What History Tells Us About
REITs, Inflation
and Rising Rates

Tom Bohjalian, Executive Vice President and Portfolio Manager

Since the financial crisis, central banks have injected massive monetary stimulus into the global economy. This so-called quantitative easing—intended to spur growth and avoid the onset of deep and widespread recession—has led to the massive expansion of developed-economy balance sheets.

So far, these trends have not driven inflation higher, given the counterbalancing effects of weak loan demand, persistently high unemployment and below-average capacity utilization. However, the day will come when loan demand returns, interest rates move higher and the specter of inflation returns. This outcome may not be an immediate concern, but it begs the question of how asset classes perform in this type of environment. In this Viewpoint, we examine the historical performance of Real Estate Investment Trusts (REITs) in periods of rising interest rates and inflation.
Executive Summary

At this point, there is little evidence of rising inflation in most developed economies. But many economists acknowledge that both inflation and interest rates will move higher as the next growth cycle unfolds and quantitative easing is withdrawn. One way to prepare for this outcome is to allocate a portion of assets to real asset strategies. REITs offer one such choice, given their historical ability to perform in both rising-rate and inflationary environments.

In this Viewpoint, we tackle common misconceptions about REITs and explore the historical relationships among REITs, rising rates and inflation. Our key takeaways are as follows:

• Contrary to a common misconception, rising interest rates do not necessarily lead to poor REIT performance. In fact, REITs have generated an annual return of 12.6% over the six monetary tightening cycles that have occurred since 1979. Over an equal number of periods when U.S. Treasury yields were rising, REITs generated an annual return of 10.8%.(1)

• Capitalization rates (cap rates) do not move in tandem with interest rates. In fact, our research shows only a minimal historical linkage between U.S. cap rates and increases to both the federal funds rate and the yields of U.S. Treasury securities.(2) In our view, cap rates and real estate values are far more tied to economic growth expectations and credit spreads relative to U.S. corporate bonds.

• U.S. REITs can be effective as a hedge against inflation. U.S. REITs have outperformed stocks and bonds in periods of both rising and moderating inflation. With varying degrees of cyclicalality across property sectors—and a long history of dividend growth at a pace faster than that of inflation—U.S. REITs have proven to be, and should continue to be viewed as, an effective inflation hedge.

(1) Returns, which were obtained from Bloomberg as of December 31, 2012, were time-weighted.
(2) See Page 5 for a definition and more detailed discussion of cap rates.
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U.S. REITs Have Outperformed in Periods of Rising Rates

Although rising interest rates can impact real estate values and the performance of REITs, higher interest rates do not necessarily lead to poor REIT performance. Not only have REITs outperformed stocks and bonds over the long term, but this asset class has generated solid performance in periods when the U.S. Federal Reserve (the Fed) was pushing the federal funds rate higher or U.S. Treasury yields were rising. These trends are illustrated in Exhibits 1a and 1b below. As background, the first of the past six rate hikes in the benchmark U.S. federal funds rate occurred in early 1979, as part of the Fed’s initiative to tamp down high inflation. From that point forward through the end of 2012, there were also six periods in which U.S. Treasury yields rose significantly, albeit within some different timeframes.

Exhibit 1a: 135 Months of Rising 10-Year U.S. Treasury Yields
January 1979–December 2012

Cumulative Returns

<table>
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<th>56.5</th>
<th>38.3</th>
<th>4.2</th>
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<tr>
<td>REITs(a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stocks(b)</td>
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<tr>
<td>Bonds(c)</td>
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</table>

Between 1979 and 2012, 10-Year U.S. Treasury Yields were rising 35% of the time.

Exhibit 1b: 95 Months of Rising Federal Funds Rate
January 1979–December 2012

Cumulative Returns

<table>
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<tr>
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<th>31.2</th>
<th>11.7</th>
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<tbody>
<tr>
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<tr>
<td>Stocks(b)</td>
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</table>

Between 1979 and 2012, the Federal Funds Rate was rising 24% of the time.

The Real-Assets Pricing Power of Commercial Real Estate

Like other real asset categories, commercial real estate has the pricing power to pass along rising costs by raising rents in periods when interest rates are rising or inflation is moving higher. Moreover, the values of tangible assets like land and buildings tend to rise over time. These factors point to the attractive performance potential of REITs in inflationary environments.

