AEW RESEARCH

Rising Interest Rates and REITs

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Prepared by AEW Research

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Rising Interest Rates and REITs

“Interest rate increases” are not all the same, and can markedly drive different absolute and relative returns for REITs.

Introduction

In recent years, the question we hear most frequently from prospective REIT investors is how REITs will perform in a rising rate environment. Setting aside the suddenly pertinent question of whether we are still in such an environment, our typical response has been that REITs have often been solid performers when interest rates are moving up. This is especially true if those rate increases are being driven by an economy that is strong enough to keep rents and net operating incomes growing quickly. This can offset the impact of both more expensive financing and the upward pressure on cap rates we might see when other income vehicles begin offering more competitive yields.

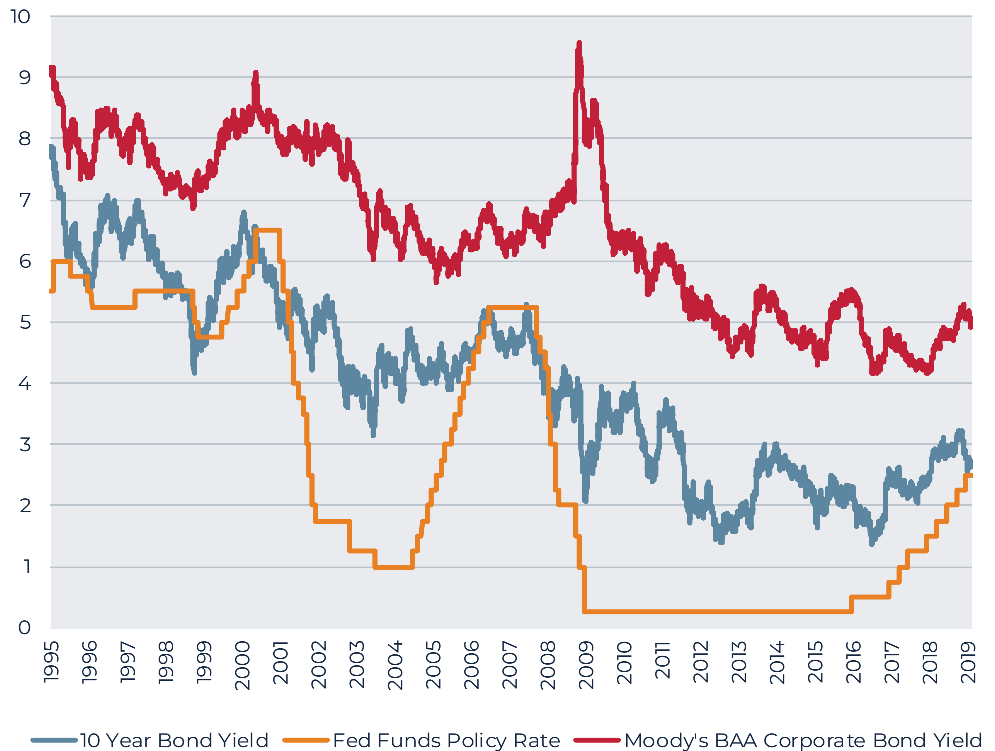
However, not all “interest rate increases” are the same, and this paper explores how REITs perform under different kinds of interest rate upcycles.

What Kind of Interest Rate Increases Do You Mean?

To many people, “interest rate increases” merely mean the Federal Reserve is increasing the Federal Funds target rate. Increases in the Federal Funds target rate tend to be long and steady and telegraphed well in advance, while both Treasury and corporate bond yields are much more volatile and sensitive to the day-to-day vagaries of financial markets. If the Fed is credibly reigning in inflation by hiking short rates, long Treasury rates may well move lower as the spread investors demand for longer-term lending narrows. On the other hand, if the market is worried that the Fed is being overly aggressive, corporate bond spreads may widen and yields may move up at the same time as Treasury yields of similar duration fall. As investors become concerned that the economy will weaken and corporate defaults will rise, they allocate to Treasury bonds in search of safety. In short, the term “rising interest rate environment” is often too muddled to be useful. Different types of interest rates have very different cycles.

The chart below shows three different benchmark interest rates over the period between January 1, 1995 (the start of the MSCI US REIT index) and February 15, 2019.

