

Charted territory

Anatomy of a CRE correction Views on today's commercial real estate landscape

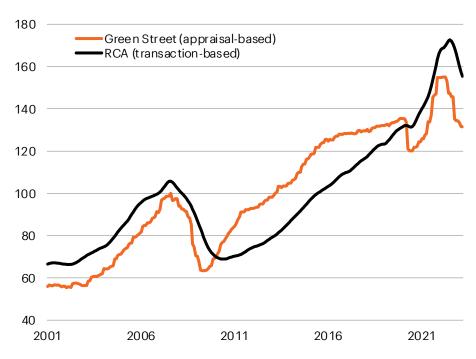
The commercial real estate (CRE) market is undergoing a painful correction today, as demonstrated by declining property values and tepid investment activity. In this chartbook, we analyze the causes, address concerns around debt financing, and examine what comes next.

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This is what a correction looks like

Property values are declining across CRE sectors

Commercial property price indexes

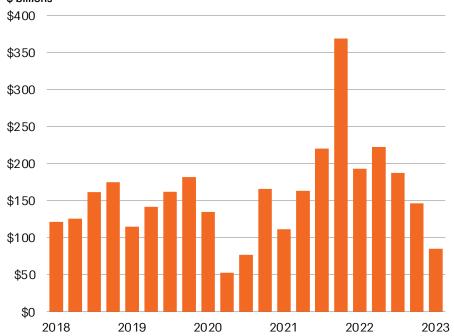


Sources: Green Street, MSCI Real Capital Analytics, as of March 31, 2023.

There is no use in sugarcoating the issues facing U.S. commercial real estate—the asset class is in the midst of a meaningful correction. Property values, which soared for almost two years consecutively through mid-2022, have begun to decline rapidly. A price index from Green Street that is based on appraised property values has fallen -15.2% from its all-time high while a transaction-based index from Real Capital Analytics shows values down -10.0% from their peak. Of course, the ultimate determinant of value is the level at which transactions occur, and sales have been in short supply. Total transaction volumes were just \$85 billion during Q1, a number that pales in comparison to the nearly \$200 billion in sales from Q1 2022.

Transaction activity has dried up amid uncertainty

CRE quarterly transaction volume \$ billions



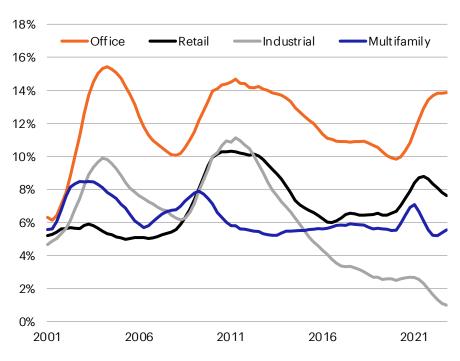
Source: MSCI Real Capital Analytics, as of March 31, 2023.

It is clear to us that the sharp rise in interest rates, alongside a slowing economy and secular doubts around certain property types, has driven a wedge between CRE buyers and sellers. The dearth of sales illustrates the uncertainty surrounding the asset class and the likelihood that, despite property values having fallen from their peak at a faster pace than in the early months of the Global Financial Crisis (GFC), these price declines have further to go to draw buyers in. These dynamics invite challenging questions: how similar is today to the GFC? Will debt markets be able to provide enough liquidity? What will become of the office sector? We attempt to provide answers to the many questions facing the CRE market in this chartbook.

Fundamentals: No smoking gun here

Vacancy rates are healthy in most CRE sectors

CRE sector national vacancy rates



Source: MSCI Real Capital Analytics, as of December 31, 2022.

Despite the ongoing repricing of CRE asset values, the underlying cash flow fundamentals for most property types are quite stable. As the chart above shows, national vacancy rates are either declining or below pre-COVID levels in three of the four major sectors. Office is an outlier for obvious reasons, and while it is a key real estate sector, has become a much smaller component of CRE markets over time (just 14% of sale volumes over the past 12 months). We will share our views on office properties later in this chartbook. The consumer-oriented CRE sectors appear healthy; retail has benefitted from nominal retail sales that are 16% above the pre-COVID trend while hotels have made a remarkable comeback, especially in leisure-focused locales.

