medium-term challenges driven by higher interest rates, tighter lending conditions and a potential economic slowdown.
- However, we would caution investors against painting the CRE debt market with a broad brush as outcomes will vary greatly across property types, geographic locations and loan vintages.
- In contrast to the excesses leading into the Global Financial Crisis (GFC) and resulting repricing in the crisis, the CRE market over the past decade has experienced steady price appreciation amid conservative lending.
- To the extent fundamentals suffer deterioration, we believe the brunt of the impact to fall on equity owners as opposed to debt holders.
- Through active management and targeted credit selection, we see unique investment opportunities in higher-rated, investment grade CMBS as well as newly originated private mortgage loans.

Amid Further Headwinds, Opportunities in High-Grade CRE Loans and Commercial Mortgage-Backed Securities (CMBS)

The U.S. commercial real estate (CRE) market has experienced a period of rapid change since the onset of the pandemic lockdowns in early 2020. A freezing of investment activity during 2020 was followed by a rapid recovery in 2021 resulting from unprecedented government stimulus and a reopening of the economy in the wake of mass implementation of vaccines. Pandemic-led disruptions still linger and have changed the way Americans work and shop as well as their housing preferences, shifting the fundamental outlook for some property types. In response to stimulus and supply chain-induced inflation, the Federal Reserve, with a resolute if belated focus to fight inflation, has increased short-term borrowing rates by raising the federal funds rate (FFR) by 500 basis points (bps) since March 2022. As a result, the CRE market now faces the dual headwinds of higher borrowing costs and a looming economic slowdown. That combination is expected to lead to a significant increase in the cost of capital for commercial real estate, declining valuations and a deterioration of property level fundamentals. DoubleLine's Commercial Mortgage-Backed Securities and Commercial Real Estate Debt team see near- to medium-term challenges driven by tighter lending conditions in conjunction with a pullback in lending from regional banks. While the authors don't believe regional banks will halt lending altogether, we do expect borrowing costs to increase as availability of capital lessens. However, we would caution investors against painting the CRE debt market with a broad brush as outcomes will vary greatly across property types, geographic locations and loan vintages.

Within the commercial mortgage-backed securities (CMBS) market, bonds have repriced meaningfully this year, reflecting these headwinds. Repricing was initially led by negative headlines and uncertainty surrounding interest rates and then exacerbated by concerns over regional bank risk. However, we believe the tightening of lending standards and pullback now underway in bank origination volume presents an opportunity for private credit to gain direct commercial mortgage loan origination market share at attractive leverage and pricing points. Through active management and targeted credit selection, we see unique investment opportunities in higher-rated, investment grade CMBS as well as newly originated private mortgage loans.

Property Types: Healthy Fundamentals and Pricing Differentials Masked by Office Distress

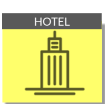
Outside the unique convergence of cyclical and secular headwinds confronting parts of the office market, CRE fundamentals in general remain healthy.

Property Type Outlook:

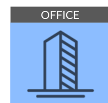
Multifamily: (+) While pockets of concentrated new and pending supply are pressuring rents and vacancy rates in the short term in certain local markets, multifamily on a national basis continues to benefit from a positive long-term supply-demand imbalance driven by aggregate undersupply of housing combined with poor single-family home affordability.

Industrial: (+) Demand remains robust driven by the continued growth in e-commerce consumption and next-day-delivery services combined with increased onshoring and duplication/expansion of supply-chain logistics networks.

Retail: (=) Fundamentals have proved to be far more resilient than expected after emerging from lockdowns. Scant new supply since the Global Financial Crisis (GFC) has led to the highest rent and lowest vacancy levels in decades as many retailers leverage omnichannel strategies (combining physical stores and e-commerce). The exception is class B and C regional malls, which continue their pre-pandemic decline and face unique challenges to their longer-term viability.

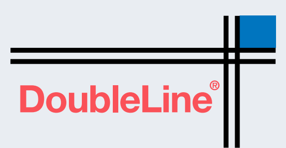


Hotel: (=) Fundamentals rebounded rapidly following the reopening of the economy. While business- and convention-related travel has not yet fully recovered to pre-pandemic levels, growth in room rates has driven RevPAR back to 2019 levels. While occupancy levels should continue to recover, we remain cautious of the hospitality sector's sensitivity to a slowing economic environment engineered by Fed tightening.



Office: (–) The office sector faces unique, secular shifts in demand and structural oversupply. Leading up to the pandemic, elevated leasing activity driven by coworking businesses and rapidly expanding technology companies created artificial demand for office space. Post-pandemic, increased work-from-home and hybrid work arrangements have led to a decline in office demand despite strong employment. However, the impact of this decline in demand has not been uniform across the office market, with clear "winners" and "losers" emerging. The market has seen a significant flight to quality with buildings completed since 2010 experiencing continued positive net absorption while older, "commodity"-type office properties have felt the brunt of this decline in demand with some facing obsolescence. Owners of office properties are evaluating their portfolios to determine which assets to continue to support in this unique environment. We expect this process to play out over several years with the potential for a meaningful reset in property values.

In contrast to the excesses leading into the GFC and resulting repricing in the crisis, the CRE market over the past decade has experienced steady price appreciation amid conservative lending. Consequently, to the extent the above fundamentals suffer deterioration, we expect the brunt of the impact to fall on equity owners as opposed to debt holders.



