



KEEP YOUR EYES ON THE PRIZE

STEADY IMPROVEMENT EXPECTED FOR MULTIFAMILY CAPITAL MARKETS IN 2024

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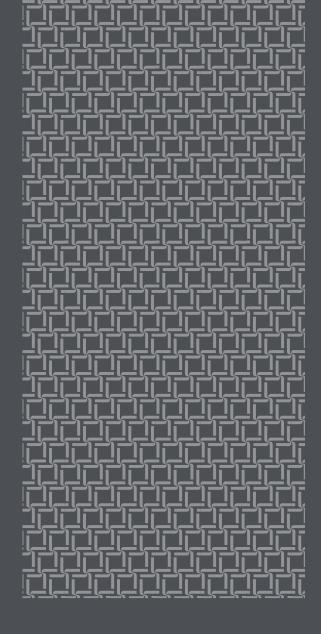
INTRODUCTION

The past 1½ years have been difficult for the multifamily industry from a capital markets perspective. This is especially the case when making comparisons with the industry's spectacular late 2020 to early 2022 period of record investment activity, low borrowing costs, and impressive asset appreciation.

But keep your eyes on the prize. Multifamily's capital markets environment — the universe of all debt and equity decisions, valuations, risk pricing, and investment strategies for existing and to-be-built assets — will improve considerably in 2024. Even stronger gains are expected in 2025.

Multifamily's capital markets revival combined with the sector's long-term market strength based on robust demand will keep multifamily product in a favorable investment position over the long haul.

This paper reviews the principal macroeconomic forces underlining multifamily's recent capital markets dislocation, particularly Federal Reserve monetary policy and market interest rates. It examines the major capital markets challenges within the financing, investment, and asset pricing arenas. It provides views on how the principal drivers and components of multifamily capital markets are likely to trend in 2024 and 2025.



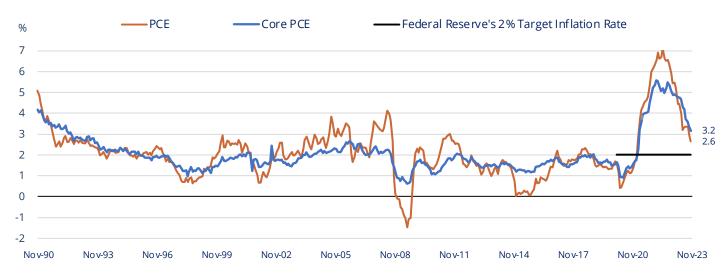
2024 TO BRING RENEWED INVESTOR CONFIDENCE, INVESTMENT **AND FINANCING ACTIVITY, AND ASSET PRICING**

CAPITAL MARKETS STORY STARTS WITH INFLATION

Many macroeconomic factors have contributed to the recent multifamily capital markets disruption. The most important of these is interest rates. At the root of 2022 and 2023's rapid rate climb was inflation. Coming out of COVID, with pent-up demand for a broad range of goods and services, nationwide shortages developed, leading to the highest inflation that the U.S. had experienced since the 1980s.

By June 2022, the Personal Consumption Expenditures (PCE) Price Index, the Federal Reserve Bank's preferred measure of inflation, had climbed to a 7.1% year-over-year change. (Figure 1) The Consumer Price Index (CPI) recorded an even higher peak of 8.9% (seasonally adjusted) in the same month. As discussed more fully below in the "Follow the Fed" section, the Federal Reserve went into action in early 2022 to curb inflation. From March 2022 to July 2023, the Fed increased the federal funds rate from near 0% to over 5%.

Figure 1 PERSONAL CONSUMPTION EXPENDITURES PRICE INDEX, ANNUAL CHANGE 1990-2023



SOURCE: EMBREY; Rice Economics, LLC; U.S. Bureau of Economic Analysis. Monthly seasonally adjusted indices through November 2023. Core PCE excludes the more volatile food and energy. Note that the PCE does not include housing.

Inflation has cooled significantly due to the Fed's tightening monetary policies. As of November, the PCE registered a 2.6 change from the prior year, and November's CPI of 3.1% year-over-year was the lowest since March 2021. Inflation should continue to moderate in 2024 although likely not stabilize as low as the Fed's target of 2%. In mid-December, the Federal Reserve Federal Open Market Committee (FOMC) members expected the PCE at 2.4% year-over-year in 2024 and then 2.1% in 2025.