Despite challenges, multifamily has durable tailwinds

Premium to buy vs. rent

1989

1994



Sources: National Association of Realtors, U.S. Census Bureau, as of December 31, 2022.

1999

That leaves the secular winners of real estate markets over the past five years: industrial and multifamily. The industrial space is seeing new construction begin to smooth what had been a lopsided demand/supply equation, but with vacancy rates so low and market rents 37% above pre-COVID levels, the sector appears strong. Multifamily has experienced the largest decline in asset values due to a combination of low starting cap rates and slower rent growth. There are concerns around elevated new construction in some metros. But the number of units completed over the past three years plus those currently being built equals just 1.4% of the U.S. housing stock, which is about average since the early 1970s. Apartments also enjoy the benefits of a robust labor market and a record-high discount for rents compared to mortgage payments.

2004

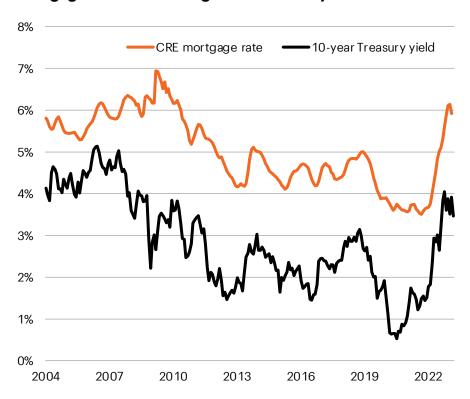
2009

2014

2019

The shock to the cost of debt has been profound

Mortgage rates hit their highest level in 13 years

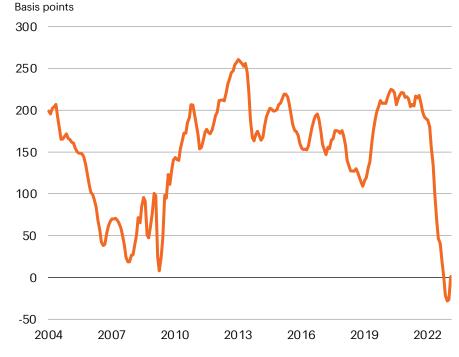


Source: MSCI Real Capital Analytics, as of February 28, 2023.

In our view, the proximate cause for the correction in CRE is the significant and rapid rise in interest rates, which has pushed financing costs from all-time lows to 13-year highs in the span of one year. The Fed's belated response to above-trend inflation forced it to hike its policy rate by 500 bps between March 2022 and today, the most aggressive hiking cycle in four decades. Despite significant yield curve inversion, this has still managed to push the 10-year Treasury to around 3.5% today after it averaged 1.4% during 2021. The shock to CRE financing has been profound; for an asset class in which 50%–80% of financing is in the form of debt, the rise in mortgage rates from 3.5% in 2021 to north of 6% today has had profound and negative impacts on returns for property owners.

Cap rates will likely need to adjust higher

CRE cap rate—mortgage rate spread



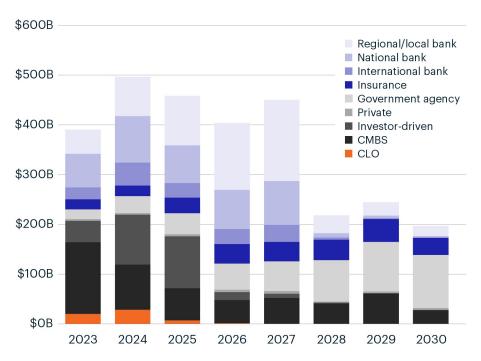
Source: MSCI Real Capital Analytics, as of February 28, 2023.