The most recent period of monetary tightening spanned the period from June 2004 through June 2006. REITs performed especially well in this period, relative to stocks and bonds. The federal funds rate was hiked 17 times over the two-year period, from the post-recession lows of 1.00% to 5.00%. The cumulative return of REITs in this period was 57.9%, compared with just 15.5% for stocks.

These results are consistent with our view that real estate fundamentals and the overall strength of the economy have a greater impact on the performance of REITs than the trajectory of interest rates. While the Federal Reserve was aggressively tightening monetary policy in an effort to quell inflation, 2004–2006 was also a period of steady economic growth, moderate real estate demand and low levels of new supply coming on the market. In our view, history could very well repeat itself over the next monetary tightening cycle.

June 2004–June 2006
Fed Funds Rate: 1.00% to 5.00%
10-Year Treasury Yield: 4.7% to 5.1%
U.S. GDP: $11.5T to $13.4T

Exhibit 2: REITs Outperformed Stocks During the Last Monetary Tightening Period
Cumulative Total Returns, June 2004–June 2006

Source: Bloomberg, Cohen & Steers.

* Indexed to 100.

Performance data quoted represents past performance. Past performance is no guarantee of future results. The information presented above does not reflect the performance of any fund or other account managed or serviced by Cohen & Steers, and there is no guarantee that investors will experience the type of performance reflected above. There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend will begin. An investor cannot invest directly in an index and index performance does not reflect the deduction of any fees, expenses or taxes.

(a) Federal Funds are the interest rates depository institutions charge to other depository institutions. (b) REITs represented by the FTSE NAREIT Equity REIT Index. (c) Stocks represented by the Standard & Poor’s 500 Index (S&P 500). See index definitions on page 11.
Cap rates declined in the past four cycles of monetary tightening and periods of rising Treasury yields.

Cap Rates Do not Move in Tandem with Interest Rates

The valuation of commercial real estate is often expressed using capitalization rates (or cap rates)—the unleveraged initial return that a buyer of commercial property expects, expressed as a percentage of the purchase price. Cap rates are akin to the operating income yields of public companies. For example, paying $1 million for a property with a 6.0% cap rate should produce an unleveraged return on the investment of $60,000 over the first full year of operations.

Analyzing the historical movements of cap rates in periods of rising interest rates can provide insights into the economic sensitivity of real estate performance. Rising U.S. Treasury yields and tighter monetary policy typically reflect a recovering economy and a rebound in inflation expectations. History shows that cap rates decline and real estate values rise in these periods. We attribute this performance to the market’s perception that these conditions will drive cash-flow growth realized from increasing rents and rising occupancies.

### Exhibit 3: U.S. Cap Rates Not Linked to Risk-Free Rates

<table>
<thead>
<tr>
<th>Cap rates declined during Fed tightening periods</th>
<th>Cumulative Changes (bps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periods of Fed Fund Rate Hikes</td>
<td>Fed Funds Rate</td>
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<tr>
<td>2/4/94–2/1/95</td>
<td>267</td>
</tr>
<tr>
<td>6/30/99–5/16/00</td>
<td>128</td>
</tr>
<tr>
<td>6/30/04–6/30/06</td>
<td>373</td>
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</table>

<table>
<thead>
<tr>
<th>Cap rates declined during rising yield periods</th>
<th>Cumulative Changes (bps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periods of Rising U.S. Treasury Yields</td>
<td>10-Yr. Treasury Yield</td>
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<tr>
<td>8/29/86–10/16/87</td>
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<td>204</td>
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<tr>
<td>6/13/03–6/12/07</td>
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</table>


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(a) Risk-free rates are represented by 10-year U.S. Treasury notes, which are backed by the full faith of the U.S. government.

This economic sensitivity can also be observed in credit-sensitive rates, such as Baa corporate bond yields, which reflect credit spreads that move inversely to risk-free rates. If inflation were to rise, it is likely that cap rates would fall below Baa corporate bond yields, as they did in the higher inflation regimes seen prior to the early 1990s. In these periods, real estate investors accepted a lower cap rate on properties with the expectation that inflation would lead to cash-flow growth from increasing rents and rising occupancies.