FOLLOW THE FED

The Federal Reserve Bank is highly influential in shaping the U.S. economy and commercial real estate capital markets. Here are the salient objectives and actions of the Fed relating to the multifamily capital markets environment.

ROLE OF THE FEDERAL RESERVE BANK

The central bank's mandate is to promote price stability and maximum employment in the U.S.

Its chief tool to accomplish these goals is to set the overnight bank lending or federal funds rates. Annually, the Fed holds eight Federal Open Market Committee (FOMC) meetings. The federal funds rate range is reevaluated at each meeting and is held steady or reset.

More broadly, the Fed's monetary policies influence economic and investor sentiment which, in turn, impact other components of the economy, including Wall Street.

The Federal Reserve does not set prices or yields on U.S. Treasury bonds. However, the Fed buys and sells Treasuries (part of its quantitative easing/quantitative tightening strategies), thereby impacting demand for Treasury bonds, which influences their yields.

RECENT HISTORY OF FEDERAL FUNDS RATES

The Fed increased the federal funds rates 11 times between March 2022 and July 2023 to control inflation by cooling the U.S. economy and drivers of inflation.

In July 2023 the range was lifted 25 basis points to 5.25% to 5.5%, the highest level in 22 years. At the start of the hiking cycle, the range was only 0% to 0.25% (where it had been for the prior two years). At the three FOMC meetings since July (including the latest in mid-December), rates were left unchanged. The Fed has likely concluded its rate-hiking cycle.

DOOR STILL OPEN FOR RATE HIKES

Fed officials continue to advise that the door

remains open for further hikes in 2024 if necessary to tame inflation.

The Fed has also stated that it is likely that no further hikes will be needed. There is growing and widespread conviction, especially after the mid-December FOMC meeting, that the Fed will start reducing the federal funds rates in 2024. It is just a question of when.

Despite significant improvement in inflation, the Fed has stated that more progress toward its 2% target level must occur before the Fed begins to cut the federal funds rates.

FED TO START CUTTING RATES IN JUNE 2024

The Fed will likely hold rates steady at the current 5.25% to 5.5% level through most of H1 2024, making its first cut in June. (H1 2024 FOMC meetings are in January, March, May, and June.)

Some economists and business leaders believe the Fed will start cutting rates as early as March. Their assumptions are usually accompanied by forecasts of a mild recession beginning in Q1 or Q2 2024. A recession in 2024 is predicted by some economists but not the majority.

In December, the consensus 2024 outlook of FOMC members indicated three rate cuts bringing the federal funds rate down to about 4.6% by year end. However, it would not be surprising if the Fed is slightly more aggressive in reducing rates in 2024 (the latter half of 2024).

Additional rate cuts are probable for 2025. However, over the next few years, federal fund rates can be expected to remain well above the "free money" (near-zero) levels experienced through most of the post GFC to early 2022 period.

The Fed's expected monetary policy for 2024 and 2025 includes continued quantitative tightening (reducing its Treasury bond holdings). This will be a factor in bond pricing that could keep Treasury rates "higher for longer."

SNAPSHOT: CAPITAL MARKETS CLIMATE AND OUTLOOK

LATE 2020 THROUGH EARLY 2022

Very low interest rates and plentiful multifamily debt and equity capital combined with particularly strong property fundamentals led to an attractive capital markets environment.

This was a period characterized by an unprecedented level of investment activity, record financing volumes, notable asset appreciation, rising sales prices, and favorable investment returns.

MID-2022 THROUGH 2023

The capital markets environment deteriorated significantly due to rising interest rates and declining investor confidence.

Investment activity began to fall in the second half of 2022 and continued its downward trend through 2023. Debt financing became more expensive and more restrictive, asset values (realized or estimated) declined, and cap rates rose.

The past 1½-year period was a rare but distinct example of a disconnect between market fundamentals and capital markets. Despite the capital markets dislocation, the multifamily industry has enjoyed generally favorable market fundamentals fueled by sustained healthy demand.

2024

2024 will usher in renewed confidence, pricing, and capital markets activity. The industry will experience gradual recovery in the first half of 2024. Improvement will accelerate in the second half of the year and in 2025.

Specifically, we expect interest rates to remain relatively stable through the first half of 2024 and then decline in the back half of the year. However, a return to the very low rate environment of 2020 to early 2022 is unlikely.

Consequently, borrowing costs will gradually improve through 2024, especially in the second half of the year. Lenders will become less restrictive and more competitive on mortgage rates, loan structures, and proceeds.