One way to consider the impact of higher interest rates is expressed in the right chart above. In its simplest form, the business model of CRE equity investors is to leverage the spread between a property's yield (cap rate) and its cost of debt (mortgage rate). When that spread is wide, as it was for most of 2020–2021, return expectations are robust. As we can see, that spread has quickly narrowed to zero, meaning today's cap rates and mortgage rates are roughly equal on average—a very rare occurrence historically. Absent some ability to drive incredibly strong rent growth, equity investors will not see these levels as attractive—hence today's muted sales volume. Ultimately, if mortgage rates remain elevated, the path to a more normalized market likely involves higher cap rates, implying lower property values.

Maturity wall + dry powder = liquidity

Loan maturities over the next few years are significant

Volume of maturing commercial property loans by lender type

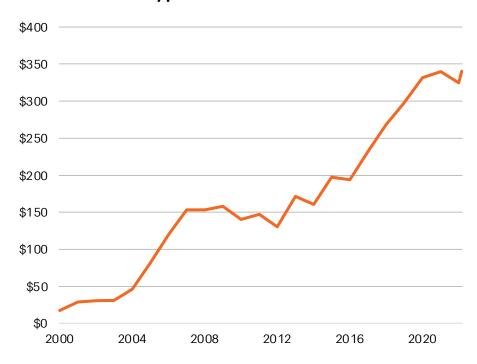


Source: MSCI Real Capital Analytics, as of December 31, 2022.

The CRE market is staring down a wall of loan maturities equal to about \$400 billion in par value. This represents a large sum in nominal dollar terms, but at roughly 8% of total outstanding debt, it is not dissimilar from the average year historically. Still, it will require significant refinancing capital during a time when banks are tightening standards and the CMBS market is hampered by widening spreads. Roughly half of the debt coming due is sourced from the CMBS market, a consequence of robust CMBS activity a decade ago (CMBS loans are generally 10 years in length). The supply of capital will be tested throughout the year, but given lower capital demand from the property acquisition side—sales are running 33% below even pre-COVID levels—we believe even a constrained lending market will be able to refinance healthy assets.

Equity funds have lots of capital to deploy

Private CRE funds' dry powder

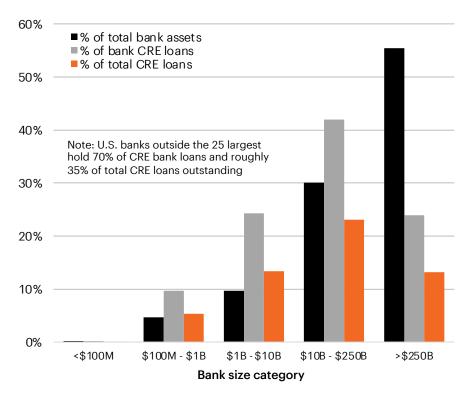


Source: Preqin, as of February 28, 3023.

In fact, the strong level of refinancing transactions that are likely to occur this year may actually aid in bringing liquidity back to the market. Price discovery has been sorely lacking, especially in areas like central business district (CBD) office, where the \$2.6 billion of sales in Q1 were the least in a quarter since 2010. One reason price declines were dragged out over 2.5 years following the global financial crisis (GFC) was the painful deleveraging—hamstrung debt markets struggled to provide capital, breeding investor uncertainty around where true "value" sat. In this cycle, refinancing deals will lead lenders to imply a property value, ultimately aiding in price transparency. With around \$350 billion in capital sitting in private CRE investments funds, there should be no shortage of investors anxious to transact once property values reach an equilibrium.

Regional banks: Will they step back?

Smaller banks punch above their weight in CRE lending

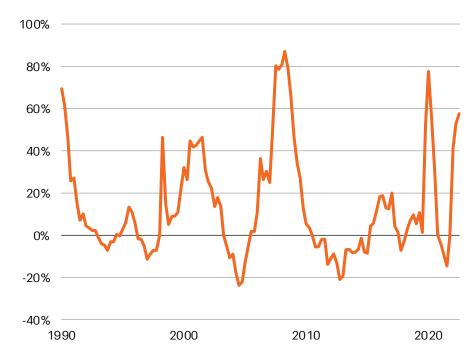


Source: FDIC, as of December 31, 2022.