Commercial Real Estate Valuations

The rise in interest rates has caused CRE transactions to slow dramatically and increased the cost of capital for investors. Interest rate volatility is particularly challenging for CRE investors who typically rely on debt financing. As financing costs rise, property valuations are negatively impacted. This began in 2022. The first half of the year extended 2021's record-breaking transaction volume and price growth. *(Figures 1 and 2)*

However, as interest rates continued their upward trend throughout 2022, transaction volumes and price growth decelerated, a sign of disconnect in the value of properties between buyers and sellers. While never a one-to-one relationship, higher interest rates lead to higher discount rates for the same projected cash flows and higher cost of capital, both of which necessitate lower CRE property prices holding targeted return constant. *(Figures 3 and 4)*

RCA CPPI U.S. National Indices | As of Jan. 31, 2023

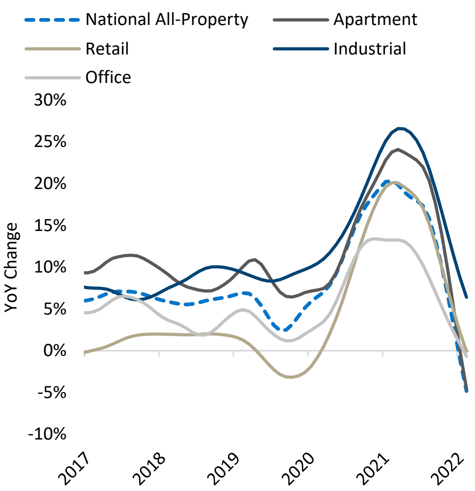


Figure 1
Source: DoubleLine, RCA. Year-over-Year (YoY)

Cap Rate Trends by Property Type | As of Jan. 31, 2023

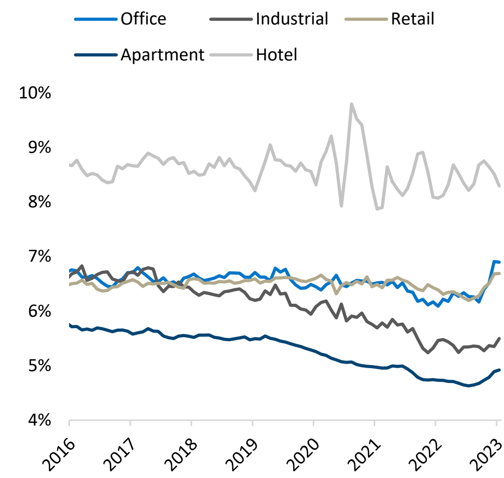


Figure 3
Source: DoubleLine, RCA. Year-over-Year (YoY)

Cumulative Deal Volume | As of Dec. 31, 2022

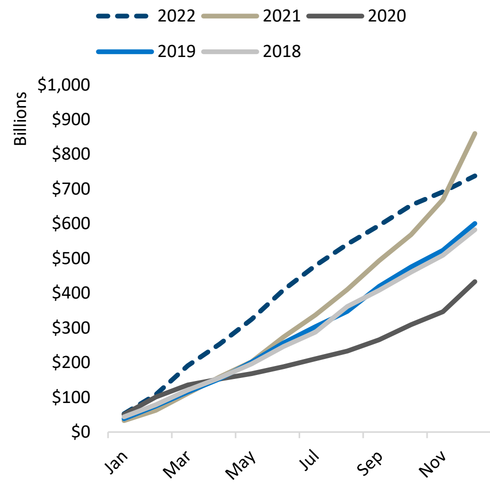


Figure 2
Source: DoubleLine, RCA

Mortgage Rates vs. 10-Year Tresury | As of Jan. 31, 2023

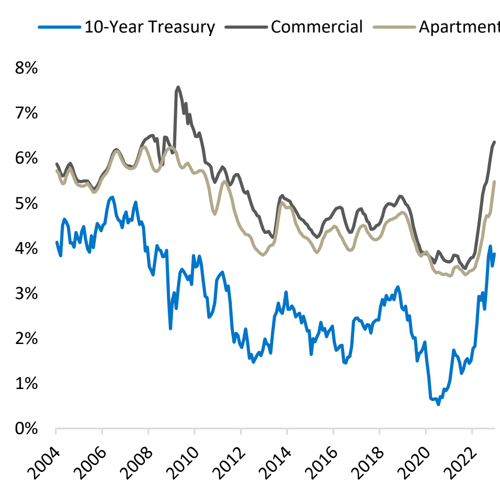
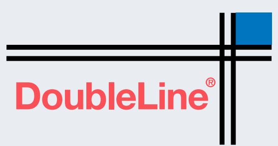


Figure 4
Source: DoubleLine, RCA



CRE Fundamentals Update & Implications for CRE Mortgages

May 2023

To give some context to the moves in interest rates and the impact to CRE borrowing costs, during 2022, the Fed increased the FFR by 425 bps, and the 10-year U.S. Treasury yield rose 225 bps. As a result, CRE mortgage rates increased 256 bps, resulting in borrowing costs exceeding 6%, the highest in 10 years. Given the time lag inherent in closing CRE transactions and the significant decline in transaction volume, we believe that private CRE prices as measured by RCA CPPI, a measure of national CRE property values, have yet to fully reflect the impact of the current rate environment. This is most evident when comparing the spread between cap rates, a shorthand measure of unlevered rate of return, and the 10-year Treasury yield. *(Figure 5)*