Fueled by improving investor confidence on asset pricing and large amounts of capital sitting on the sidelines, 2024 buying activity will rise, especially in the second half of the year.

In early 2024, multifamily assets may still experience modest value deterioration, but by midyear, asset values should be rising again and cap rates falling. Even greater pricing improvement is expected in 2025.

2024 TO BRING RATE RELIEF TO TREASURIES

Treasury yields' rapid climb in 2022 and 2023 contributed significantly to multifamily's capital markets challenges. The benchmark 10-year Treasury rate fell to a multidecade low of 0.52% in August 2020, and then stayed fairly low through 2021. The 10-year shot up in 2022, rising from 1.52% at the end of 2021 to 3.88% at the end of 2022. It climbed further in 2023, peaking at 4.98% in mid-October, a 16-year high. The 10-year yield has subsided since, falling to 3.88% as of the end of December 2023, but remains elevated when compared to the low levels enjoyed through most of the post-GFC period. (Figure 2)

Figure 2 10-YEAR TREASURY BOND YIELDS, 1990-2023



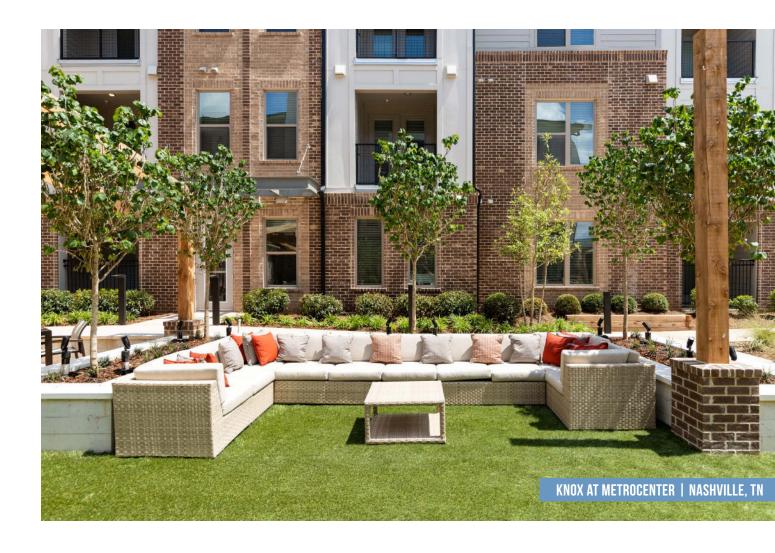
SOURCE: EMBREY; Rice Economics, LLC; U.S. Department of the Treasury. Daily rates through end of December 2023.

Rates are likely to stay "higher for longer," but not at the highs of the tightening period. Specifically, through the first half of 2024, the 10-year is likely to stay relatively stable, hovering around 4%, and then edge down in the second half to end the year in the mid 3% range. Further yield reduction may occur in 2025, but rates should remain north of 3%.

THE 10-YEAR **IS LIKELY TO END 2024 IN** THE MID 3% **RANGE**

A more rapid drop in Treasury rates in 2024 would likely occur only with a mild recession, which some economists are predicting. We do not believe that will happen. The U.S. economy should maintain positive, albeit modest, growth through 2024.

Treasury yields are not likely to fall back to very low levels due to supplydemand dynamics behind Treasury bond pricing (yields move in opposite direction to price). In 2023, the U.S. government was particularly active in issuing new Treasury bonds to help fund the substantial federal deficit and is expected to continue this path in 2024. At the same time, the Fed's quantitative tightening (selling Treasuries) and the decline in Treasury purchasing from major international buyers like China (second largest holder of U.S. Treasury bonds after Japan) have reduced demand.



CAPITAL MARKETS RECOVERY INTENSIFIES THROUGH 2024

Interest rate stabilization in H1 2024 and declines later in the year will be powerful forces for reviving multifamily's capital markets climate. Improvement will not occur overnight, but gradually through the year (especially in the second half) and into 2025. More favorable financing conditions and renewed confidence in asset pricing trends will go far to move investment capital off the sidelines, leading to greater market liquidity and asset value appreciation.

The multifamily capital markets arena is illustrated below through three significant and interconnected components: financing (cost and availability of debt), investment activity, and asset pricing.