The failure of Silicon Valley Bank (SVB) and Signature Bank, and the corresponding flight of bank deposits, has market participants considering the role of banks in CRE debt markets. Banks hold roughly 55% of outstanding CRE mortgages and were responsible for half of CRE lending activity in 2022. While total assets in the banking system are quite concentrated in the largest banks, CRE loan assets skew toward mid-size and regional banks, which are better equipped to understand local real estate markets. In all, we can estimate that small and mid-size banks—those outside the top 25 in total assets—hold around 35% of U.S. commercial mortgages. This makes them a key source of capital for the asset class and makes their response to financial stresses critical for the space.

Banks were tightening their belts prior to recent events

Net % of banks reporting tightening lending standards



Source: Federal Reserve, as of December 31, 2022.

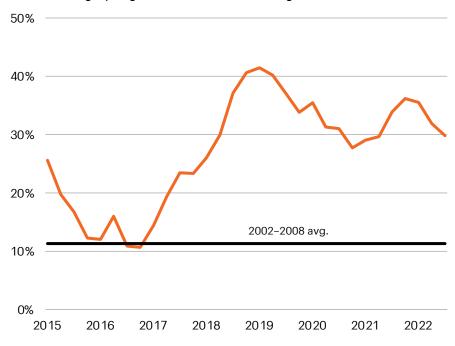
Even prior to recent events, banks were signaling they would be paring back growth in all manner of business credit, commercial mortgages included. Lenders, which opened the credit taps in 2021 and early 2022 to fund robust growth in investment and capital expenditures, have turned decidedly more cautious as rate hikes threaten to send the economy into recession. On the whole, it is reasonable to expect bank lenders to continue tightening their credit standards, but banks are not a monolith. There are more than 4,000 U.S. banks, not to mention foreign banks that are active in the market, with a wide range of financial positions and loan portfolio compositions. We believe regional and midsize banks will remain crucial players in the CRE debt markets but expect them to be more restrained in the near future.

CRE lending is a big, diverse market

Non-traditional lenders drive growth in CRE debt markets

% of CRE loan growth sourced outside banks + CMBS

Based on rolling 2-year growth of CRE debt outstanding

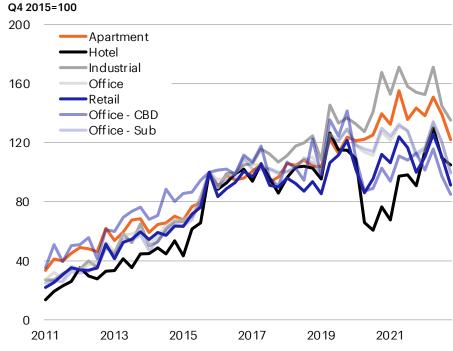


Source: Federal Reserve, as of December 31, 2022.

Not only are banks likely to be more restrained going forward, but the CMBS market—another important source of financing—has encountered choppy waters over the past few quarters. Private label (non-Agency) issuance was just \$6 billion in Q1 following \$8 billion in Q4 2022, a far cry from an average \$35 billion over the previous seven quarters. Spreads on CMBS bonds have widened meaningfully as investors have balked at both the duration profile and the elevated office exposure in most CMBS deals. All this suggests traditional lenders to CRE will have lower lending capacity in the coming quarters, begging the question of whether there is enough supply of capital coming from other sources to plug the hole.

Today's CRE lending market is much more diverse

Index of unique lender count



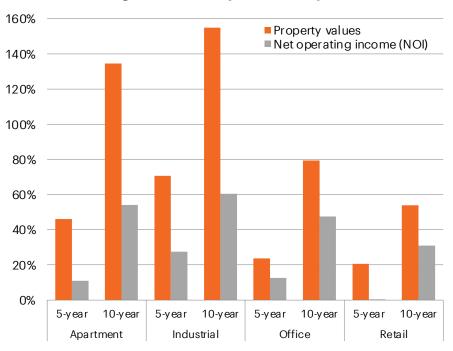
Source: MSCI Real Capital Analytics, as of December 31, 2022.

