The effect of interest rates on listed real estate

One primary consideration of investors looking to make an allocation to listed real estate via real estate investment trusts (REITs) today is the impact that a rising-rate environment has on the relative performance of REITs vs. other broader asset classes. The purpose of this paper is to discuss how REITs have historically performed in different interest-rate environments, where we are today, and what we can expect going forward. We will also discuss the role of REITs in a portfolio as part of a comprehensive investment strategy.

Outline

1 | Where we’ve been. Some investors may be surprised to learn that REITs have performed relatively well during periods of rising rates, and that REITs have meaningfully outperformed both traditional equities and bonds the year after a rise in interest rates.

2 | Where we are today. We have just completed another one-year period following a rise in rates, and history has repeated itself (or at least rhymed): REITs outperformed stocks and bonds in 2014.

3 | Where we’re going. In our opinion, REITs should perform relatively well going forward as future increases in rates should be at least somewhat related to economic growth and inflation expectations while real-estate fundamentals remains strong across most markets and most property types.

4 | Strategic long-term allocation to REITs. There are a number of long-term reasons to invest in REITs, including access to real estate, low correlations to other asset classes, income potential, attractive total return potential, inflation protection and liquidity.

1. Where we’ve been.

Before we try to understand where we are today and what to expect going forward, let’s look at how REITs have historically performed in rising-rate environments.

Our historical analysis of REITs in rising-rate environments provided mixed results with little evidence that a change in rates is always a direct indicator of how REITs will perform relative to equities and fixed income. We found that REITs have historically performed relatively well in a steady rising-rate environment, but struggled when rates increased rapidly in the short term, as we saw in the middle of 2013. Generally, however, as Figure 1 illustrates, REITs performed somewhere between equities and bonds during periods in which rates rose, then outperformed by a wide margin the following year. Figure 2 provides additional historical data.

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From 1993 to 2014, there have been 13 periods in which interest rates (as measured by the 10-year U.S. Treasury) have been in a “rising” environment. The average time span was 196 days, and the average interest-rate rise was 150 basis points (bps). U.S. REITs returned an average of 2.8% during these rising-rate periods, while equities returned 10.0%, and bonds returned –2.7%, on average. This data supports the view of REITs as hybrid investment vehicles: bond-like in their potential to provide income, equity-like in their potential to provide capital appreciation.

Note that although REIT prices are dictated by several unique fundamental and economic factors, the level of interest rates is one factor that has the potential to impact all REIT stocks in some manner due to REITs’ reliance on capital markets to finance current and future growth opportunities. While REITs have tended to underperform equities when interest rates have risen (on average) there were five times during the 13 aforementioned periods in which REITs actually outperformed equities.

While REITs performed between equities and bonds in rising-rate environments, it may be surprising to some investors to see how clearly REITs generally outperformed both asset classes during the following year. Over the past 13 rising-rate periods, the following one-year return for REITs averaged roughly 16%. During this same time, both equities and bonds returned roughly 10%, on average, leading REITs to outperform both asset classes by roughly 600 basis points. As Figure 3 illustrates, the one-year period following a rising-interest-rate period can be characterized...
as a strong performance environment for REITs relative to equities and bonds. Looking at the data on a year-by-year basis, REITs outperformed equities in the year following a rising-rate period in seven out of the 13 periods, and outperformed bonds in nine out of the 13 periods.

2. Where are we today

As many market participants are keenly aware, REITs experienced two dramatically different periods of performance over the course of 2013 and 2014.

U.S. REITs started 2013 in strong fashion, but quickly changed course in late May after the U.S. Federal Reserve Board (Fed) discussed its plans regarding the future of quantitative easing (QE). From May 2013 to December 2013, U.S. REITs fell 11% while equities rose 17%. Over this same 243-day time period, the 10-year U.S. Treasury yield increased 140 bps. Of somewhat more importance, inflation expectations were benign during this time, and were actually lower. Thus, this rise in interest rates was solely an increase in real yields. In the short term, this type of environment is not favorable for REITs—that is, a rise in interest rates without increasing inflation presents a short-lived headwind for REITs. Not all real-estate sectors performed the same, however. Sectors that generally offer longer lease terms (such as health care) were hit harder than those offering shorter lease terms (such as hotels and self storage). Despite this, one thing worth noting is that REITs ended calendar-year 2013 up 2.5% overall.

Moving on to 2014, many market participants had expected interest rates to remain somewhat elevated, or even steadily increase, throughout the course of the year. Instead, interest rates actually declined by 86 bps. Over this same period, inflation expectations also declined by 55 bps. This decrease in interest rates helped propel a rally across risk assets for the majority of the year, with equities up 13.7% in 2014. Meanwhile, REITs surged 30.1%, outperforming equities by nearly 17 percentage points and bonds by 24 percentage points, as shown in Figure 4. As previously discussed, this type of performance for REITs relative to equities and bonds is generally consistent with what has occurred historically.

