

The Dow Jones U.S. Select Short-Term REIT Index

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The [Dow Jones U.S. Select Short-Term REIT Index](#) seeks to track REITs in sectors that typically have short-term lease durations, with the goal of creating a REIT index that is less sensitive to interest rate changes.

OVERVIEW: THE ROLE OF INTEREST RATES ON REIT INDICES

REITs are a popular and efficient way for market participants to access the real estate asset class. The potential for strong long-term total returns combined with other key investment characteristics, such as a tendency for high dividend yields, inflation-hedging properties, and a relatively low correlation with other asset classes, have contributed to the appeal of REITs. However, because they are widely considered to be rate-sensitive assets, there is substantial interest among market participants to see how REITs have performed when interest rates increased during periods of high fluctuation. Although there is evidence that REITs have typically fared well over full cycles of rising rates, U.S. REITs have often experienced sharp sell-offs in short-term periods in which interest rates have increased significantly. Given this context, there is considerable interest in a U.S. REIT index that may be less sensitive to interest rate movements.

HOW DOES THE INDEX WORK?

The Dow Jones U.S. Select Short-Term REIT Index is a subset of the [Dow Jones U.S. Select REIT Index](#) that only includes REITs in property sectors that typically have relatively short-term lease durations. These sectors are apartments, hotels/resorts, manufactured homes, and self-storage. Theoretically, REITs with shorter lease durations should be less sensitive to interest rates, given that they can more quickly reprice their rental agreements. For example, a hotel effectively has overnight leases and can rapidly respond to market changes. Similarly, apartment owners typically engage in one-year leases with tenants, making the average lease duration of apartment REITs under one year. On the other hand, office, health care, and other major REIT sectors generally have much longer-term lease durations—giving them more bond-like cash flow characteristics. Exhibit 1 shows the different Dow Jones U.S. Select REIT Term Indices with their sub-sectors and the typical average lease duration. The indices also employ a 5% cap on stock weights to reduce single-stock concentration.

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Exhibit 1: Average Lease Duration

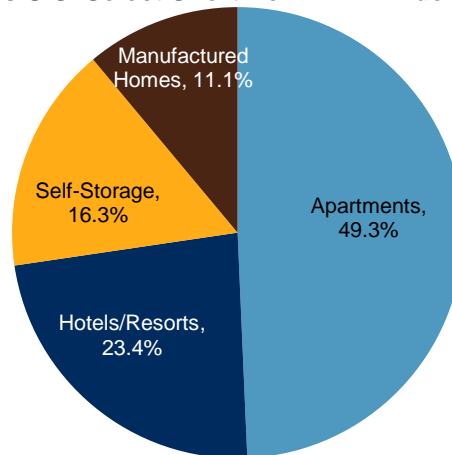
INDEX	REIT CLASSIFICATION*	AVERAGE LEASE TERMS
Dow Jones U.S. Select Short-Term REIT Index	Apartments REIT	6-12 Months
	Hotels REIT	Daily
	Manufactured Homes REIT	1 Year
	Self-Storage REIT	Monthly
Dow Jones U.S. Select Medium-Term REIT Index	Industrial REIT	3-5 Years
	Mixed, Industrial/Office REIT	5 Years
	Strip Centers REIT	5 Years
	Factory Outlets REIT	3-5 Years
	Diversified REIT	3-5 Years
Dow Jones U.S. Select Long-Term REIT Index	Health Care REIT	10-15 Years +
	Regional Malls REIT	10 Years +
	Office REIT	5-10 Years +

Source: S&P Dow Jones Indices LLC. Table is provided for illustrative purposes. *Based on the S&P Dow Jones Indices REIT/RESI Industry Classification Hierarchy. All lease terms are approximate ranges.

...such as apartments, hotels/resorts, manufactured homes, and self-storage.

THE CHARACTERISTICS AND HISTORICAL PERFORMANCE ATTRIBUTES OF THE INDEX

Exhibit 2: Dow Jones U.S. Select Short-Term REIT Index Sector Composition



Source: S&P Dow Jones Indices LLC. Data as of October 31, 2019. Chart is provided for illustrative purposes.

It also employs a 5% cap on stock weights to reduce single-stock concentration.

Over the full length of the back-test from Sept. 15, 2000, to Oct. 31, 2019, the [Dow Jones U.S. Select Short-Term REIT Index](#) outperformed the Dow Jones U.S. Select REIT Index 81.5% of the time during periods in which the 10-year U.S. Treasury Bond yield increased by more than 50 bps within a period of four months or less (see Exhibit 3). For periods in which the 10-year U.S. Treasury Bond yield increased by more than 100 bps in a period of four months or less, the index outperformed nearly 100% of the time. Interestingly, the index did not consistently outperform or underperform the broader REIT market in periods of falling rates.

During the “taper tantrum” of 2013, the Dow Jones U.S. Select REIT Index fell nearly 15%...