We believe there is. Alternative lenders—those outside banks and CMBS—have accounted for between 30% and 40% of the *growth* in CRE lending over the past five years. These lenders, which are comprised of an amalgamation of debt funds, mortgage REITs, insurance companies, and other investors, have become increasingly active in the market in recent years. Many of these players do not have the same types of issues financing their operations as banks (deposit flight) and CMBS (uncooperative public markets) do. The absolute number of active lenders has also increased significantly. For example, even as certain players pull back, there are more than double the number of unique lenders to office properties active today as there were just a decade ago.

Tailwinds for financing market

Most properties have seen their values, NOI rise

Price and income growth over the past 5 and 10 years

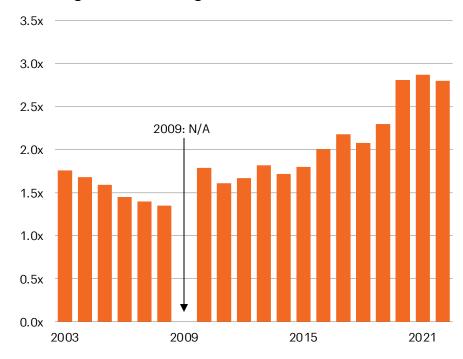


Source: MSCI Real Capital Analytics, as of March 31, 2023.

The combination of lower property prices and tighter lending conditions is already pressuring borrowers, with the outlook for equity returns meaningfully reduced. The larger question on investor minds is whether this lower-return environment will morph into a wave of distress, with property owners unable to refinance maturing debt. Aside from improved lender diversity discussed previously, we see two main supports for the market. First, many of the loans coming due are collateralized by properties that have seen meaningful increases in both value and income since origination. For example, the average 10-year, fixed-rate apartment loan has seen its collateral increase by more than double and its net operating income (NOI) rise 60% over that time frame. Assuming an initial loan-to-value (LTV) of 60% and debt service coverage ratio

Underwriting standards have been conservative

CMBS avg. DSCR at loan origination



Source: JPMorgan CMBS Research, as of December 31, 2022.

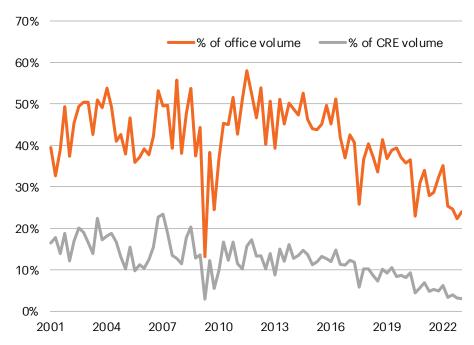
(DSCR) of 1.5x, today the loan would hold an implied LTV of 26% and DSCR of 2.3x. This growth in property values—even accounting for recent declines—and income over time should allow many borrowers to meet the demands of lenders for lower LTVs without needing to inject fresh equity. Of course, the benefit of loan "seasoning" will vary greatly across loans but in the aggregate should be a key tailwind. The second support comes from conservative loan underwriting over the past 15 years. Average LTVs have been 55%–60% over this span, compared to 70%-plus prior to the GFC. DSCR ratios have also been much higher, as the right-hand chart shows. These dynamics mean on average, it will take greater property value declines for lenders to be impacted, and on the income side, properties should be better equipped to handle the substantial rise in financing costs.

Office: The outlier

CBD office, now an afterthought in real estate markets

CBD office sale volumes as a % of market

Based on quarterly transaction volume



Source: MSCI Real Capital Analytics, as of March 31, 2023.