TOUGH FINANCING CLIMATE POSITIONED FOR BETTER TIMES

Multifamily borrowers have faced significant financing headwinds over the past 1½ years, including:

- Higher borrowing costs
- More restrictive loan terms
- Less availability of debt capital

But the multifamily financing environment is positioned to improve over the course of 2024 and the following year.

2023 EXPERIENCED SUBSTANTIALLY HIGHER MORTGAGE COSTS

The rapid climb of interest rates over the past two years led to high multifamily mortgage rates. Mortgage rates are based on interest rates — comparable-year Treasuries for fixed-rate loans or SOFR for shorterterm floating-rate loans — plus a spread set by the lender to price in risk, to mitigate interest rate volatility, and to set their competitive position vis-à-vis other lenders. Given the role of spreads, mortgage rates do not move exactly with the interest rates, but the two move along very similar paths.

Mortgage rates today are substantially higher than in the recent past. Consider agency loans. The multifamily sector (versus other property types) is fortunate to have Fannie Mae and Freddie Mac; the agencies remain the largest source of debt financing for existing multifamily assets today with \$73 billion of new financing combined year to date through October. Yet even though the agencies remain active and competitive in this climate, the mortgage rate for a typical 10-year fixed-rate loan (<65% leverage) rose 210 basis points or 57% over the past seven quarters according to CBRE Capital Markets.

January 2022 3.55% - 3.85%

Mid-December 2023 5.60% - 6.00%

MORE AND BETTER PRICED DEBT **CAPITAL IS ON THE 2024 HORIZON**

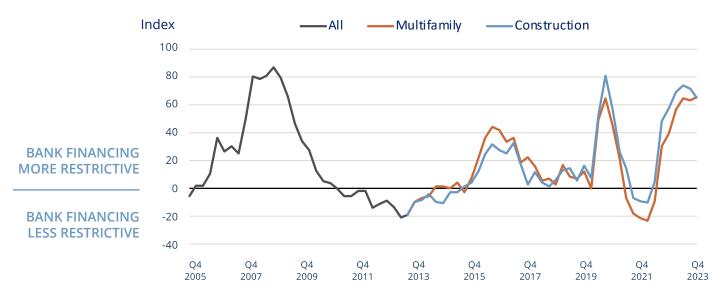
Loan refinancing in the current rate environment is expensive and often requires borrower equity infusion. So far, this precarious situation has generated only a small number of defaults, but the potential is rising especially since loan maturities are projected to rise in 2024. Loans with high loan-to-value ratios and loans underwritten from 2020 through H1 2022 are most at risk. Of course, the potential — or reality — of being underwater will continue to encourage some owners to take their assets to market, leading to acquisition opportunities.

MORE RESTRICTIVE LENDING TERMS

Debt providers have also tightened loan terms. For example, loan-to-value and loan-to-cost ratios are down considerably — reducing proceeds to borrowers — and debt-service coverage ratios are up.

More restrictive lending practices by multifamily lenders of all types are exemplified by the quarterly Federal Reserve Bank "Senior Loan Officer Opinion Survey on Bank Lending Practices." Starting with Q2 2022, bank lending standards have tightened every quarter. (Figure 3)

Figure 3 BANK LENDING CREDIT STANDARDS FOR MULTIFAMILY SECTOR



SOURCE: EMBREY; Rice Economics, LLC; Federal Reserve Bank, Senior Loan Officer Opinion Survey on Bank Lending (SLOOS) through Q4 2023 (October). Positive numbers mean that more banks are tightening credit standards (current versus three months ago). Negative figures mean that more banks are loosening standards. "All" represents all commercial real estate. Multifamily represents existing properties only. Construction represents all commercial real estate and land development.

The leading reasons for more restrictive lending standards reported in the Q4 2023 survey were uncertain economic outlook, bank funding costs, concerns about the credit quality of underlining collateral, and risk aversion. However, unlike prior eras when lenders tightened significantly, property fundamentals and loan delinquency levels were not major factors. This is certainly a silver lining. It is better to tighten credit standards due to risk aversion than for market softness.

LENDERS HAVE PULLED BACK

Multifamily borrowers still have a wide range of financing sources including agencies, life insurance companies, banks, and debt funds. The only major source of debt capital that has been mostly sitting on the sidelines in recent quarters is commercial mortgage-backed securities (CMBS), and CMBS has not been a major debt capital source for multifamily in recent years.

