Real Estate in a Rising Interest Rate Environment

July 2022

OVERVIEW

- **Real estate can play an important role in diversified portfolios by acting as a hedge against rising prices.**
- **However, like other income producing asset classes, rising interest rates can put downward pressure on real estate valuations.**
- **Can real estate offer investors inflation protection if the Federal Reserve continues to raise rates to combat higher prices?**

Background

Real estate historically acts as a strong hedge against inflation, as higher replacement costs can push asset values higher. During periods of economic growth, property owners in sectors with pricing power may also increase rents, which can grow net operating income (NOI). However, similar to other income producing investments, rising interest rates pose a threat to real estate prices as investors evaluate the relative value of real estate to other asset classes. How much of an impact can rising interest rates have on real estate values and what can investors do to mitigate those risks?

Impact of Rising Rates on Real Estate Values

The capitalization rate (cap rate) in real estate investing is the unlevered rate of return on an asset based on its annual NOI and is widely used in determining the value of a property.

Cap Rate = **Net Operating Income** ÷ **Asset Value**

Similar to the earnings yield of a stock or bond, the lower the cap rate, the higher the valuation. While the correlation between the 10-year UST and cap rates is imperfect, the two tend to move in the same direction over time, meaning higher interest rates can lead to lower real estate prices. All else equal, a 50 bps increase in cap rates equates to roughly an 11% drop in the value of a property. However, higher NOI can counteract the negative valuation impacts of higher cap rates as a higher numerator can offset a higher denominator in the formula above. The most important factors that influence NOI growth include tenant demand, lease term duration, and expense control. Generally speaking, properties with high demand relative to supply, short lease terms, and minimal operating expenses and capital expenditures tend to have the highest NOI growth potential.

NOI Growth Required to Offset Cap Rate Increases

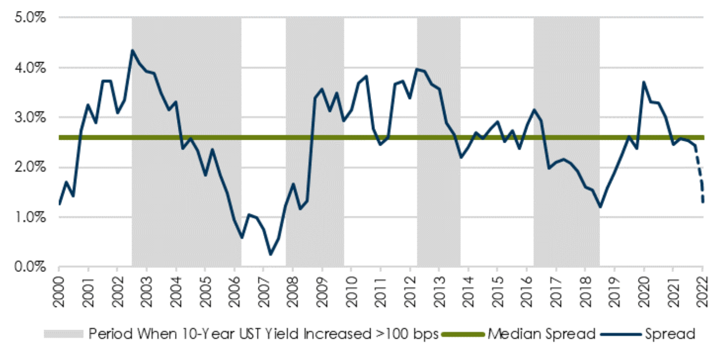
Cap Rate Increase	Starting Cap Rate				
	3.00%	3.50%	4.00%	4.50%	5.00%
0.25%	8.3%	7.1%	6.3%	5.6%	5.0%
0.50%	16.7%	14.3%	12.5%	11.1%	10.0%
0.75%	25.0%	21.4%	18.8%	16.7%	15.0%
1.00%	33.3%	28.6%	25.0%	22.2%	20.0%

Source: AEW, ACG Research

Cap Rate Spreads

The spread between cap rates and interest rates is often used to determine relative value. Generally speaking, when spreads tighten, real estate becomes less attractive. However, economic conditions and real estate fundamentals tend to influence spreads more than changing interest rates. If economic growth is strong and unemployment is low, real estate owners typically maintain enough pricing power to raise rents, which helps offset the negative impact of higher rates. The same is true when the rental demand for an asset is higher than supply. The prospect of higher income growth can help justify lower spreads, even when interest rates are rising. This makes asset selection increasingly important when investing in a rising rate environment.

Cap Rate and Treasury Yield Spread



Source: NCREIF, ACG Research

Real Estate Performance During Rising Rates

During the last eight rate hike cycles since 1985, cap rates have compressed the same number of times that they have expanded. The only rising rate period where core real estate delivered a negative return was during the Global Financial Crisis when cap rates expanded and low tenant demand led to negative NOI growth. Even when cap rates rise, strong NOI growth can counteract negative valuation adjustments, leading to positive real estate performance.