CRE Cap Rates and Price Growth | As of Dec. 31, 2022

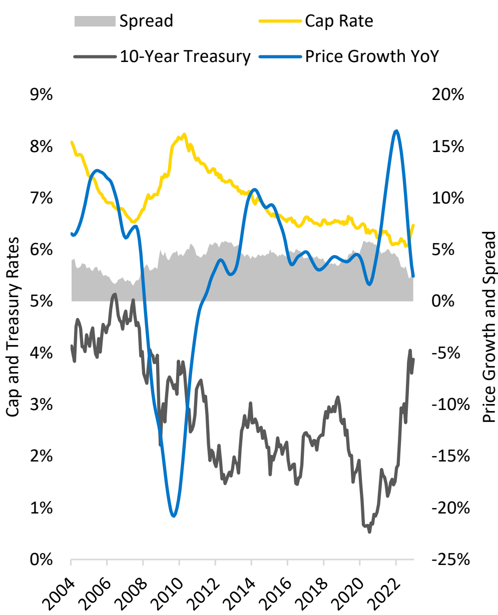


Figure 5
Source: DoubleLine, RCA

Absent a significant decline in CRE mortgage rates or increase in net operating income (NOI) growth rates from current levels, cap rates need to increase, implying lower private CRE prices. While commercial cap rates have widened 40 bps since August, we expect further widening, especially if interest rates remain elevated for a prolonged period. Historically, this revaluation process has first appeared in the form of rapidly declining transaction volume reflective of a growing gap between buyer and seller expectations, a development already underway.

Looking at CRE property prices, the RCA CPPI ended 2022 up 0.9% on a year-over-year (YoY) basis; however, that growth was largely front-loaded. The index turned negative in January 2023 and as of February declined 6.9% YoY. While the deceleration of the RCA CPPI YoY growth rate from its January peak throughout 2022 was largely driven by the increase in interest rates, CRE in 2023 faces the additional headwind of a potential broader economic slowdown. While uncertainty remains, the current economist consensus calls for a mild recession in 2023.[1] CRE is not immune to a broader economic slowdown, as NOI and GDP are historically highly correlated. *(Figure 6)*

GDP and NOI Growth | As of Dec. 31, 2022

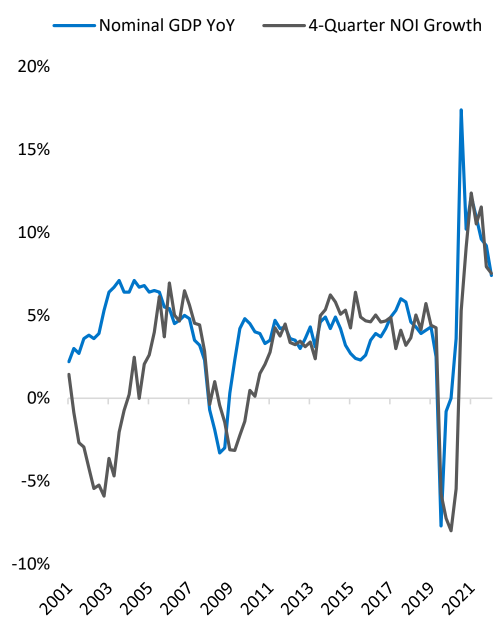


Figure 6
Source: DoubleLine, Haver, Morgan Stanley

That said, sensitivity to the macroeconomic environment varies across property types, and even within property types not all assets will be impacted uniformly. *(Figure 7)*

Historical Sensitivity to 1% GDP Change

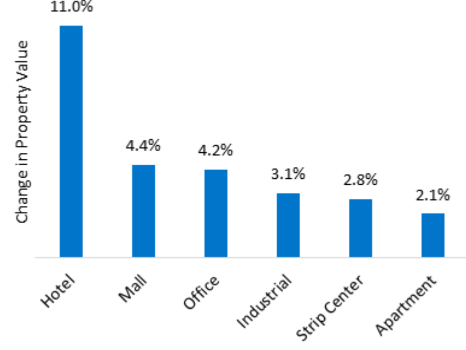


Figure 7
Source: DoubleLine, Green Street

What Does This Mean for CRE Mortgages in 2023?

As a result of the higher interest-rate environment and anticipated deceleration of NOI growth rates, we expect to see continued CRE price declines throughout 2023. It is our view that more clarity on the Fed's terminal fed funds rate will result in more clarity on interest rates and CRE borrowing costs. This will remove one source of uncertainty and likely result in an increase in transaction activity, which in turn should provide additional clarity for commercial property price changes. Until that occurs, it is difficult to estimate a precise level of price impact for CRE.

Research estimates project declines in a range of 14% to 27% in the aggregate, which can help bookend expectations.[2] We expect a further tightening of lending conditions, exacerbated by recent regional bank distress and potential increased banking regulation, leading to price declines at the wider end of this range. Again, it should be noted that declines will not be universal across, and even within, property types. For example, office prices are generally expected to decline 30% to 40% whereas multifamily and industrial are expected to be flat to down 20%.

While there is no doubt that the dual headwinds of higher interest rates and potential economic slowdown present challenges for the CRE market, we remain constructive on CRE mortgage risk based on several factors outlined below.

Moderate Leverage

As of year-end 2022, the historical average loan-to-value (LTV) for CRE loans secured by commercial property was 64% (67% for multifamily properties). *(Figure 8)*

This 30%-plus equity cushion is more than the most severe YoY drawdown of 22% in the history of the RCA CPPI. In addition, LTV ratios continue to decline in response to higher rates as debt-service coverage ratios (DSCRs) have constrained loan proceeds.

In addition to LTV, another metric used to evaluate CRE leverage is the debt yield, which is calculated by dividing NOI by the loan amount. Comparing cap rates to debt yields is an alternative way to evaluate equity cushion. The historical average debt yield for commercial properties is 10.8% compared to the average historical cap rate over the same period of 6.9%. *(Figure 9)* This delta between debt yield and cap rate would insulate lenders from potential impairment if NOI growth rates decelerate as expected.