![Figure 3: Average performance in the year following rising-rate periods](https://via.placeholder.com/150)

<table>
<thead>
<tr>
<th>Rising-rate period</th>
<th>Following one-year period</th>
<th>10-year U.S. Treasury change in following period (in bps)</th>
<th>REITs</th>
<th>Equities</th>
<th>Difference</th>
<th>Bonds</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/15/93–11/7/94</td>
<td>11/7/94–11/7/95</td>
<td>–205</td>
<td>12.2%</td>
<td>30.0%</td>
<td>–17.7%</td>
<td>17.1%</td>
<td>–4.9%</td>
</tr>
<tr>
<td>1/18/96–6/12/96</td>
<td>6/12/96–6/12/97</td>
<td>–58</td>
<td>29.3%</td>
<td>34.8%</td>
<td>–5.5%</td>
<td>10.0%</td>
<td>19.3%</td>
</tr>
<tr>
<td>11/29/96–4/14/97</td>
<td>4/14/97–4/14/98</td>
<td>–137</td>
<td>18.9%</td>
<td>52.6%</td>
<td>–33.7%</td>
<td>12.4%</td>
<td>6.5%</td>
</tr>
<tr>
<td>10/5/98–1/20/00</td>
<td>1/20/00–1/20/01</td>
<td>–162</td>
<td>22.1%</td>
<td>–6.1%</td>
<td>28.1%</td>
<td>13.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td>11/7/01–4/1/02</td>
<td>4/1/02–4/1/03</td>
<td>–162</td>
<td>–1.8%</td>
<td>–23.8%</td>
<td>22.0%</td>
<td>11.7%</td>
<td>–13.5%</td>
</tr>
<tr>
<td>6/11/03–9/2/03</td>
<td>9/2/03–9/2/04</td>
<td>–49</td>
<td>27.8%</td>
<td>10.1%</td>
<td>17.6%</td>
<td>6.8%</td>
<td>20.9%</td>
</tr>
<tr>
<td>3/16/04–6/14/04</td>
<td>6/14/04–6/14/05</td>
<td>–76</td>
<td>38.8%</td>
<td>8.9%</td>
<td>29.8%</td>
<td>7.5%</td>
<td>31.3%</td>
</tr>
<tr>
<td>6/27/05–6/28/06</td>
<td>6/28/06–6/28/07</td>
<td>–14</td>
<td>16.4%</td>
<td>23.1%</td>
<td>–6.7%</td>
<td>6.4%</td>
<td>10.1%</td>
</tr>
<tr>
<td>3/8/07–6/14/07</td>
<td>6/14/07–6/14/08</td>
<td>–96</td>
<td>–9.4%</td>
<td>–8.9%</td>
<td>–0.5%</td>
<td>6.8%</td>
<td>–16.2%</td>
</tr>
<tr>
<td>3/17/08–6/16/08</td>
<td>6/16/08–6/16/09</td>
<td>–61</td>
<td>–48.7%</td>
<td>–31.1%</td>
<td>–17.6%</td>
<td>6.4%</td>
<td>–55.1%</td>
</tr>
<tr>
<td>12/30/08–6/10/09</td>
<td>6/10/09–6/10/10</td>
<td>–63</td>
<td>54.4%</td>
<td>18.1%</td>
<td>36.3%</td>
<td>10.1%</td>
<td>44.3%</td>
</tr>
<tr>
<td>10/7/10–2/8/11</td>
<td>2/8/11–2/8/12</td>
<td>–176</td>
<td>12.9%</td>
<td>4.1%</td>
<td>8.8%</td>
<td>9.7%</td>
<td>3.2%</td>
</tr>
<tr>
<td>5/2/13–12/31/13</td>
<td>12/31/13–12/31/14</td>
<td>–86</td>
<td>30.1%</td>
<td>13.7%</td>
<td>16.5%</td>
<td>6.0%</td>
<td>24.2%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td>–103</td>
<td>15.6%</td>
<td>9.7%</td>
<td>6.0%</td>
<td>9.6%</td>
<td>6.0%</td>
</tr>
<tr>
<td><strong>Average excluding 2014</strong></td>
<td></td>
<td>–105</td>
<td>14.4%</td>
<td>9.3%</td>
<td>5.1%</td>
<td>9.9%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Source: Bloomberg Finance L.P. and Deutsche AWM as of 12/31/14. Performance is historical and does not guarantee future results. Returns shown are for the one-year period since the end of the rising-rate period. So, for example, the one-year return following the rising-rate period of 5/2/13 to 12/31/13 is from 12/31/13 to 12/31/14. Asset-class representation is as follows: REITs, FTSE NAREIT All Equity REITs Index; equities, S&P 500 Index; bonds, Barclays U.S. Aggregate Index. Index returns assume reinvestment of all distributions and do not reflect fees or expenses. Results would have been lower if fees had been deducted. It is not possible to invest directly in an index. See back page for index definitions.