Figure 1: Long Term Interest Rate and Yield Trends



*Source: Moody's, Factset, AEW Research

In order to explore rising rates' relationship with REIT performance, AEW Research created a flexible algorithm that allows us to investigate performance relative to each of these rate cycles. After experimenting with a variety of parameters to find the ones that best captured the beginnings and ends of rate cycles, we settled on periods where rates increased at least 100 basis points over periods of at least nine months. While there is nothing magical about these parameters, they did a good job of identifying tops and bottoms of sustained rate cycles for each of the interest rates depicted above.

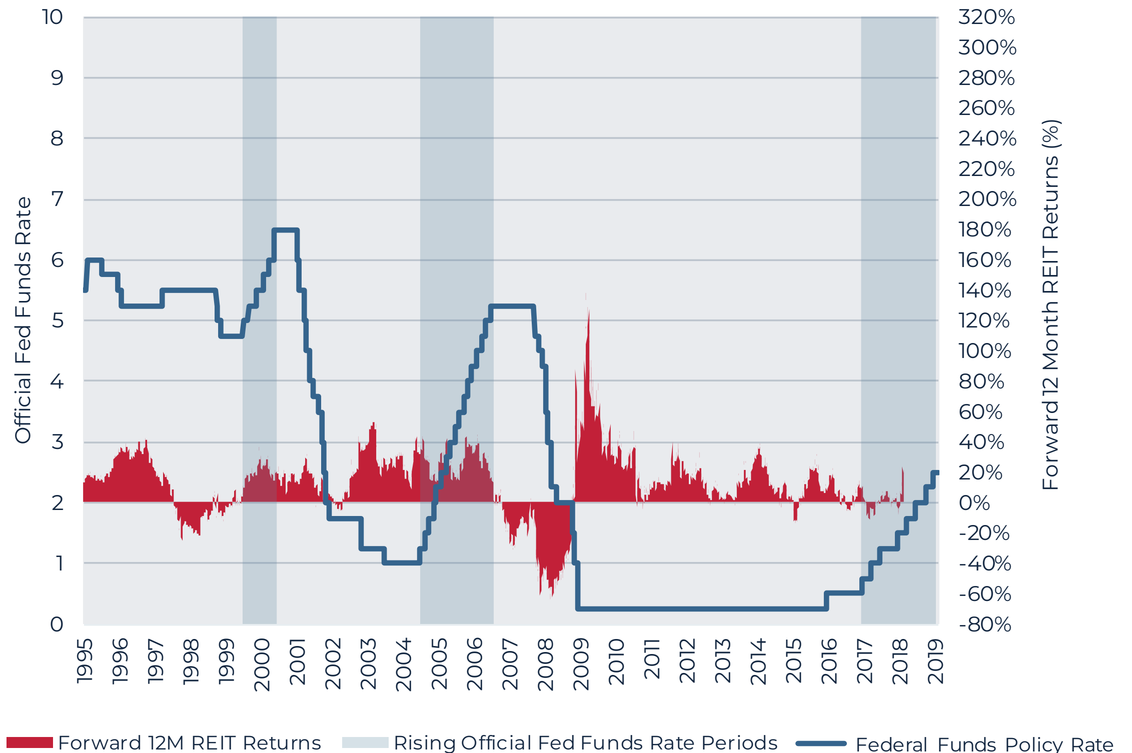
The charts in each section below show how REITs performed at each point of the cycle for the Fed Funds rate, the 10 year Treasury yield, and the Moody's BAA corporate bond yield. Each chart contains shaded areas to identify the periods identified as "rising interest rate cycles" by the algorithm. The next 12 month's returns in the REIT market are denoted in green and scaled so that they are confined to the bottom of the charts so the interest rate cycles are more visible. REIT returns are on the right hand scale. These REIT returns are meant to indicate how REITs performed over the year after each point in the interest rate cycle in question.

Federal Funds Rate Increases

For the Federal Funds rate, there have been only three major rate cycles after 1995. The abbreviated cycle in 1996-97 and the one year pause after the first 25 basis point hike in December 2015 do not meet the "100 basis points in nine months" threshold.

Fed Funds rate upcycles are long, well-telegraphed and typically occur in tandem with a strong economy. REITs have delivered positive returns both during and immediately after these cycles.