CRE Loan-to-Value | As of Dec. 31, 2022

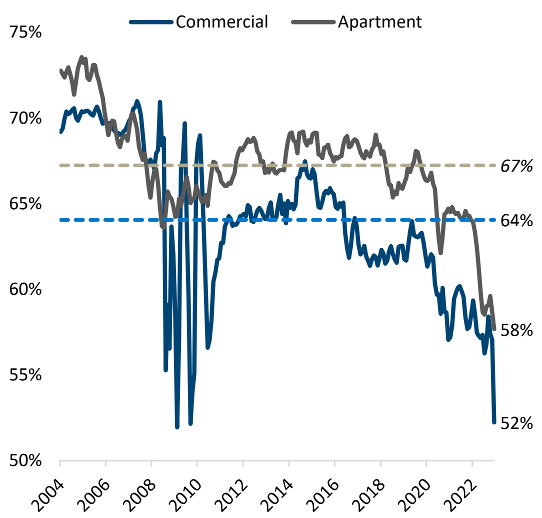


Figure 8
Source: DoubleLine, RCA. Dashed lines represent the average LTVs.

Commercial Cap Rate and Debt Yield | As of Dec. 31, 2022

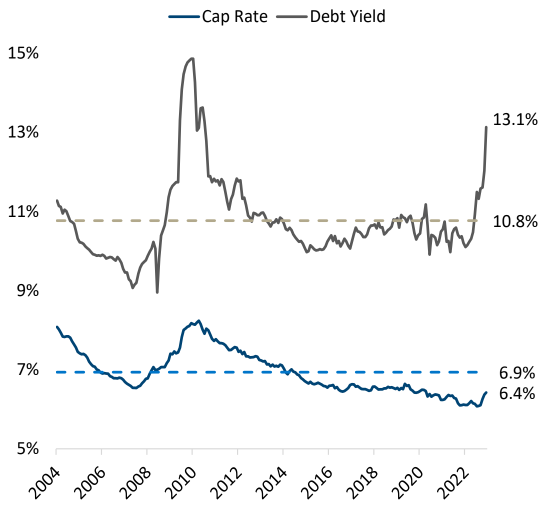
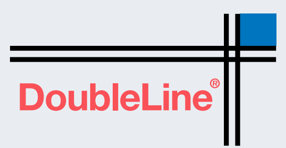


Figure 9
Source: DoubleLine, RCA. Dashed lines represent average cap rate and debt yield.



CRE Fundamentals Update & Implications for CRE Mortgages

May 2023

Measured New Supply

New supply following the GFC has been measured, as evidenced by an all-time tight overall vacancy rate as of year-end 2022 of 5.3%. *(Figure 10)*

Vacancies by Property Type | As of Dec. 31, 2022

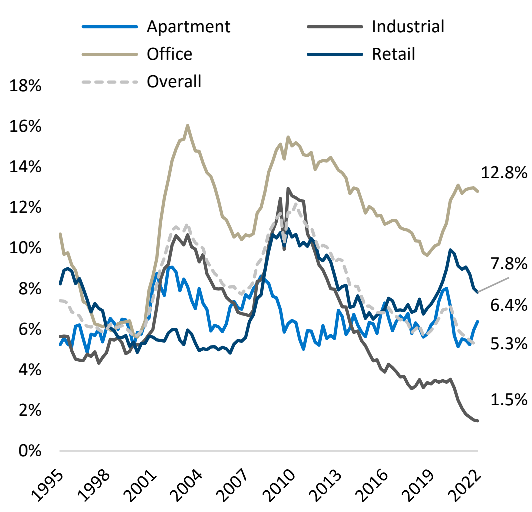


Figure 10
Source: DoubleLine, NCREIF, Morgan Stanley

Where projections of annual completions over the period 2023-2027 are elevated as a percentage of existing stock, they are concentrated in property types with the most favorable secular tailwinds, current vacancy rates and net absorption outlooks. *(Figure 11)* Across property types, expected completions are less than half the pace of the prior three years.

Annual Completions as % of Existing Stock
Estimated Annual Supply Growth 2023-2027

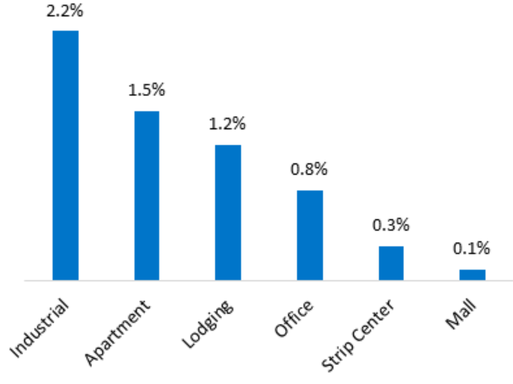


Figure 11
Source: DoubleLine, NCREIF, Morgan Stanley

Strong Price Appreciation Following the GFC

While we expect CRE price declines throughout 2023, it is important to evaluate this expected decline in the context of historical price appreciation. Using year-end 2013 as a starting point and proxy for a typical 10-year hold period, CRE prices increased 95.8% as of year-end 2022. Applying the max CPPI YoY drawdown of 22% to the December 2022 CPPI level results in an index level roughly equal to year-end 2019. While cap rate compression was a significant driver of this price appreciation, NOI growth rates during this period were strong. Annual NOI growth averaged 4.3% in 2014 to 2022, above the average since inception of 2.7%. *(Figure 12)*

All Property NOI Growth | As of Dec. 31, 2022

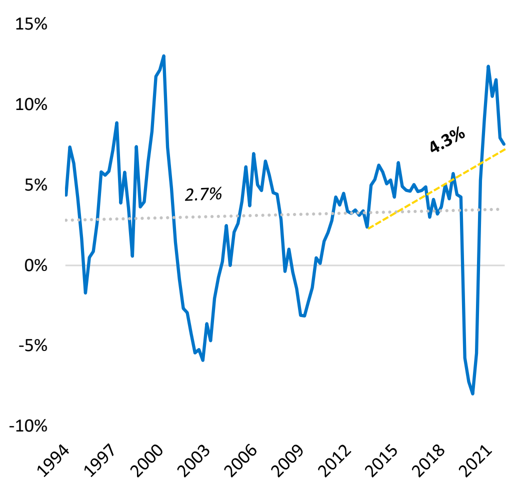


Figure 12
Source: DoubleLine, NCREIF, Morgan Stanley

Between average LTV ratios in the mid-60% range and the level of price appreciation through 2022, we expect that most borrowers will still have material equity value even following a decline in property values in 2023. Given typical hold periods of five to 10 years, properties acquired during 2020 through 2022 still have time to "grow" their way out of potential shorter-term equity impairment.