Periods When 10-Year UST Yield Increased 100+ bps	Change in 10-Year UST Yield	Change in NPI Cap Rate	Aggregate ODCE Return	NOI Growth
Jan 1987 to Sep 1987	2.4%	0.2%	5.2%	0.5%
Oct 1993 to Dec 1994	2.4%	1.2%	6.2%	2.4%
Jan 1996 to Mar 1997	1.3%	0.1%	16.4%	3.9%
Oct 1998 to Dec 1999	2.0%	-0.3%	14.0%	6.7%
Oct 2002 to Jun 2006	1.5%	-2.2%	61.5%	14.4%
Jan 2008 to Dec 2009	1.6%	1.1%	-37.1%	-10.7%
Jul 2012 to Dec 2013	1.4%	-0.4%	19.8%	5.7%
Jul 2016 to Sep 2018	1.6%	-0.4%	19.4%	10.0%

Source: Bloomberg, CoStar, ACG Research

Conclusion

While rising rates can have a negative impact on real estate valuations through cap rate expansion, economic fundamentals tend to be the most important factor influencing real estate pricing over time. NOI growth is required to offset the adverse effects of higher cap rates, and favorable supply/demand dynamics can create the necessary pricing power for real estate owners to increase rents as interest rates rise. Property type and asset selection become increasingly important as properties with long-dated lease terms without sufficient rent escalations will be more exposed to duration in a rising rate environment, making them less attractive as a hedge against inflation.

Disclosures and Legal Notice

The views expressed herein are those of Asset Consulting Group (ACG). They are subject to change at any time. These views do not necessarily reflect the opinions of any other firm.

This report was prepared by ACG for you at your request. Although the information presented herein has been obtained from and is based upon sources ACG believes to be reliable, no representation or warranty, express or implied, is made as to the accuracy or completeness of that information. Accordingly, ACG does not itself endorse or guarantee, and does not itself assume liability whatsoever for, the accuracy or reliability of any third party data or the financial information contained herein.

Certain information herein constitutes forward-looking statements, which can be identified by the use of terms such as "may", "will", "expect", "anticipate", "project", "estimate", or any variations thereof. As a result of various uncertainties and actual events, including those discussed herein, actual results or performance of a particular investment strategy may differ materially from those reflected or contemplated in such forward-looking statements. As a result, you should not rely on such forward-looking statements in making investment decisions. ACG has no duty to update or amend such forward-looking statements.

The information presented herein is for informational purposes only and is not intended as an offer to sell or the solicitation of an offer to purchase a security.

Please be aware that there are inherent limitations to all financial models, including Monte Carlo Simulations. Monte Carlo Simulations are a tool used to analyze a range of possible outcomes and assist in making educated asset allocation decisions. Monte Carlo Simulations cannot predict the future or eliminate investment risk. The output of the Monte Carlo Simulation is based on ACG's capital market assumptions that are derived from proprietary models based upon well-recognized financial principles and reasonable estimates about relevant future market conditions. Capital market assumptions based on other models or different estimates may yield different results. ACG expressly disclaims any responsibility for (i) the accuracy of the simulated probability distributions or the assumptions used in deriving the probability distributions, (ii) any errors or omissions in computing or disseminating the probability distributions and (iii) and any reliance on or uses to which the probability distributions are put.

The projections or other information generated by ACG regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. Judgments and approximations are a necessary and integral part of constructing projected returns. Any estimate of what could have been an investment strategy's performance is likely to differ from what the strategy would actually have yielded had it been in existence during the relevant period. The source and use of data and the arithmetic operations used for calculating projected returns may be incorrect, inappropriate, flawed or otherwise deficient.

Past performance is not indicative of future results. Given the inherent volatility of the securities markets, you should not assume that your investments will experience returns comparable to those shown in the analysis contained in this report. For example, market and economic conditions may change in the future producing materially different results than those shown included in the analysis contained in this report. Any comparison to an index is for comparative purposes only. An investment cannot be made directly into an index. Indices are unmanaged and do not reflect the deduction of advisory fees.

This report is distributed with the understanding that it is not rendering accounting, legal or tax advice. Please consult your legal or tax advisor concerning such matters. No assurance can be given that the investment objectives described herein will be achieved and investment results may vary substantially on a quarterly, annual or other periodic basis. There is no representation or warranty as to the current accuracy of, nor liability for, decisions based on such information.