

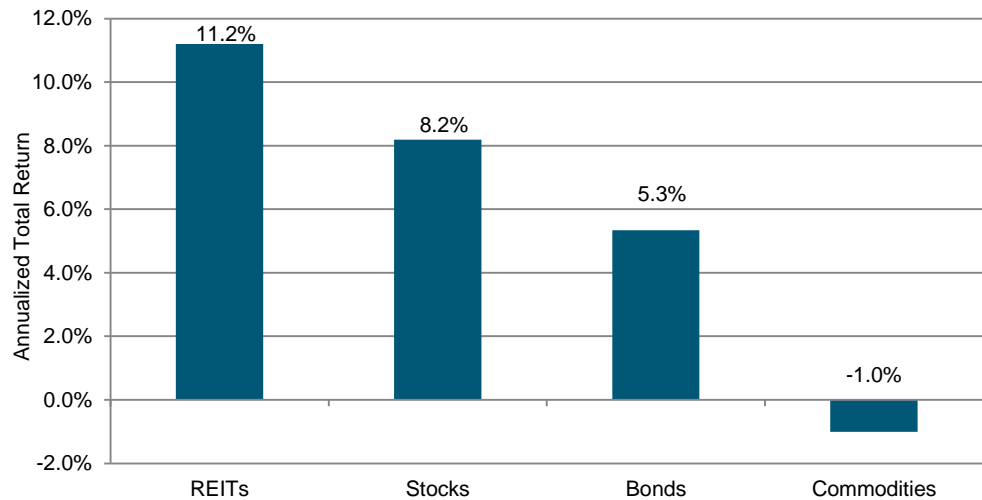
## CONTRIBUTOR

Michael Orzano, CFA  
Head of Equity Indices  
[michael.orzano@spglobal.com](mailto:michael.orzano@spglobal.com)

# The Impact of Rising Interest Rates on REITs

Over the past two decades, real estate investment trusts (REITs) have emerged as a popular and efficient way for investors of all stripes to access the real estate asset class. Strong long-term total returns, combined with other key investment characteristics such as liquidity, high dividend yields, and their potential to increase diversification and to hedge against inflation, have contributed to the appeal of REITs. Today, however, there is growing concern about how REITs will perform when interest rates ultimately rise from their current subdued levels.

## Exhibit 1: REITs Outperform Other Major Asset Classes (December 1995 – December 2015)



Today, there is growing concern about how REITs will perform when interest rates ultimately rise from their current subdued levels.

Source: S&P Dow Jones Indices LLC; Barclays Capital. Data as of Dec. 31, 2015. REITs, Stocks, Bonds and Commodities are represented by the Dow Jones U.S. Select REIT Index, the S&P 500, Barclays Capital U.S. Aggregate Index and the S&P GSCI, respectively. Chart is provided for illustrative purposes. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay.

It is commonly asserted that REITs are destined to underperform when interest rates rise. However, an examination of the historical record suggests that this is a misconception. Although interest rates certainly affect real estate values and, therefore, the performance of REITs, rising interest rates do not necessarily lead to poor returns.

Since the early 1970s, there have been six periods during which U.S. 10-Year Treasury Bond yields rose significantly. In four of those six periods, U.S. REITs earned positive total returns, and in half of those periods, U.S. REITs outperformed the S&P 500®. In one of the periods, U.S. REITs and the S&P 500 essentially posted identical performances, and in only two periods did the S&P 500 outperform U.S. REITs (see Exhibit 2).

**Exhibit 2: REIT Performance During Sustained Periods of Rising Interest Rates**

TIME PERIOD	U.S. 10-YEAR TREASURY YIELD			CUMULATIVE TOTAL RETURN OVER PERIOD		
	BEGINNING YIELD (%)	ENDING YIELD (%)	CHANGE (%)	REITS (%)	STOCKS (%)	DIFFERENCE (%)
December 1976-September 1981	6.9	15.3	8.5	137.4	46.0	91.4
January 1983-June 1984	10.5	13.6	3.1	35.6	16.5	19.1
August 1986-October 1987	7.2	9.5	2.4	-10.1	10.9	-21.0
October 1993-November 1994	5.3	8.0	2.6	-10.3	0.1	-10.3
October 1998-January 2001	4.5	6.7	2.1	27.4	27.8	-0.4
June 2003-June 2006	3.3	5.1	1.8	108.2	37.6	70.6

Source: S&P Dow Jones Indices LLC, Bloomberg, The Federal Reserve. REIT total returns are based on the FTSE/NAREIT Equity Index from Dec. 31, 1971 to Dec. 31, 1986, and they are based on the Dow Jones U.S. Select REIT Index after Dec. 31, 1986. Stock total returns are based on the S&P 500. Table is provided for illustrative purposes. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay.