Increasing Vacancy Rates and Decelerating NOI Growth Rates Primarily a Return to Historical Averages

As noted, we expect that a broader economic slowdown would lead to lower demand, increasing vacancy rates and declining NOI growth rates. Again, given strong performance and healthy fundamentals coming out of the pandemic, the starting point for this potential deterioration is very strong. Outside of specific challenges facing a segment of the office market, we believe potential declining fundamentals largely reflect a return to historical averages. *(Figure 13)*

NOI vs. Vacancy | As of Dec. 31, 2022

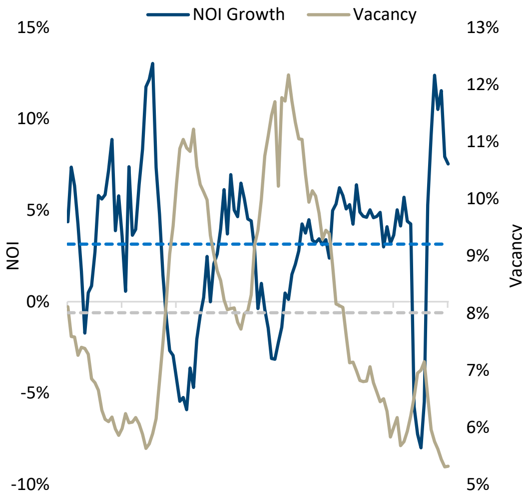


Figure 13
Source: DoubleLine, NCREIF, Morgan Stanley. Blue dashed line represents NOI average. Gray dashed line represents vacancy average.

Established Asset Class in Institutional Portfolios

Institutional investors' target allocation to CRE has increased for nine straight years and is expected to continue to grow in 2023. Despite a decrease in investor sentiment caused by the macroeconomic environment and concerns of overallocation as a result of strong CRE portfolio returns and the denominator effect, institutions are still forecasting a 30-bp increase in allocations for 2023. *(Figure 14)* This increase would be the largest YoY increase since 2014, as investors anticipate the revaluation of CRE properties to present attractive opportunities over the next 12 to 24 months.

Weighted Average Target Allocation to CRE | As of Dec. 31, 2022

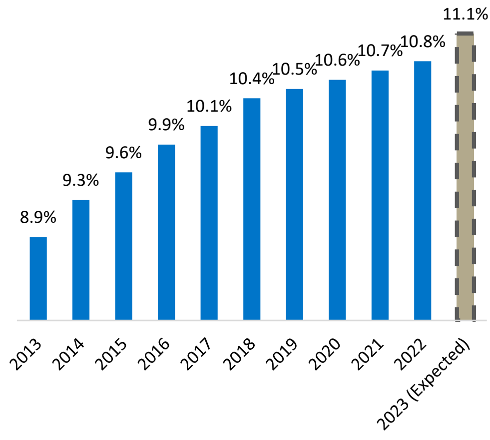
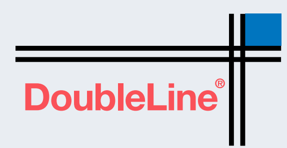


Figure 14
Source: DoubleLine, Hodes Weill & Associates 2022 Institutional Real Estate Allocations Monitor

In addition to increased allocations, "dry powder," the difference between the amount of capital invested in CRE versus the amount available to be invested, stood at approximately $300 billion.[3] While a portion of this dry powder will no doubt be allocated to support existing investments, we expect a sizable portion to be deployed as price discovery becomes clearer during 2023. We expect the combination of increased allocations and historically high dry powder to help limit the extent of property price decline as institutional investors deploy capital at more attractive entry points.

End of Fed Hiking Cycle and Declining Interest-Rate Volatility

We believe that the speed with which the Fed increased interest rates and the initial uncertainty surrounding their ultimate trajectory was at least as impactful in slowing CRE transaction volume and tightening lending conditions as the nominal rates themselves. The correlation between the nominal level of the 10-year Treasury yield and private property prices has been 0.20 going back to 1979. This highlights that the nominal level of interest rates has had little impact on private CRE total return.



CRE Fundamentals Update & Implications for CRE Mortgages

May 2023

Regardless of the ultimate path of interest rates, we believe we are much closer to the end of the current hiking cycle than the beginning. *(Figure 15)* We expect this increased stability to allow investors and lenders to underwrite CRE transactions more confidently. As a result, we expect transaction volume to increase again during 2023 leading to greater price discovery, increased financing demand and better financing liquidity.