From a U.S. REIT valuation perspective, the current 120-basis-point spread between cap rates (at 6.0%) and Baa corporate bond yields (at 4.8%) is above the long-term average of +20 basis points, as shown in Exhibit 4 on the next page.
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Exhibit 4: U.S. Capitalization Rates vs. Corporate Bond Yields

At February 28, 2013. Source: Green Street Advisors.

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(a) Moody’s Baa Corporate Bond Yields (yield to maturity).

U.S. REITs Can Be an Effective Hedge Against Inflation

With respect to inflation, the historical returns from commercial real estate properties have been highly correlated with changes in the Consumer Price Index (CPI). This has been especially true when the CPI is unusually elevated. Exhibit 5 tracks this relationship, pairing the one-year returns of the NCREIF Property Index with year-over-year changes in the CPI from 1979–2012.

Commercial real estate returns are highly correlated with changes in the CPI, especially when this measure is elevated.
The higher the inflation rate, the higher the correlation with real estate returns. Exhibit 6 separates these observations into two broad periods, highlighting further how correlations tend to rise during periods of higher inflation. Note that the correlation between real estate and inflation was much higher in the 1970s and 1980s, when year-over-year inflation was rising on average by 6.2%. However, this relationship waned considerably in the 1990s, as inflation decreased to 2.7% on average.

Exhibit 6: U.S. Real Estate Returns and Inflation
Relationship Stronger in Infltionary Environment...
Not So Much in a Less Inflationary Period

Real estate and inflation were more correlated from 1978–1990 when inflation increased by 6.2% on average.

Real estate and inflation have been less correlated since 1991, with inflation at 2.6% on average.

At December 31, 2012. Source: NCREIF, Bloomberg, ISI Group. Quarterly data. Correlation computed on a year-over-year basis. Performance data quoted represents past performance. Past performance is no guarantee of future results. The information presented above does not reflect the performance of any fund or other account managed or serviced by Cohen & Steers, and there is no guarantee that investors will experience the type of performance reflected above. An investor cannot invest directly in an index and index performance does not reflect the deduction of any fees, expenses or taxes. There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend will begin.
Recently, Cohen & Steers conducted an in-depth analysis of the long-term performance of REITs and other asset classes in various inflationary regimes. From this analysis, which spanned inflationary cycles from December 1974 through December 2012, we drew a number of conclusions. As a group, REITs outperformed stocks and bonds in periods of both rising and falling inflation. The time-weighted annual returns for REITs over periods of rising inflation were 8.5%, compared with 7.9% for stocks and 4.7% for bonds. REITs also outperformed in periods of moderating inflation, with time-weighted annual returns of 21.6%, compared with 15.8% for stocks and 12.3% for bonds.

Since 1974, REIT performance has been positive in 4 out of 7 periods of flat-to-rising inflation and 7 out of 8 periods of easing inflation.

REITs have demonstrated the ability to perform in periods when inflation is rising or easing.
Some property sectors are more cyclical than others. History also tells us that U.S. REITs, as a broad group, participate with the economy as it expands. Those with highly cyclical (economically sensitive) assets and shorter lease terms tend to reflect this improvement more quickly. As shown in Exhibit 8, the three sectors with the greatest economic sensitivity are hotels, apartments and storage facilities. These property types also tend to have the shortest lease terms, which means that property cash flow values can be marked to market more frequently and will consequently see values change more quickly. As a result, they more rapidly reflect revenue growth and tend to outperform during periods of economic expansion.

- Hotels are highly cyclical due to their nightly leases, as room rates and occupancies can change swiftly with economic conditions.
- Apartment REITs are largely cyclical, as profitability is tied to employment rates. Demand for apartments also tends to rise as mortgage rates move higher on residential properties.
- Self-storage lease terms are relatively short, which gives self-storage companies strong pricing power, which is the ability to raise prices in periods of economic expansion.

Highly cyclical sectors with shorter lease periods typically outperform when the economy is expanding.
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The Important Role of Dividend Growth

Investors seeking growing dividends as a way to contend with inflation should find REITs relatively attractive. In fact, the year-over-year growth in REIT dividends from 1987 through 2012 exceeded the rate of inflation in 20 out of 26 years. As shown in Exhibit 9, the compound average growth rate of REIT dividends was 6.5% over this time period, compared with 2.9% for CPI inflation. This above-trend growth has made REITs attractive during periods of rising inflation.