Still, active lenders are much more selective as to the firms and assets they finance, effectively leaving borrowers with fewer financing choices, especially limiting borrowers without good lending relationships and more marginal deals. Lower deal leverage translates into reduced proceeds for borrowers. With high mortgage rates and restrictive loan structures, many lenders have effectively priced themselves out of the market.

LOOSENING OF DEBT CAPITAL IN 2024

Multifamily financing challenges will not disappear overnight, but the climate will improve considerably in 2024, especially in the second half of the year. Lenders will gradually become more competitive and transition to less restrictive lending practices. Mortgage rates are likely to hold firm over the next quarter or two, and then inch down as Treasuries follow that course in 2024 and 2025. Mortgage rates will not return to the very low levels of the 2020-2021 period any time soon, but their moderation in 2024 will be a very positive and powerful improvement for the capital markets environment.

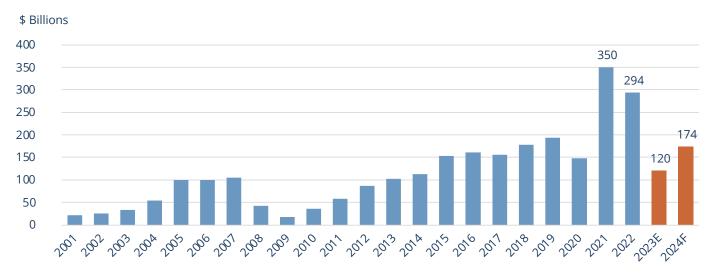


CAPITAL FLOWS INTO MULTIFAMILY WILL RISE IN 2024

Multifamily investment activity began to slow in Q3 2022 and continued trending down through 2023. The investment falloff feels particularly dramatic when compared to the record levels of the previous two years.

Through Q3 2023, the U.S. investment volume of \$88 billion was down 75% from the same period in 2022. Total 2023 investment will likely come to around \$120 billion, a 59% drop from 2022. (Figure 4)

Figure 4 HISTORICAL U.S. MULTIFAMILY INVESTMENT VOLUME



SOURCE: EMBREY; Rice Economics, LLC (forecasts); MSCI.

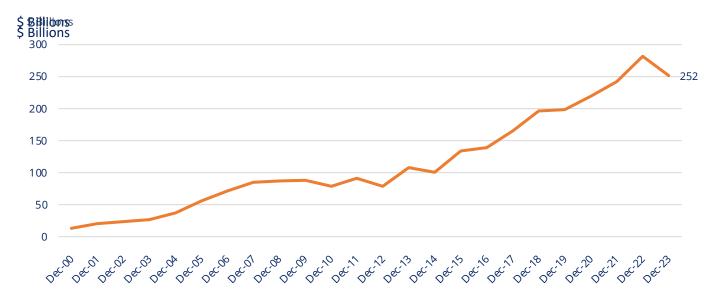
INVESTMENT ACTIVITY WILL BE SPURRED BY THE ABUNDANCE OF CAPITAL CURRENTLY SITTING ON THE SIDELINES

Multifamily sales activity should rise substantially in 2024; we estimate a 45% climb to \$174 billion. The biggest increases will occur in the back half of 2024 when the positive trends in monetary policy and capital markets have gained momentum.

In addition to the improving capital markets environment — including mounting availability of for-sale product, investment activity will be spurred by the abundance of capital currently sitting on the sidelines, waiting to move back into the marketplace. For example, institutional "dry powder" targeted for North American commercial real estate assets totaled \$252 billion as of December 2023, the second highest year-end total in the 24-year history of Pregin Ltd.'s data series. Multifamily is a key target for both institutional and noninstitutional capital. Urban Land Institute's 2024 Emerging Trends in Real Estate report placed multifamily as the top sector for investment among major property sectors. (Figure 5)

Investment activity should continue to rise in 2025 and the following year. It is difficult now to forecast a return to the phenomenal 2021-2022 levels in those years, but it could happen under the right circumstances. Multifamily's role as a favored property class will continue unabated.

Figure 5 INSTITUTIONAL "DRY POWDER" CAPITAL TARGETED FOR COMMERCIAL REAL ESTATE



SOURCE: EMBREY; Rice Economics, LLC (forecasts); Preqin, Ltd. Capital targeted for North American commercial real estate.