Market Implied Fed Funds Rate | As of May 3, 2023

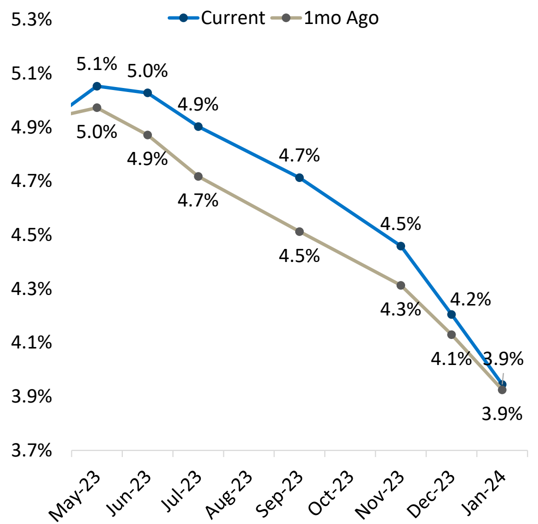


Figure 15
Source: DoubleLine, Bloomberg
Based on Fed Funds Futures.

GFC and Pandemic Lessons Learned

There is no doubt that the rapid increase in interest rates over the course of 2022 combined with tighter lending conditions has created refinancing challenges for loans with fully extended, near-term maturities that were originated almost universally in a much lower interest-rate environment.

Fortunately for the majority of CRE assets, these pressures are primarily the result of the interest rate environment as opposed to property level fundamentals, which as noted earlier in general remain healthy. As a result, we expect to see lenders and servicers offer flexibility in the form of extensions, modifications or both, where possible, with the expectation that the current nominal level of interest rates and recent volatility represent shorter-term impacts to value and that extension will result in higher recoveries than a near-term foreclosure or liquidation at currently depressed values. This strategy was effective during the GFC and in navigating the impact of the COVID-19 pandemic, and we expect it to be utilized again over the next 12 to 24 months.[4]

In addition, CRE owners have benefited from consistent price appreciation following the GFC. We would expect many owners to have significant equity value above their cost basis even at today's potentially lower values. In these instances, we expect to see many owners inject additional cash to refinance at lower proceeds to protect long-term equity value as opposed to selling at today's depressed values or risk losing properties via foreclosure. Opportunistic capital has also been raised to provide mezzanine debt or preferred equity to owners who recognize long-term equity value but might not be sufficiently capitalized to contribute the cash needed to refinance themselves.

Investment Opportunities in CRE Debt

With ongoing macroeconomic uncertainty coupled with higher interest rates, there are segments of the CRE debt market, specifically senior-rated CMBS and newly originated commercial mortgage loans (CMLs), where credit spreads and all-in yields have repriced meaningfully higher since the Fed started its hiking cycle. (Figure 16) As such, we see opportunities for active managers to evaluate the CRE debt landscape and identify attractive investments without taking on incremental credit risk.

CMBS Yield by Rating | As of Apr. 13, 2023

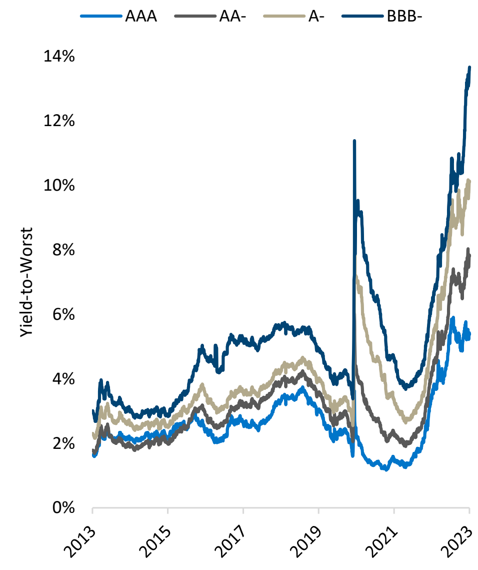


Figure 16
Source: DoubleLine, BofA Indexes

Investment Grade (IG) CMBS

CMBS rated IG provide access to CMLs backed by institutional quality CRE through a liquid, tradeable security. Post-GFC, the CMBS industry underwent a complete change with tighter lender underwriting standards, which resulted in lower-leverage, higher-DSCR loans. Simultaneously, rating agencies updated their models for IG ratings to require increased subordination levels. (Deals issued after 2009 are known as "CMBS 2.0.") For context, the average LTV for CMBS 2.0 issuance is 52.8%, and subordination levels increased dramatically across the junior AAA through BBB-rated classes relative to CMBS 1.0. We believe this combination of lower LTV with higher credit enhancement provides insulation from principal impairment, even considering losses experienced during the GFC. *(Figure 17)*

CMBS Deal Metrics	CMBS 1.0 (2007)	CMBS 2.0 (2022)
LTV	70.0%	52.8%
DSCR	1.4x	2.6x
Debt Yield	8.9%	11.5%
AAA Credit Enhancement	12.0%	19.5%
AA Credit Enhancement	10.0%	15.0%
A Credit Enhancement	7.6%	11.1%
Average Cumulative Loss	7.2%	0.6%

Figure 17
Source: DoubleLine, BofA Global Research. Deal metrics for CMBS 1.0 represent 2007 vintage conduit deals. CMBS 2.0 represents 2022 vintage conduit deals. Average cumulative loss for 1.0 from deal vintage 2000 to 2008; 2.0 from deal vintage 2010 to 2022.

In addition to better structural protection, current spread levels offer attractive relative value, particularly at the top of the capital structure. Spreads for CMBS rated AAA and AA- are in the 99th percentile going back to 2012. In other words, spreads have only been wider 1% of the time since 2012. Spreads for CMBS rated A- are in the 98th percentile. This compares to the 67th percentile for IG and 59th percentile for high yield (HY) corporate bonds. (Figure 18) Our expectation for a lag in spread tightening relative to corporates should allow CMBS investors to realize additional return potential on a relative basis.

