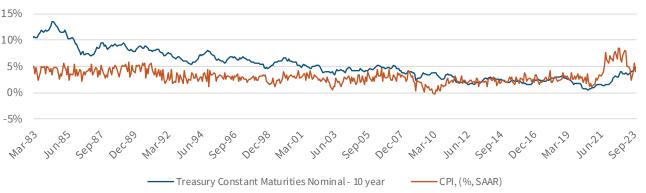


DECEMBER 2023

Multifamily Values Not Driven Solely by Rent Growth

Inflationary pressures have declined significantly over the past year, and while the 10-Year Treasury rate is elevated compared to recent trends, it remains historically low, as seen in the chart below. Nevertheless, one of the reasons why multifamily property sales have been subdued this year is because of higher interest rates, yet multifamily capitalization rates (a measure of a property's income relative to its value) have not changed significantly, increasing only 60 basis points to 5.3% as of third quarter 2023 from 4.7% as of third quarter 2022, according to data from MSCI Real Assets.

10-Year Treasury vs. Inflation

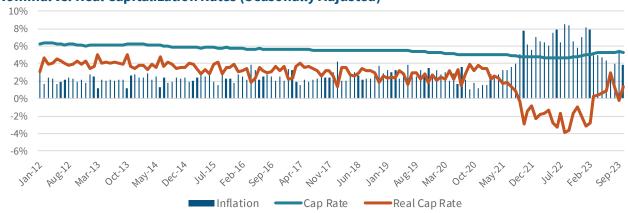


Source: Federal Reserve, Moody's Analytics

Multifamily Prices Remained Elevated After Adjusting for Inflation

Real multifamily cap rates (the difference between a property's cap rate minus the inflation rate) stopped yielding a return once inflation topped 5.0% back in September 2021. This trend continued until March 2023, when the inflation rate fell back below the 5.0% threshold. At the peak of inflation, which was at 8.5% in August 2022, real multifamily cap rates bottomed out at negative 3.8%, as seen in the chart below. Although real multifamily cap rates have remained positive since March 2023, thanks primarily to the drop in inflation, the spread between nominal and real cap rates is at 390 basis points, which is somewhat higher than the historical average since 2012 of 310 basis points.

Nominal vs. Real Capitalization Rates (Seasonally Adjusted)

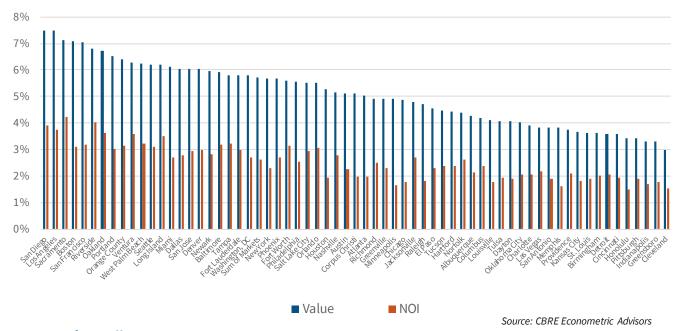


Source: MSCI Real Assets, BLS

Price Appreciation Outpaced Net Operating Income Growth...

Much of the growth in multifamily property values over the past two decades has stemmed from price appreciation of properties, rather than from the net operating income (the income a property produces, after expenses), and that has been consistently the case over the long term, as seen in the chart below. Positive demographic trends have been a big driver of multifamily valuations, as the 20- to -34-year-old cohort – those most likely to rent multifamily units – has continued to increase in size. Indeed, this cohort is expected to peak in 2024 at an estimated 69 million people, up from 67 million in 2016, according to Census Bureau projections.

1999 – 2022 Average: CBRE-EA Value and Net Operating Income Indices (Five-Year Average Annual CAGR)



... Even in Smaller Metros

Multifamily property prices have benefited from both positive net operating income and property value appreciation to differing degrees depending on the metro. In many higher-cost California metros, such as **San Diego**, **Los Angeles**, **San Francisco**, and **Orange County**, the increase in price appreciation has been higher than net operating income over the long term, as seen in the chart above. The same is true for other higher-cost metros, including **Boston**, **Portland**, **Seattle**, **Miami**, **Chicago**, and **Honolulu**.