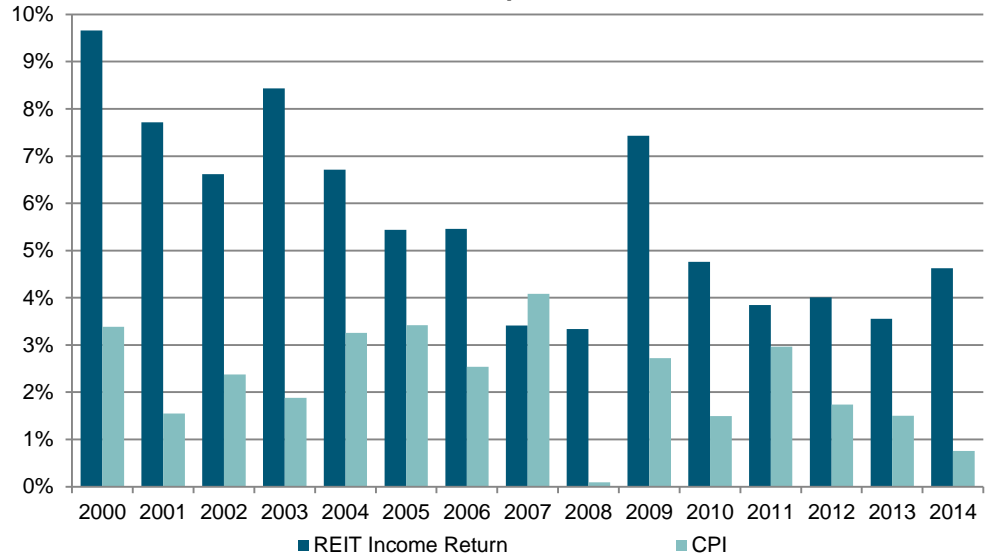
Rising interest rates pose challenges for REITs.

Undoubtedly, rising interest rates pose challenges for REITs. All else being equal, higher interest rates tend to decrease the value of properties and increase REIT borrowing costs. In addition, higher interest rates make the relatively high dividend yields generated by REITs less attractive when compared to lower-risk, fixed income securities, which reduces their appeal to income-seeking investors.

While it would require a much more detailed study to attempt to determine why REITs have generally fared well in rising interest rate environments, it is clear that rising interest rates are associated with other factors that positively affect REIT fundamentals. For example, rising interest rates are frequently associated with economic growth and rising inflation, both of which are likely to be positive for real estate investments. Healthy economic growth tends to translate into greater demand for real estate and higher occupancy rates, supporting growth in REIT earnings, cash flow, and dividends. In inflationary periods, real estate owners typically have the ability to increase rents, and REIT dividend growth has historically exceeded the rate of inflation as a result. As depicted in Exhibit 3, the

income component of REIT returns has exceeded inflation (as measured by the Consumer Price Index [CPI]) in 14 out of the past 15 years.

**Exhibit 3: REIT Income Growth Has Outpaced Inflation**



When expectations about future interest rates change suddenly, REITs have often experienced high volatility and rapid price changes.

Source: S&P Dow Jones Indices LLC; The Bureau of Labor Statistics. Data as of Dec. 31, 2015. REIT Income Return is calculated as the annual difference in return between the DJ U.S. Select REIT Price and Gross Total Return Indices. Chart is provided for illustrative purposes. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay.

**A NOTE ON UNEXPECTED SHORT-TERM INTEREST RATE CHANGES**

When expectations about future interest rates change suddenly, REITs (as well as other asset classes) have often experienced high volatility and rapid price changes. This phenomenon was evident in May 2013, when Fed Chairman Ben Bernanke suggested that the QE taper could start earlier than most market participants expected. The Chairman’s comments led to a sharp selloff of REITs and of some other asset classes, such as emerging market equities, which were viewed as reliant on “easy money” from the Fed. The Dow Jones U.S. Select REIT Index dropped 15.8% from its peak on May 21, 2013 (the day preceding the Fed comments), to its 2013 low on June 22, 2013. However, as markets calmed, the index recovered most of its losses by mid-July 2013 and has subsequently reached new highs in both 2014 and 2015.

**CONCLUSION**

Ultimately, whether interest rates are rising or falling does not seem to be the key driver of REIT performance over medium- and long-term periods. Rather, the more important dynamics to address are the underlying factors that drive rates higher. If interest rates are rising due to strength in the underlying economy and inflationary activity, stronger REIT fundamentals may very well outweigh any negative impact caused by rising rates.

## **ABOUT THE DOW JONES U.S. SELECT REIT INDEX**

Introduced in 1987, the Dow Jones U.S. Select REIT Index is one of the oldest and most widely used REIT benchmarks. It is designed to measure the performance of publicly traded U.S. REITs and serve as a proxy for direct real estate investment, in part by excluding companies whose performance may be driven by factors other than the value of real estate.

## **INDEX METHODOLOGY OVERVIEW**

### **Inclusion Requirements**

1. A company must be both an equity owner and operator of commercial and/or residential real estate.
2. At least 75% of total revenue must be derived from the ownership and operation of real estate assets.
3. The company must have a minimum float-adjusted market cap of USD 200 million.
4. The ratio of a company's one-month total value traded to its float-adjusted market cap must be at least 15% for the three consecutive months prior to the rebalancing.