ASSET VALUES POSITIONED TO IMPROVE IN 2024

At the heart of the multifamily capital markets story is asset values. Market pricing and valuation trends can be quantified in many ways — there is no one perfect measurement — but asset values generally depreciated from early to mid-2022 peak levels to current levels. (Figure 6)

Most values, however, are still higher than 2020 and prepandemic pricing. The value decline has been relatively short-lived, and the 2023 downward trend is positioned to reverse in 2024.

Figure 6 SELECTED MEASURES OF U.S. MULTIFAMILY ASSET PRICE AND VALUE CHANGE

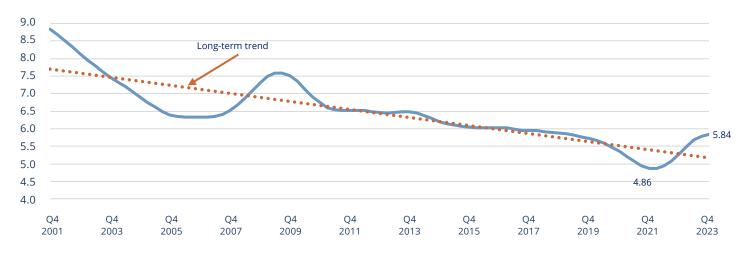
BASED ON	MEASURE	FINDINGS	SOURCE
Sales activity	Cap rate	Average cap rate rose 98 basis points from Q4 2021's low of 4.86% to 5.84% as of Q4 2023, equivalent to 20.2% value decline.	CoStar
	Sales price	Average per-unit sales price for Q4 2023 was down 7.8% from Q4 2022 and down 13.8% from the peak set in Q2 2022.	CoStar
Estimated value of assets	Property return	Returns for institutionally owned apartments were down 7.5% year over year as of Q3 2023. Income portion of the annual return was up 3.9% while appreciation was down 11.1%.	National Council of Real Estate Investment Fiduciaries (NCREIF)
	CPPI	RCA Commercial Property Price Index fell 12.1% year over year as of November.	MSCI
	СРРІ	GSA's CPPI, based on REIT-owned properties, fell 30% from its peak in March 2022 to November 2023. Year over year, the Index was down 12%.	Green Street Advisors

SHORT-TERM VALUE DECLINE MATTERS LESS FOR LONG-TERM HOLDERS

For longer-term holders, value changes are less important than for prospective sellers. Most multifamily owners do not need to sell assets when the pricing environment is uncertain or unfavorable. However, many owners have made internal downward adjustments to their property values over the past year.

It is also important to recognize longer-term pricing trends, which have been extremely positive for the multifamily industry. Most assets acquired before early 2020 have achieved considerable appreciation. For example, Q4's average cap rate of 5.84% is lower than all history before Q1 2019 (Figure 7) and the November 2023 RCA CPPI is up 28.3% from five years ago and 110.5% from 10 years ago.

Figure 7 HISTORICAL U.S. MULTIFAMILY CAP RATES



SOURCE: EMBREY; Rice Economics, LLC; CoStar. Cap rates for all classes of multifamily properties.

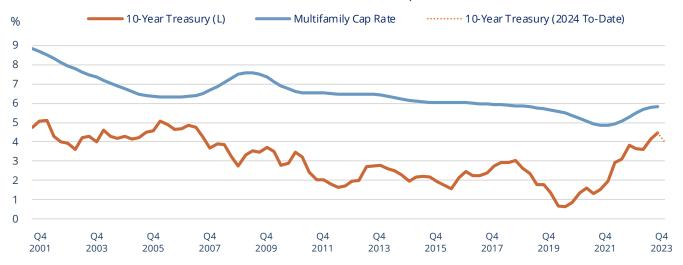
COMPARING TODAY'S VALUES ONLY AGAINST THE HIGHS OF THE 2021-2022 PERIOD OVEREMPHASIZES THE RECENT DOWNSIDE AND UNDEREMPHASIZES THE LONGER-TERM VALUE **GAINS ACHIEVED**

INVESTMENT APPETITE IS CHIEF DRIVER OF PRICE; HIGHER VALUES EXPECTED IN 2024

Multifamily asset values are determined by many forces. The most powerful is buying activity. The hot investment climate of 2021 and H1 2022 led to significant increases in sales prices and asset values. Conversely reduced sales activity over the past year contributed significantly to the drop in sales prices and asset values.