Exhibit 9: Cumulative REIT Dividend and CPI Growth
December 1987 Through December 2012

REIT Dividend Growth
CPI Inflation


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Conclusion

Throughout this Viewpoint, we have highlighted the ability of REITs to perform in an inflationary environment and in periods of higher interest rates. In part, we attribute these results to the close ties in their performance to improving economic conditions and real estate fundamentals. Our analysis finds no historical linkage between the cap rates used to value real estate and movements in risk-free interest rates.

We have also illustrated the ability of REITs to outperform stocks and bonds in periods of both rising and moderating inflation. With varying degrees of cyclical activity across property sectors, and a long history of dividend growth at a pace faster than that of inflation, REITs have proven to be an effective inflation hedge. In our view, this will hold true as the next cycle takes shape.

(1) Returns for REIT dividends and inflation are as of December 31, 2012 and are based on yearly data provided by NAREIT (REIT Dividend Growth) and U.S. Department of Labor (Consumer Price Index).
The views and opinions in the preceding commentary are as of the date of publication and are subject to change. This material represents an assessment of the market environment at a specific point in time, should not be relied upon as investment advice, is not intended to predict or depict performance of any investment and does not constitute a recommendation or an offer for a particular security. We consider the information in this presentation to be accurate, but we do not represent that it is complete or should be relied upon as the sole source of suitability for investment.

Performance data quoted represents past performance. Past performance is no guarantee of future results. There is no guarantee that any historical trend illustrated herein will be repeated in the future, and there is no way to predict precisely when such a trend will begin. There is no guarantee that a market forecast made in this commentary will be realized.

Risks of investing in real estate securities include falling property values due to increasing vacancies, declining rents resulting from economic, legal, tax, political or technological developments, lack of liquidity, limited diversification and sensitivity to certain economic factors such as interest rate changes and market recessions. The risks of investing in REITs are similar to those associated with direct investments in real estate securities. Foreign securities involve special risks, including currency fluctuations, lower liquidity, political and economic uncertainties, and differences in accounting standards. Some international securities may represent small- and medium-sized companies, which may be more susceptible to price volatility and less liquidity than larger companies.

This commentary must be accompanied by the most recent Cohen & Steers fund fact sheets if used in connection with the sale of mutual fund shares.

Methodology for Exhibit 7

Returns over the study period are compound annual returns; annual returns over rising and easing inflation are time-weighted. Periods of rising and easing inflation were based on the percentage change in year-over-year CPI. Prior to 12/1982, regimes were defined by absolute levels of 2%, 4%, and 6%. From 1/1983 to 12/1997 and 1/1998 to 12/2012 regimes were defined by standard deviation from the period mean. Our inflationary regimes were defined as follows: Hyperinflation: Above 6% year over year. High Inflation: Between 4% and 6% year over year. Normal Inflation: Between 2% and 4% year over year. Low Inflation: When the annual year-over-year change of CPI was below 2%. From December 1974–December 2012, there were six periods of rising inflation, seven of easing inflation and one that was relatively flat.

Index Definitions

Investors cannot invest directly in an index, and index performance does not reflect the deduction of any fees, expenses or taxes.
Barclays Capital U.S. Aggregate Bond Index (formerly the Lehman Brothers U.S. Aggregate Bond Index) is an index of the U.S. investment-grade fixed-rate bond market, including both government and corporate bonds.

FTSE NAREIT Equity REIT Index is an unmanaged, market-capitalization-weighted index of all publicly traded U.S. REITs that invest predominantly in the equity ownership of real estate, not including timber and infrastructure.

NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only.

S&P 500 Index is an unmanaged index of 500 large-capitalization, publicly traded U.S. stocks representing a variety of industries.

The U.S. Federal Reserve 10-Year Treasury Constant Maturity Rate is published by the Federal Reserve Board based on average yield of a range of treasury securities, all adjusted to the equivalent of a 10-year maturity. Yields on Treasury securities at constant maturity determined by the U.S. Treasury from the daily yield curve.

About Cohen & Steers

Founded in 1986, Cohen & Steers is a leading global investment manager with a long history of innovation and a focus on real assets, including real estate, infrastructure and commodities. Headquartered in New York City, with offices in London, Hong Kong, Tokyo and Seattle, Cohen & Steers serves institutional and individual investors around the world.

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