### **Exclusions**

1. Mortgage REITs, hybrid REITs, specialized REITs (including net-lease REITs, timber REITs, railroad REITs, tower REITs, prison REITs, etc.).
2. Real estate finance companies, home-builders, mortgage brokers and bankers, commercial and residential real estate brokers, real estate agents and large landowners.
3. Companies that have more than 25% of their assets in direct mortgage investments.

### **Constituent Weighting**

The index is float-adjusted market cap weighted.

### **Rebalancing**

The index is rebalanced quarterly after the close on the third Friday in March, June, September and December.

<b>S&amp;P DJI Research Contributors</b>		
<b>NAME</b>	<b>TITLE</b>	<b>EMAIL</b>
Charles "Chuck" Mounts	Global Head	<a href="mailto:charles.mounts@spglobal.com">charles.mounts@spglobal.com</a>
<b>Global Research &amp; Design</b>		
Aye Soe, CFA	Americas Head	<a href="mailto:aye.soe@spglobal.com">aye.soe@spglobal.com</a>
Dennis Badlyans	Associate Director	<a href="mailto:dennis.badlyans@spglobal.com">dennis.badlyans@spglobal.com</a>
Phillip Brzenk, CFA	Director	<a href="mailto:phillip.brzenk@spglobal.com">phillip.brzenk@spglobal.com</a>
Smita Chirputkar	Director	<a href="mailto:smita.chirputkar@spglobal.com">smita.chirputkar@spglobal.com</a>
Rachel Du	Senior Analyst	<a href="mailto:rachel.du@spglobal.com">rachel.du@spglobal.com</a>
Qing Li	Associate Director	<a href="mailto:qing.li@spglobal.com">qing.li@spglobal.com</a>
Berlinda Liu, CFA	Director	<a href="mailto:berlinda.liu@spglobal.com">berlinda.liu@spglobal.com</a>
Ryan Poirier	Senior Analyst	<a href="mailto:ryan.poirier@spglobal.com">ryan.poirier@spglobal.com</a>
Maria Sanchez	Associate Director	<a href="mailto:maria.sanchez@spglobal.com">maria.sanchez@spglobal.com</a>
Kelly Tang, CFA	Director	<a href="mailto:kelly.tang@spglobal.com">kelly.tang@spglobal.com</a>
Peter Tsui	Director	<a href="mailto:peter.tsui@spglobal.com">peter.tsui@spglobal.com</a>
Hong Xie, CFA	Director	<a href="mailto:hong.xie@spglobal.com">hong.xie@spglobal.com</a>
Priscilla Luk	APAC Head	<a href="mailto:priscilla.luk@spglobal.com">priscilla.luk@spglobal.com</a>
Utkarsh Agrawal	Associate Director	<a href="mailto:utkarsh.agrawal@spglobal.com">utkarsh.agrawal@spglobal.com</a>
Liyu Zeng, CFA	Director	<a href="mailto:liyu.zeng@spglobal.com">liyu.zeng@spglobal.com</a>
Sunjiv Mainie, CFA, CQF	EMEA Head	<a href="mailto:sunjiv.mainie@spglobal.com">sunjiv.mainie@spglobal.com</a>
Daniel Ung, CFA, CAIA, FRM	Director	<a href="mailto:daniel.ung@spglobal.com">daniel.ung@spglobal.com</a>
Andrew Innes	Senior Analyst	<a href="mailto:andrew.innes@spglobal.com">andrew.innes@spglobal.com</a>
<b>Index Investment Strategy</b>		
Craig Lazzara, CFA	Global Head	<a href="mailto:craig.lazzara@spglobal.com">craig.lazzara@spglobal.com</a>
Fei Mei Chan	Director	<a href="mailto:feimei.chan@spglobal.com">feimei.chan@spglobal.com</a>
Tim Edwards, PhD	Senior Director	<a href="mailto:tim.edwards@spglobal.com">tim.edwards@spglobal.com</a>
Howard Silverblatt	Senior Industry Analyst	<a href="mailto:howard.silverblatt@spglobal.com">howard.silverblatt@spglobal.com</a>

## GENERAL DISCLAIMER

Copyright © 2016 by S&P Dow Jones Indices LLC, a part of S&P Global. All rights reserved. Standard & Poor's®, S&P 500® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"), a subsidiary of S&P Global. Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). Trademarks have been licensed to S&P Dow Jones Indices LLC. Redistribution, reproduction and/or photocopying in whole or in part are prohibited without written permission. This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, Dow Jones, S&P or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the necessary licenses. All information provided by S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices receives compensation in connection with licensing its indices to third parties. Past performance of an index is not a guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other vehicle. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Dow Jones Indices keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P Dow Jones Indices may have information that is not available to other business units. S&P Dow Jones Indices has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.