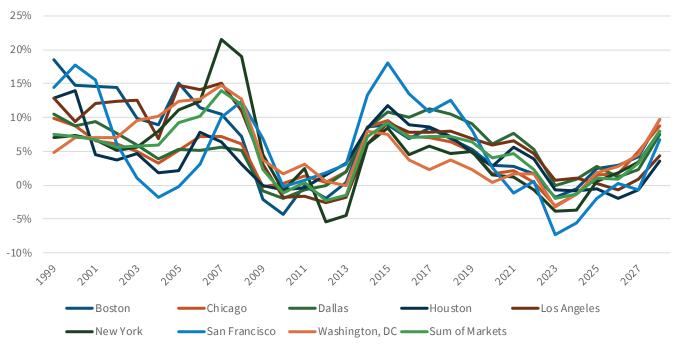
However, even in less expensive metros, such as **Cleveland**, **Pittsburgh**, **St. Louis**, and **Kansas City**, multifamily property price appreciation has been the primary driver in higher valuations, consistently outpacing net operating income. Interestingly, some metros have seen a much larger increase in price appreciation from valuations. Unsurprisingly, **New York** is one such metro, but so is **Houston**, **Minneapolis**, **Memphis**, and **Raleigh**, further demonstrating the belief many investors have in the power of demographics in terms of ongoing multifamily demand across the country.

Property Price Appreciation is a Matter of Timing...

Multifamily property value growth has followed a similar trajectory for some of the nation's largest metros, as seen in the chart below. Although there have been periods of significant increases in valuations, there have also been periods of negative growth, most notably between 2009 and 2010 during the Great Recession, as well as more recently beginning in 2022 as interest rates began to rise.

When looking at valuation changes, timing can make a big impact. For example, **Boston** multifamily prices, measured over a five-year-rolling period, declined 8.4% from 2009 to 2012, but then rebounded by nearly 25% from 2013 to 2016.

CBRE-EA Value Indices (Five-Year-Rolling Average Annual CAGR)



Source: CBRE Econometric Advisors

... But Patience is a Virtue

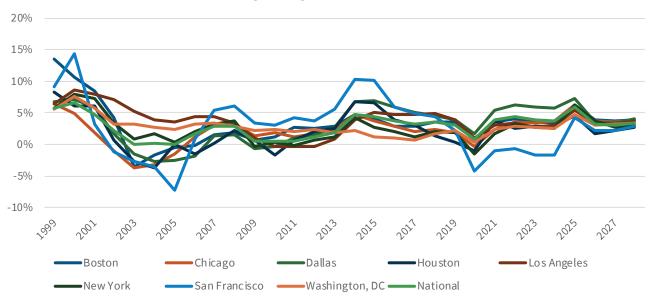
Very few metros have seen periods of significant decline. In addition to Boston, other large multifamily metros such as **San Francisco**, **New York**, and **Los Angeles**, have seen a few periods of price declines. Overall, however, multifamily investment yields positive appreciation over time.

Owning a multifamily property tends to favor a long-term hold strategy, which some investors have not heeded over the past few years, despite a slowly declining value index trend commencing in 2015. Indeed, multifamily property sales activity peaked in 2021 at nearly \$358 billion, according to data from MSCI Real Assets, but have since then declined significantly, with multifamily sales totaling \$305 billion in 2022 but just \$91 billion as of third quarter 2023.

NOI is Less Volatile...

Net operating income (NOI), on the other hand, tends to be less volatile, as seen in the chart below. Although there are periods in which some metros will experience negative NOI growth, they tend to be short-lived, since many property owners can quickly pivot to cut costs to adjust to declining revenues. **San Francisco** is one example of extreme swings, with net operating income, measured over a five-year-rolling period, declining 14.7% between 2002 and 2005, but then rebounding by nearly 16% between 2006 and 2009. Some of this rebound occurred during the Great Recession, while other metros were experiencing a more stressful environment.

CBRE-EA NOI Indices (Five-Year-Rolling Average Annual CAGR)



Source: CBRE Econometric Advisors

... But Also Favors A Longer Timeline

A longer hold time is also more favorable for NOI, since it provides property owners time to recoup capital expenditures and improvement costs, while also providing tenants with more stable and less dramatic rental increases.

We believe that multifamily property investment trends will see a longer hold period over the next few years, since property price appreciation trends have been moderating and are expected to continue to do so with interest rates staying higher for longer. Currently, we anticipate that the 10-year Treasury will remain well above 4.5% through 2025 and that inflation will stay above the Federal Reserve's 2% target during that same timeframe. Therefore, we do not expect to see a flurry of property sales activity during the next 12 to 18 months, keeping many multifamily property owners owning longer than perhaps originally anticipated, but also perhaps keeping both values and NOI stable for longer.

Kim Betancourt, CRE, Vice President

Tim Komosa, Senior Manager

Stephen Gardner, Lead Associate

Multifamily Economics and Strategic Research

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