Current Spread vs. Percentile Rank | As of Apr. 13, 2023

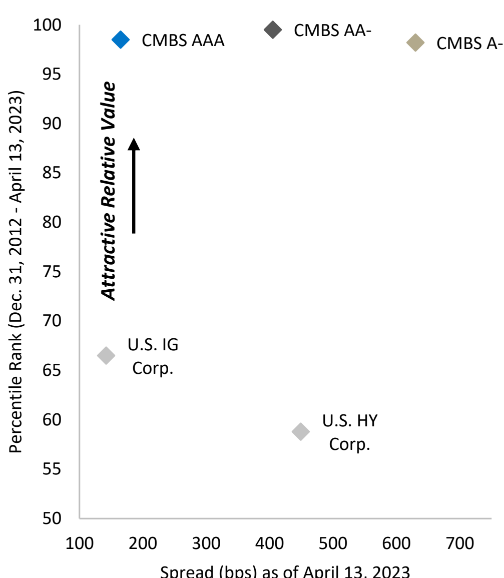


Figure 18
Source: DoubleLine, Bloomberg

While we expect CRE fundamentals to continue to deteriorate over 2023, given current spread percentiles, the CMBS market has already priced in some of this risk, particularly at the higher-rated portions of the IG CMBS market. We see opportunities for active managers to assemble portfolios with strong risk-adjusted returns while avoiding idiosyncratic risks associated with particular vintages or property types most vulnerable to a decline in fundamentals.

Commercial Mortgage Loans

CMLs are debt instruments secured by a first-lien mortgage on CRE assets. Structurally senior to the borrower's equity, CMLs have a priority claim to the underlying property's operational cash flows. Given their contractual coupon payments, interest rate sensitivity and credit risk attributes, CMLs should be considered as a fixed income alternative. CMLs generate total return mainly from scheduled contractual principal and interest payments, not asset appreciation.

While not as liquid as IG CMBS, CML strategies allow managers to curate bespoke portfolios based on duration, yield and credit risk appetite. Because CRE performance can often be unique down to the property address, portfolios can invest in specific geographies, property types or industries. This selectivity allows investors to act strategically and opportunistically on particular convictions.

In addition to credit customization, CML portfolios can be designed to offer floating- or fixed-rate profiles and meet yield, duration and risk targets.

Importantly, we believe the overall tightening of lending standards combined with an expected pullback in origination volume by regional banks ahead of approximately $2.5 trillion of maturing loans over the period 2023-2027 will create a unique opportunity for private lenders to gain market share at attractive leverage and pricing points. *(Figure 19)*

Maturing Loans by Lender Type | As of Dec. 31, 2022

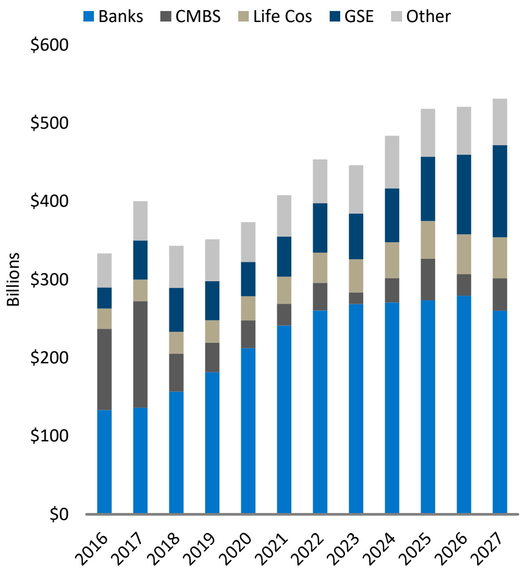


Figure 19
Source: DoubleLine, Trepp

Figure 19. Source: DoubleLine, Trepp, as of Dec. 31, 2022

Conclusion

While there is no doubt that the dual headwinds of higher interest rates and potential economic slowdown present challenges for the CRE market, we remain constructive on CRE first mortgages. Despite the constant barrage of negative CRE headlines, we would caution against painting the entire CRE debt market with a broad brush. Outside of unique, secular headwinds facing a segment of the office market, CRE fundamentals in general remain healthy. Distressed sales still represent an extremely low share of total sales, and mortgage delinquency rates across lending sources remain low at this time.[5] *(Figure 20)*

CRE Delinquency by Lending Sources | As of Dec. 31, 2022

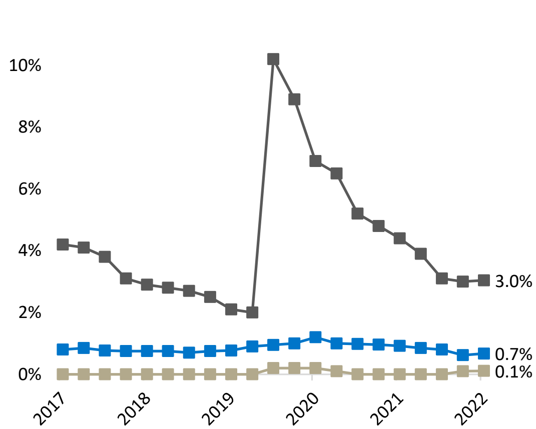


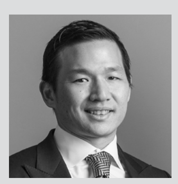
Figure 20
Source: DoubleLine, ACLI, CRE Finance Council. Bank and CMBS delinquencies (30-days+); Life Insurance (60-days+)

While we expect both metrics to increase during 2023, we also expect lenders and servicers will employ modifications and extensions, practices expected to result in higher recoveries than near-term foreclosures and/or liquidations at currently depressed values. In addition, given the broader CRE price appreciation, we expect many borrowers facing near-term loan maturities to inject additional cash to refinance at lower proceeds to protect long-term equity.