Exhibit 3: Frequency of Outperformance of the Dow Jones U.S. Select Short-Term REIT Index Versus Dow Jones U.S. Select REIT Index During Periods of Rising and Falling Rates

PERIOD	OUTPERFORMANCE (% of time)
Rate Up 50 bps	81.5
Rate Up 100 bps	100.0
Rate Down 50 bps	47.1
Rate Down 100 bps	60.0

Source: S&P Dow Jones Indices LLC. Data from Sept. 15, 2000, to Oct. 31, 2019. Calculations are based on daily gross total return index levels. Measurement is over any period of four months or less. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Examining a few instances in which interest rates increased substantially over relatively short periods illustrates this effect. For example, during the “taper tantrum” of 2013, when the 10-year U.S. Treasury Bond yield jumped 110 bps, the Dow Jones U.S. Select REIT Index fell nearly 15% (see Exhibit 4). Over the same period, the Dow Jones U.S. Select Short-Term REIT Index declined a comparatively small 9%. Likewise, the index exhibited outperformance relative to the broader REIT market from the trough in yields in July 2016 through December 2016.

...while the Dow Jones U.S. Select Short-Term REIT Index declined a comparatively small 9%.

Exhibit 4: Outperformance During Rising Rate Episodes

TIME PERIOD	CHANGE IN 10-YEAR YIELD (BPS)	TOTAL RETURN (%)	
		DOW JONES U.S. SELECT SHORT-TERM REIT INDEX	DOW JONES U.S. SELECT REIT INDEX
Jul. 05, 2016 - Dec. 15, 2016	123	-2.9	-7.8
2013 Taper Tantrum*	110	-9.2	-14.6

Source: S&P Dow Jones Indices LLC and U.S. Federal Reserve. 2016 minimum yield to Dec. 15, 2016, is defined as the date of the lowest 10-year Treasury yield of 2016 (1.37% on July 5, 2016) to the year's peak yield on Dec. 15, 2016. The 2013 Taper Tantrum is defined as the day prior to Ben Bernanke's comments on tapering (May 21, 2013) to the peak yield reached since that date (Dec. 31, 2013). Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

The Dow Jones U.S. Select Short-Term REIT Index has also outperformed the broader REIT market over the long run.

The Dow Jones U.S. Select Short-Term REIT Index has also outperformed the broader REIT market over the long run, with modestly lower volatility (see Exhibit 5). This effect seems to be a by-product of the index's less-severe drawdowns during periods of rapidly rising rates.

Exhibit 5: Comparative Long-Term Performance Metrics

PERIOD	Dow Jones U.S. SELECT SHORT-TERM REIT INDEX	DOW JONES U.S. SELECT REIT INDEX
RETURN (%)		
3-Year	13.7	8.9
5-Year	10.7	7.7
10-Year	16.8	13.3
15-Year	10.9	8.4
RISK (%)		
3-Year	11.9	12.3
5-Year	12.6	13.7
10-Year	15.9	15.6
15-Year	22.3	23.0

The dividend yield of the Dow Jones U.S. Select Short-Term REIT Index was 3.54% as of Oct. 31, 2019,

Source: S&P Dow Jones Indices LLC. Data as of Oct. 31, 2019. Calculations are based on monthly gross total return index levels in USD. Risk is defined as annualized standard deviation of returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

...which is very much in line with the 3.55% yield of the Dow Jones U.S. Select REIT Index

The dividend yield of the Dow Jones U.S. Select Short-Term REIT Index was 3.54% as of Oct. 31, 2019—very much in line with the 3.55% yield of the Dow Jones U.S. Select REIT Index. The index has consistently provided a dividend yield similar to that of the broader U.S. REIT market over the longer term (see Exhibit 6).

Exhibit 6: Comparative Dividend Yields

PERIOD	DOW JONES U.S. SELECT SHORT-TERM REIT INDEX	DOW JONES U.S. SELECT REIT INDEX
5-Year Average (%)	3.75	3.73
Current (%)	3.54	3.55

Source: S&P Dow Jones Indices LLC. Data as of Oct. 31, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

CONCLUSION: KEY BENEFITS OF THE DOW JONES U.S. SELECT SHORT-TERM REIT INDEX

The index has historically offered a dividend yield in a similar range as the broader U.S. REIT market.

Lower Sensitivity to Interest Rate Movements: The index may be less sensitive to interest rate movements compared with the broader U.S. REIT market, potentially providing downside protection in rising rate environments.

High Income Component: The index has historically offered a dividend yield in a similar range as the broader U.S. REIT market.

Limited Concentration: The 5% stock cap seeks to enhance diversification by limiting single-stock concentration.

PERFORMANCE DISCLOSURE

Dow Jones U.S. Select Short-Term REIT Index was launched August 22, 2016. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at www.spdji.com. Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the Index is set at a fixed value for calculation purposes. The Launch Date designates the date upon which the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its datafeed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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