Figure 2: Federal Funds Rate Upcycles



*Source: Factset, MSCI, AEW Research

The table below shows the performance of US REITs, the S&P 500 and the Bloomberg Barclays US Bond Aggregate over the highlighted periods[1]. REITs delivered positive returns in all three Fed Funds rate upcycles. They underperformed stocks in two of three periods, but wildly outperformed stocks during the June 2004-June 2006 cycle, increasing 59.5% while the S&P 500 was up 16.2%. REITs outperformed the Bloomberg Barclays bond index in all three cycles as real estate was able to capitalize on growing incomes in way that fixed income vehicles cannot. In the year following the end of the cycle, REITs delivered healthy double digit returns, beating stocks in one of two periods and bonds in both. (We obviously do not have year-ahead returns for the most recent cycle.)

[1]REIT performance is measured by the MSCI US REIT index. Bond performance is measured using the Bloomberg Barclays US Bond aggregate that includes a value weighted mix of both sovereign and corporate bonds as well as various mortgage backed securities. Returns during rate cycles are not annualized and are based on daily data beginning at the bottom of the interest rate cycle. All returns are calculated using daily data and standardized trading years of 262 days. Nine month periods use 197 trading days and half years use 131 trading days. Due to weekends and other trading holidays, these periods may be slightly different than simply moving six, nine or twelve months forward or back from a given date, but they are a close approximation.

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Table 1: REIT Performance During and After Fed Funds Rate Upcycles

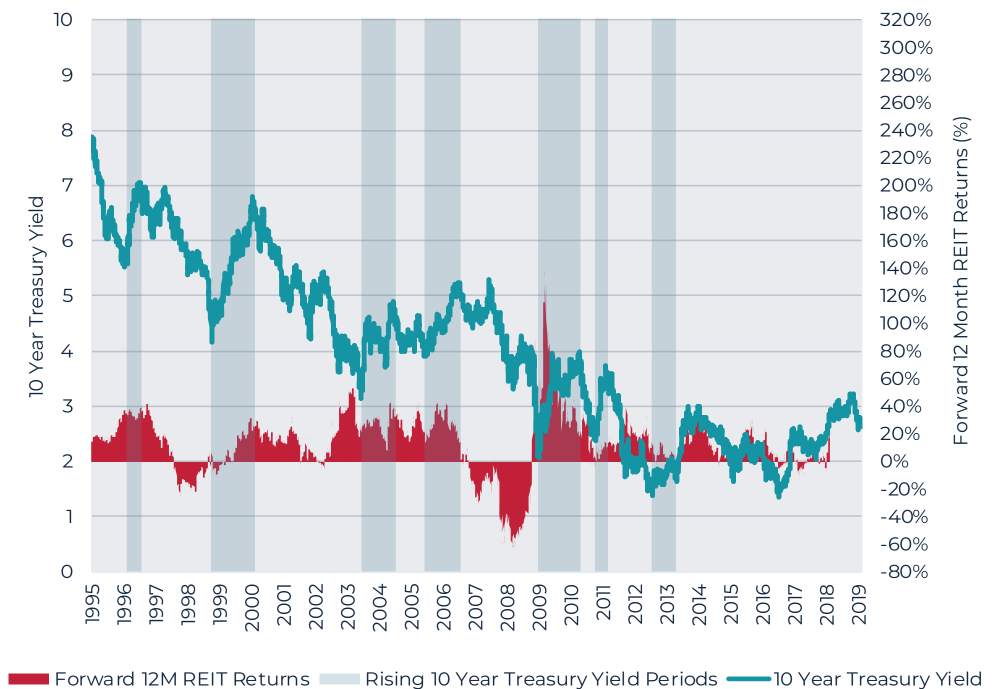
			Total Returns During Cycle					Total Returns During Year After Cycle Ends				
Start	End	Cycle Rate Move	REITs	S&P 500	REITs +/-	US Bonds	REITs +/-	REITs	S&P 500	REITs +/-	US Bonds	REITs +/-
6/29/1999	5/16/2000	1.75	3.3%	9.7%	-6.3%	2.0%	1.3%	15.0%	-11.1%	26.1%	13.8%	1.2%
6/29/2004	6/29/2006	4.25	59.5%	16.2%	43.3%	6.1%	53.5%	16.1%	21.6%	-5.5%	6.7%	9.5%
12/14/2016	12/20/2018	2.00	4.5%	14.0%	-9.4%	3.8%	0.7%	NA	NA	NA	NA	NA