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Certainly, short-term spikes in yields are a key risk for real estate, but the end of QE and potentially rising rates will primarily come from an improving economy, which we believe should benefit real estate. We would expect property types with shorter lease terms (such as apartments, hotels, self storage and some industrial properties) to benefit from the improving economy, countering any negative effect from rising interest rates. However, we believe more bond-like property types (such as health care and certain retail properties) will likely underperform in terms of income growth.

Fundamentals in real estate remain strong and should improve going forward and demand drivers are strengthening for most property types, while supply remains generally at bay. Strengthening fundamentals should result in growing rents for all property types in the near term. Interest rates and global central-bank policy may continue to drive the market and volatility in the short term; however, from a long-term asset allocation perspective, we believe the benefits of owning real estate in a portfolio far outweigh any near-term headwinds that rising interest rates may pose.

4. Strategic long-term allocation to REITs

Over the long term, we believe REITs offer investors a compelling investment allocation, providing access to real estate, low correlations to other asset classes, the potential for income, the potential for attractive total returns, inflation protection, and liquidity. REITs can also provide inflation protection in the form of higher dividends than equities, because historically, dividend yields have made up more than half of REIT total returns.

Figure 5 illustrates the historical long-term benefits of owning REITs. Adding a 15% allocation of REITs to a traditional portfolio of stocks and bonds generated an additional 109 basis points (annualized) of return in the one-year period after rates rose and an additional 26 basis points (annualized) during rising-rate periods.

More importantly, Figure 6 shows the potential benefit of owning real estate through multiple cycles. A long-term allocation to REITs (over 20 years) meaningfully improves the overall return of a portfolio.
Figure 5: Adding REITs to an equity and bonds portfolio increased returns

![Chart showing portfolio returns](chart.png)

Source: Bloomberg Finance L.P. and Deutsche AWM as of 12/31/14. Performance is historical and does not guarantee future results. Asset-class representation is as follows: REITs, FTSE NAREIT All Equity REITs Index; equities, S&P 500 Index; bonds, Barclays U.S. Aggregate Index. Index returns assume reinvestment of all distributions and do not reflect fees or expenses. Results would have been lower if fees had been deducted. It is not possible to invest directly in an index. See back page for index definitions. The 20-year period is 11/30/94–12/31/14.

Figure 6: Growth of $10,000, 11/30/94–12/31/14

![Growth chart](chart.png)

Source: Bloomberg Finance L.P. and Deutsche AWM as of 12/31/14. Performance is historical and does not guarantee future results. Asset-class representation is as follows: REITs, FTSE NAREIT All Equity REITs Index; equities, S&P 500 Index; bonds, Barclays U.S. Aggregate Index. Index returns assume reinvestment of all distributions and do not reflect fees or expenses. Results would have been lower if fees had been deducted. It is not possible to invest directly in an index. See back page for index definitions.
Definitions

The Barclays U.S. Aggregate Index tracks the performance of the broad U.S. investment-grade, fixed-rate bond market, including both government and corporate bonds. One basis point equals 1/100 of a percentage point. A capital-intensive business is business that requires large amounts of money and other financial resources to produce a good or service. Capital markets are markets for buying and selling equity and debt instruments. Correlation is a measure of how closely two variables move together over time. A 1.0 equals perfect correlation. A –1.0 equals total negative correlation. The FTSE NAREIT All Equity REITs Index tracks the performance of all tax-qualified REITs with more than 50% of total assets in qualifying real estate assets other than mortgages secured by real property. A dividend is a distribution of a portion of a company’s earnings to its shareholders. Fundamentals are any data, excluding the trading patterns of an investment itself, that can be expected to impact the price of that investment. A lease is a legal document outlining the terms under which one party agrees to rent property from another part. A lease term is a fixed, non-cancelable period for which a lease is in force. Outperformance is performance is excess of something else, often an index. Quantitative easing is the introduction of new money into the money supply by a central bank. A real estate investment trust (REIT) is a security that sells like a stock on the major exchanges and invests in real estate directly, either through properties or mortgages. Relative performance is performance relative to a benchmark. Rising-rate environments are those in which interest rates (as measured by the 10-year U.S. Treasury) have been in a rising period. The S&P 500 Index tracks the performance of 500 leading U.S. stocks and is widely considered representative of the U.S. equity market. The U.S. Federal Reserve Board (Fed) is the board of governors of the Federal Reserve; it implements U.S. monetary policy. Yield is the income generated by an investment divided by its current price. Real yield refers to yield in which the effects of inflation have been accounted for (vs. nominal yield, in which the effects of inflation have not been accounted for).
Any investment that concentrates in a particular segment of the market will generally be more volatile than an investment that invests more broadly. Investing in derivatives entails special risks relating to liquidity, leverage and credit that may reduce returns and/or increase volatility. Investing in foreign securities, particularly those of emerging markets, presents certain risks, such as currency fluctuations, political and economic changes, and market risks. There are special risks associated with an investment in real estate, including REITs. These risks include credit risk, interest rate fluctuations and the impact of varied economic conditions. Stocks may decline in value. Investments that are non-diversified and can take larger positions in fewer issues have increased potential risk.

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