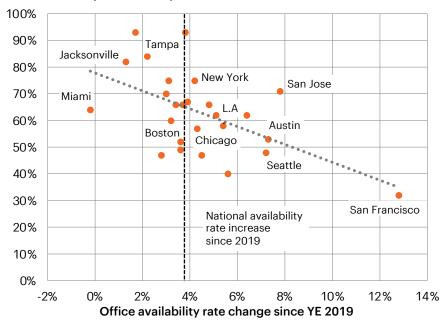
The trillion-dollar elephant in the room for CRE continues to be the office sector. The remote work phenomenon that began with the onset of COVID has now settled into what appears to be a new normal, with the overwhelming majority of workers valuing location flexibility. This has put significant pressure on office fundamentals, pushing vacancy and availability rates higher and rents lower. Income generation remains healthy enough for many office properties because leases are mostly long term and will take time to roll off. However, it has become clear from major corporate tenants across key industries that demand is slumping. Central business district (CBD) office properties are in the eye of the storm and have seen their sales activity slow to a crawl; in Q1 representing just 24% of overall office sector sales and 3% of total CRE activity.

Downtown recovery has been highly uneven

Availability rate increase vs. downtown activity

Select metro areas

Downtown cell phone activity vs. 2019

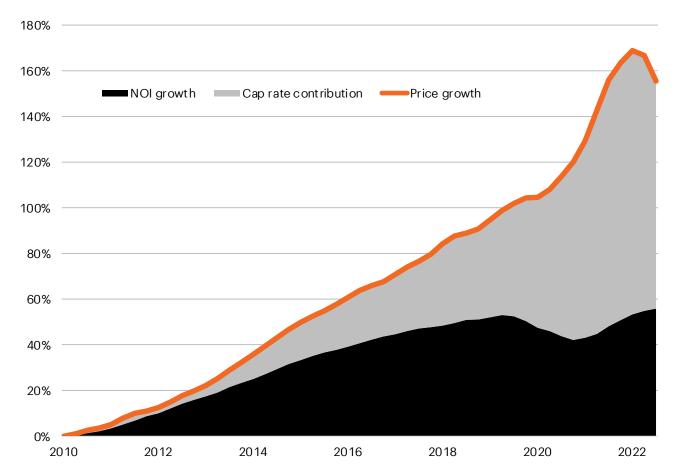


Sources: JPMorgan CMBS Research, University of Toronto School of Cities, as of December 31, 2022.

There is clearly uncertainty around how far office values will fall. Roughly 25% of CRE loan maturities this year are backed by office assets, representing around \$100 billion of principal. In our view, office is the outlier, as many refinancings will require fresh equity capital to compensate for lower property values. The weakest properties, which will be largely comprised of poorly located older-vintage buildings in certain CBDs, will likely look to negotiate loan modifications and extensions with lenders. The right-hand chart above illustrates the dispersion in downtown recoveries and its impact on local office fundamentals. Ultimately, we believe: 1) office values must reset materially lower, 2) there will be wide dispersion at the metro and property level, and 3) distress will rise but be concentrated in the most out-of-favor buildings.

First, a correction. Then, a new investing era.

Contribution to CRE property price growth since GFC trough



"We firmly believe this [new] backdrop calls for a different approach, one that is diversified across the capital structure and focused on property-level fundamentals."

Clearly, there is palpable uncertainty around the economy, interest rates, and the future use case for certain property subsectors. Broadly speaking, we believe the CRE market is undergoing a correction that will be followed by a new investing era—one dominated by current yield and income growth, rather than a relentless increase in the valuations assigned to those cash flows.

Cap rates charted a downward path for much of the 2010s, falling from around 8% in 2010 to below 6% at the end of last year. While rising valuations can be a sign of improving income growth expectations, the tepid economic performance of the past decade would contradict that as the primary reason for lower cap rates. Rather, ultra-low rates and plentiful liquidity distorted the market via cheap financing and compressed risk premia.

In our view, what we are seeing today is a partial correction of these low-rate excesses, which hit a fever pitch in 2021 as the 2-year Treasury vield remained below 0.25% for the first three quarters of the year. This correction will likely entail further price declines, as the market comes to terms with higher financing costs. Even after cap rates have repriced higher, we expect the CRE investing landscape to be profoundly changed. Returns will be comprised primarily of current yield and income growthdriven (rather than valuation-driven) appreciation. We firmly believe this backdrop calls for a different approach, one that is diversified across the capital structure and focused on property-level fundamentals.



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All data as of April 30, 2023, unless otherwise noted.

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