*Source: Factset, S&P, Bloomberg Barclays, MSCI, AEW Research

10 Year Treasury Yield Increases

The next chart illustrates how REITs have performed relative to cycles in the 10 year Treasury yield. The Treasury yield is set by the market and is much more volatile than the Fed Funds rate, and consequently there are many more cycles to explore. Here too, REIT have generally performed well during rising rate periods and have generally delivered positive returns both during and after such periods. As with the Fed Funds rate, the most prolonged periods of negative REIT performance have actually been during periods of falling 10 year Treasury yields, not rising yields. This is consistent with our experience that the biggest risk to REIT performance is not higher interest rates but rather economic downturns that weigh on rents and occupancy.

Figure 3: 10 Year Treasury Yield Upcycles



*Source: Factset, MSCI, AEW Research

REITs usually delivered positive returns when the 10-Year Treasure Yield was rising, but often underperformed other equities. They almost always outperform bonds during and after these upcycles.

The table below provides more detail on REIT performance for each period where the 10 year Treasury yield was moving upward. While REITs delivered positive returns in seven of nine such cycles, they did lag behind the S&P 500 in two-thirds of them. They outperformed bonds during all but one upcycle. On the other hand, looking forward a year from the end of each cycle they tended to outperform both stocks and bonds.

Table 2: Performance During and After 10 Year Treasury Yield Upcycles

			Total Returns During Cycle					Total Returns During Year After Cycle Ends				
Start	End	Cycle Rate Move	REITs	S&P 500	REITs +/-	US Bonds	REITs +/-	REITs	S&P 500	REITs +/-	US Bonds	REITs +/-
1/18/1996	7/5/1996	1.53	6.2%	9.2%	-3.1%	-3.1%	9.3%	35.0%	42.6%	-7.6%	10.9%	24.1%
10/5/1998	1/20/2000	2.63	2.0%	48.7%	-46.7%	-2.4%	4.4%	22.1%	-6.0%	28.2%	13.4%	8.7%
6/13/2003	6/14/2004	1.76	20.9%	15.8%	5.1%	-2.4%	23.3%	39.2%	9.2%	30.0%	7.5%	31.7%
6/2/2005	6/28/2006	1.36	20.7%	5.5%	15.2%	-1.3%	22.0%	15.4%	22.9%	-7.5%	6.8%	8.7%
1/1/2009	4/5/2010	1.93	45.7%	35.3%	10.4%	7.1%	38.6%	20.9%	14.8%	6.1%	5.5%	15.4%
10/8/2010	2/8/2011	1.34	9.0%	14.4%	-5.4%	-3.1%	12.1%	12.2%	4.3%	7.9%	9.6%	2.6%
7/24/2012	12/27/2013	1.61	5.6%	42.0%	-36.5%	-1.8%	7.4%	32.2%	15.3%	16.9%	6.0%	26.2%
7/8/2016	3/13/2017	1.26	-7.7%	13.1%	-20.7%	-3.8%	-3.9%	-1.5%	18.1%	-19.6%	2.1%	-3.6%
9/8/2017	10/5/2018	1.19	-0.6%	19.7%	-20.3%	-2.9%	2.3%	NA	NA	NA	NA	NA