Not all borrowers will be able to protect their equity, and there will be loans where the equity is materially impaired. Furthermore, time will not help all deals if the underlying fundamental outlook has deteriorated dramatically. That said, while we do expect to see an increase in delinquency and special servicing rates over the next 12 to 24 months, we expect the preponderance of such pain to be felt by owners as opposed to lenders.

For investors who can actively manage exposure to property types with the most favorable fundamental outlooks and avoid idiosyncratic risks, we continue to believe CRE mortgage exposure can provide attractive risk-adjusted return opportunities. ■

For additional thoughts on the CRE market broadly, watch DoubleLine's **PS Perspectives** (Episode 6) featuring DoubleLine Portfolio Manager Morris Chen.



Morris Chen
Portfolio Manager, Structured Products - CMBS

Mr. Chen joined DoubleLine at its inception in 2009. He is a Portfolio Manager leading the CMBS/CRE Debt Investment team and CRE New Investment Review Group, and is responsible for the oversight and management of all CRE Debt related investments at DoubleLine. Mr. Chen is a permanent member of the Fixed Income Asset Allocation and Structured Products Committees providing valued insight into the CMBS sector. He is also an active participant and speaker at CREFC events. Prior to DoubleLine, Mr. Chen was a Vice President at TCW where he was responsible for CMBS credit analysis and trading from 2004-2009. He holds a BS in Business Administration with concentrations in Business Development and Finance from the University of California, Riverside.

Christopher Fagan, CFA®
Director of Credit, Structured Products - CMBS

Mr. Fagan joined DoubleLine in 2016 as a CMBS/CRE Analyst and later promoted to Director of Credit. Prior to DoubleLine, he was a Vice President in the Real Estate Structured Finance group at Bank of America Merrill Lynch. Previous to that, Mr. Fagan worked in restructuring at Mesirow Financial and Seneca Financial. He holds a B.S. in Commerce with concentrations in Finance and Accounting from the University of Virginia. He is a CFA® charterholder.

Phil Gioia, CFA®
Product Specialist

Mr. Gioia joined DoubleLine in 2018. He is a member of the Product Specialist Team. 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 Structured Product strategies. Mr. Gioia is also responsible for producing market commentary and dedicated strategy content. As part of the Product Specialist 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 BS in Financial Management and Business Administration with a minor in Accounting from Salve Regina University. Mr. Gioia is a CFA® charterholder and holds the Series 7 and 63 Licenses.

Endnotes

1. Bloomberg ECFC contributing economists forecast 65% probability of recession within next 12 months and negative real GDP in Q3 2023.
2. Simple average of projection ranges from Morgan Stanley Research, Deutsche Bank Research, JP Morgan Research, BofA Research and Barclays Research
3. Morgan Stanley, June 2022
4. Deutsche Bank Research. "CMBS: What about SASB credit?" November 2022. Loss severities on CMBS 1.0 loans that were modified and ultimately defaulted were considerably lower than severities for loans that defaulted without being modified.
5. RCA, "Watching for Distress in the US Market in 2023," February 16, 2023. Sales of distressed assets accounted for just 1% of total sales in 2022.

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.

Commercial Mortgage-Backed Securities (CMBS) – Securitized loans made on commercial rather than residential properties.

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.

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.

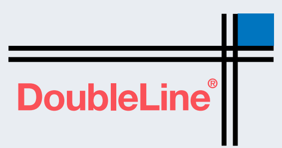
Duration – Measure of the sensitivity of the price of a bond or other debt instrument to a change in interest rates.

Fed Funds Futures – Financial contracts that represent the market opinion of where the daily official federal funds rate will be at the time of the contract expiry. The futures contracts are traded on the Chicago Mercantile Exchange and are cash settled on the last business day of every month. Fed fund futures can be traded every month as far out as 36 months.

Federal Funds Rate (FFR) – 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.

Global Financial Crisis (GFC) – Severe worldwide economic crisis in 2007 and 2008 that was the most serious financial crisis since the Great Depression of 1929. The crisis was triggered by aggressive lending practices that targeted low-income homebuyers, excessive risk-taking by global financial institutions and the bursting of the U.S. housing bubble. Governments in response employed massive bailouts to financial institutions and enacted other financial and monetary policies. Some governments, including the United States, also imposed stricter oversight of the financial industry.



CRE Fundamentals Update & Implications for CRE Mortgages

May 2023

Government-Sponsored Enterprise (GSE) – Quasi-governmental entity established to enhance the flow of credit to specific sectors of the American economy. Created by acts of Congress, these agencies – although they are privately held – provide public financial services. GSEs help to facilitate borrowing for a variety of individuals, including students, farmers and homeowners.

Gross Domestic Product (GDP) – Market value of all final goods and services produced within a country in a given period. GDP is considered an indicator of a country's standard of living.

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.

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.

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 Debt-Service Coverage Ratio (DSCR) – The debt-service coverage ratio (DSCR) applies to corporate, government and personal finance. In the context of corporate finance, the debt-service coverage ratio is a measurement of a firm's available cash flow to pay current debt obligations. The DSCR shows investors whether a company has enough income to pay its debts.

Mortgage Debt Yield (DY) – Return a lender would receive if it were to foreclose on the property on day one. Debt yield can be thought of as a lender's perspective of the capitalization rate, the cash flow a property generates relative to a loan amount or lender's basis.

NCREIF – National Council of Real Estate Investment Fiduciaries

Net Operating Income (NOI) – Calculation used to analyze the profitability of income-generating real estate investments. NOI equals all revenue from the property, minus all reasonably necessary operating expenses.

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.

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.

Terminal Federal Funds Rate – This rate is what economists call the "natural" or "neutral" interest rate. It is the rate that is consistent with full employment and capacity utilization, and stable prices.

You cannot invest directly in an index.

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