Interest rates also influence multifamily pricing. Cap rates and interest rates trend along the same path generally, but are not totally correlated, due largely to changing levels of competition in the marketplace for multifamily assets and due to the longer-term holds of multifamily assets. (Figure 8)

Figure 8 10-YEAR TREASURY YIELDS AND MULTIFAMILY CAP RATES, 2001-2023



SOURCE: EMBREY; Rice Economics, LLC; U.S. Department of the Treasury; CoStar. Both series are quarter averages.

We expect a modest expansion of multifamily cap rates in early 2024, and therefore a modest decline in pricing and valuations. The stable, but still high interest rate environment combined with only moderate investment activity will keep prices from rising in H1 2024. Moreover, as the bid-ask gap narrows in the early stages of the investment recovery period, there will likely be more adjustment by sellers.

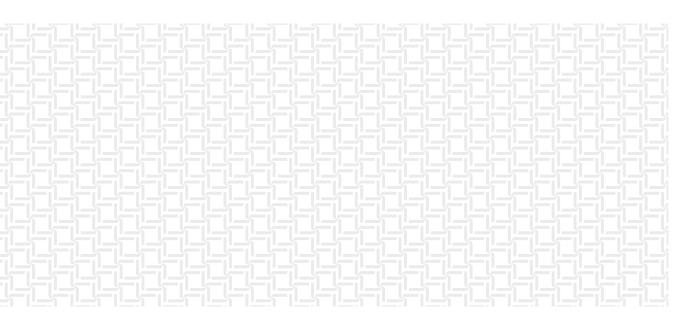
Sales pricing and value trends should turn positive by midyear 2024. The second half of 2024 will experience steady upward movement, and full value recovery is likely by late 2025 or early 2026. There is, however, a good chance that the pace of pricing recovery will surprise us on the upside given the amount of capital sitting on the sidelines and the potential for investment activity to sharply accelerate from current levels.

HEADING TO A MORE FAVORABLE CAPITAL MARKETS CLIMATE

The past 1½ years have been difficult for the U.S. multifamily capital markets. Higher interest rates, higher borrowing costs, declining investment activity, and lower asset values have all contributed to the challenging environment, despite generally favorable multifamily property performance.

These difficult trends are on the precipice of reversing to much more favorable conditions. 2024 will usher in considerable improvement for all aspects of multifamily capital markets, especially in the second half of the year. Improvement should accelerate further in 2025.

Confidence in obtaining favorable returns from owning, developing, financing, buying, and selling multifamily properties will rise considerably as the capital markets environment improves in 2024 and 2025. The healthier capital markets environment — combined with multifamily's favorable long-term market fundamentals due to sustained levels of robust demand — will further solidify the sector's position as a much-favored asset type and investment vehicle.





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Ms. Rice is one of the country's leading multifamily economists. She is the founder of Rice Economics, LLC, a consulting firm providing real estate economics and business consulting for commercial real estate firms.

Before Rice Economics, LLC, Ms. Rice was Americas Head of Multifamily Research for CBRE, the largest multifamily debt and equity intermediary in the U.S. At CBRE, Ms. Rice covered nearly all aspects of the U.S. multifamily property and capital markets. She was a frequent speaker at industry events and wrote hundreds of white papers and research briefs on the sector. Her more notable white papers included: The Case for Workforce Housing; The Single-Family Built-to-Rent Housing Sector; The Way Forward – Path to Urban Multifamily Recovery; Global Outlook 2030 – Multifamily; and U.S. Multifamily Primer for Offshore Investors.

Ms. Rice began her career in the multifamily sector. One of her first positions was with EMBREY Investments where she conducted feasibility analysis for prospective developments and provided investment strategies for EMBREY's geographic expansion in the 1980s. Following EMBREY, Ms. Rice held research leadership positions with HFF (now part of JLL), Lend Lease Real Estate Investments, Crescent Real Estate Equities, and Verde Realty.

Ms. Rice has been involved with many professional organizations through her 40-year career. In particular, she has been active with the National Multifamily Housing Council for many years. She is a Counselor of Real Estate and has held numerous leadership positions with the Counselors of Real Estate organization. Ms. Rice currently serves as an advisor to the TCU Center for Real Estate.

Ms. Rice earned a B.A. in history from the University of Washington and M.A. in urban geography from Queen's University in Canada. She also completed two years of graduate coursework in urban geography at The University of Chicago. Ms. Rice is a 40-year Texas resident, currently living in Fort Worth.

YEARS IN BUSINESS

CURRENT ANNUAL DEVELOPMENT PRODUCTION

UNITS UNDER MANAGEMENT

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