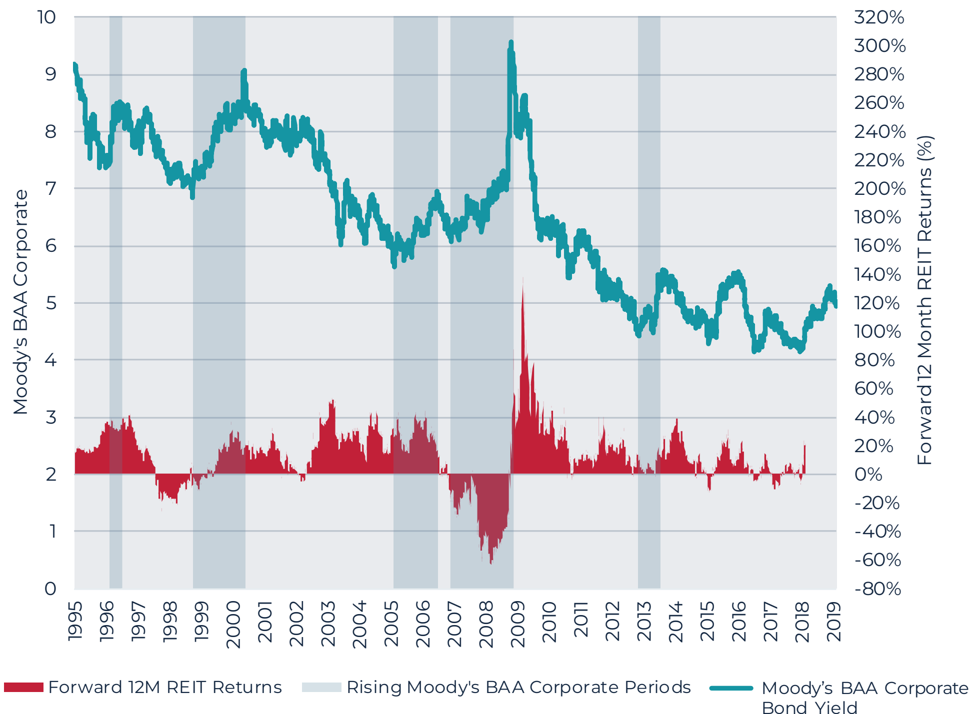
*Source: Factset, S&P, Bloomberg Barclays, MSCI, AEW Research

Corporate Bond Yield Increases

REITs behave somewhat differently relative to corporate bond yields than to less risky government benchmarks. Spreads between corporate bonds and safer instruments tend to widen in times of economic stress, and there are several periods when corporate bond yields troughed and began upcycles right when forward REIT returns turned negative. The Long Term Capital Management[2] widening that began in October 1998 was the worst period of relative underperformance in any of the upcycles in this overview, and the late cycle widening that began in late 2006 was the weakest period of absolute REIT performance since 1995. Leases to corporate tenants are subject to similar credit quality risks as corporate bonds, so it makes some sense that the relationship between REIT returns and corporate bond yields is a bit tighter.

[2] Long Term Capital Management was a large, highly levered hedge fund that nearly defaulted in 1998 before a Fed-led bailout stabilized the situation. A default would have triggered a global financial crisis due to the write-offs its creditors would have had to make, and credit spreads widened markedly before the bailout.

Figure 4: Moody's BAA Corporate Bond Yield Upcycles



*Source: Factset, Moody's, AEW Research

Corporate bond yields can move up due to rising base interest rates and widening credit spreads. Being dependent upon corporate credit, REIT returns were weakest when credit spreads were widening.

REITs still delivered positive performance in five of seven periods where the Moody's BAA yield climbed by at least 100 basis points. That said, they underperformed stocks in all but one such cycle, and while returns were robust in the 12 months after corporate bond yields peaked they were not consistently better than the S&P 500. In absolute terms, REITs did best in the long periods where BAA yields were trending down, most often due to improving economic conditions. They did generally outperform US bonds during and after corporate bond yield upcycles with the notable exception of 2006-2008. During this period, credit spreads widened sharply even as underlying benchmark interest rates were flat or even down. Indeed, the two periods where REIT performance was weakest relative to bonds were when corporate bond spreads were widening markedly — the Global Financial Crisis and in 2015.

Table 3: Performance During Moody's BAA Yield Upcycles

			Total Returns During Cycle					Total Returns During Year After Cycle Ends				
Start	End	Cycle Rate Move	REITs	S&P 500	REITs +/-	US Bonds	REITs +/-	REITs	S&P 500	REITs +/-	US Bonds	REITs +/-
10/11/1995	6/11/1996	1.16	10.9%	17.6%	-6.7%	0.7%	10.2%	31.6%	34.5%	-2.9%	9.8%	21.8%
10/2/1998	5/17/2000	2.23	7.9%	47.4%	-39.5%	-0.4%	8.3%	16.2%	-9.7%	25.9%	14.0%	2.2%
2/8/2005	6/23/2006	1.30	28.8%	6.2%	22.6%	0.0%	28.8%	15.7%	22.2%	-6.5%	6.4%	9.3%
11/30/2006	10/29/2008	3.49	-49.0%	-31.0%	-18.0%	4.7%	-53.8%	11.7%	14.4%	-2.7%	13.5%	-1.8%
11/7/2012	8/16/2013	1.16	2.4%	20.8%	-18.4%	-3.3%	5.8%	25.0%	22.2%	2.8%	5.7%	19.3%
1/30/2015	12/28/2015	1.25	-3.8%	5.1%	-9.0%	-1.4%	-2.5%	5.9%	11.9%	-6.0%	2.0%	3.8%
12/14/2017	11/28/2018	1.14	2.6%	5.4%	-2.8%	-2.0%	4.5%	NA	NA	NA	NA	NA

*Source: Factset, S&P, Bloomberg Barclays, MSCI, AEW Research

The Blind Taste Test

The above comparisons suggest that REITs can perform well during and especially immediately after upward moves in interest rates of various types. That said, they all assume perfect hindsight – we rarely know how far any given rate increase cycle has to go when we are in the middle of it. What if we don't know whether we are closer to the beginning or the end of the cycle?

To test this, we set up a blind test that knows nothing about where we are in the cycle. We kept the period a bit shorter (6 months) and the rate increases a bit smaller (50 bps) in order to capture the murky reality of those situations where you are a few months into an upward rate move and don't know what will happen next. We tested all trading days between July 1, 1995 and August 15, 2018 (six months after the MSCI REIT index data starts and six months before our February 15, 2019 end date). For dates that met the threshold of a 50 basis point move in the past six months, we calculated average returns for the trailing six months as well as the subsequent six months.

Over all rolling six month windows, REITs performed best during Fed Funds rate cycles. They underperformed stocks but delivered healthy returns when the 10 year yield was moving up. They also outperformed bonds.

Table 4: Returns During and After 50 bps Increases in Interest Rates

	Fed Funds Rate	10 Year Treasury	Moody's BAA
Number of Days	6033	6033	6033
Number of Days with a 50 bps Rate Increase in Trailing Period	706	1108	794
Average REIT Return During Those +50 bps 6M Windows	11.7%	6.4%	-6.5%
Average S&P 500 Return During Those +50 bps 6M Windows	5.3%	10.6%	-1.4%
Average Bond Return During Those +50 bps 6M Windows	1.8%	-0.5%	-0.5%
Average REIT Return for the Six Months Afterward	12.5%	9.0%	3.8%
Average S&P 500 Return for the Six Months Afterward	2.9%	6.5%	4.2%
Average Bond Return for the Six Months Afterward	2.8%	3.3%	3.1%

*Source: Factset, S&P, Bloomberg Barclays, MSCI, AEW Research

On average, rising corporate bond yields were most challenging for REITs.

These results mostly mirror the prior analysis. When the Federal Funds Rate was up more than 50 bps in the prior six months (which amounts to at least 75 bps since it generally moves in quarter point increments), REITs on average outperformed stocks and bonds both during and after the move no matter what direction rates moved next. When the 10 year Treasury yield increased more than 50 bps over the prior six months, REITs lagged the S&P 500 but still delivered good returns averaging 6.4%, and they outperformed over the next six months. The Moody's BAA was again more indicative of underperformance for the REIT market as they lagged well behind both stocks and bonds while corporate bond yields were moving up. They did provide competitive returns over the next six months that were just below stocks and ahead of bonds.

Conclusions

Casual followers of the REIT market routinely worry about "rising interest rates" as though all interest rates move in lockstep with the Federal funds rate and assume that REITs will necessarily be poor performers during the upward-moving part of those cycles. In reality, the biggest risk to REIT returns is not higher interest rates but rather economic downturns that weigh on rents and occupancies. On the other hand, expectations about REIT performance during rising rate periods must distinguish between the different types of interest rates in the economy. REITs often provide quite competitive returns when "safe" yields like the Fed Funds rate or even those on long duration Treasuries are moving up, in large part because these movements usually correspond with periods where the economy is performing well. Fears of a REIT selloff based on these kinds of interest rate increases are usually overdone — REIT returns are not always better than stocks but they are positive much more often than not. On the other hand, corporate bond yield increases correspond more closely with subpar REIT returns, an outcome which likely rests on the fact that corporate borrowers and REIT tenants are often one and the same and deteriorating credit impacts both asset classes negatively. REITs have still delivered very competitive returns relative to the overall bond market both during and after interest rate upcycles. REITs provide income, diversification and competitive returns to multi-asset class investors and they can contribute to overall portfolio performance even when rates happen to be rising. As a result, REITs should be in most well-diversified portfolios.

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