



## Do Rising Interest Rates Affect Commercial Real Estate Returns?

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### How Much Might Interest Rates Rise?

The Federal Reserve (the Fed) raised the federal funds rate again (the rate charged for overnight loans between banks), by 0.25% to 1.0% in June 2017. This is an additional rate increase after a seven-year period of almost zero percent interest rates that started after the Great Recession and financial crisis of 2008-2009. Recent increases have been predicted more times than they have happened as the economy continues to grow at a slow rate — the interest rate increases are not affecting the inflation that the Fed anticipated. Inflation continues to stay near the Fed's desired 2% target rate. It is interesting that the Fed is confident in the U.S. economy despite low oil and commodity prices, a weak U.S. manufacturing sector and slowing economic growth around the world. China and other developing economies are seeing their economies slow down. The Fed says it intends to implement more rate increases in the coming years, targeting a 3.5% rate by the end of 2018. However, it is unlikely to happen that soon. The current increases have been about a quarter the speed of the Fed's rate tightening from 2004-2006, where rates moved from 1.00% to 5.25% in quarter-point increments in 17 separate increases. Most economists now are estimating "lower for longer" interest rates.

The bottom line is that monetary policy remains moderate and the pace of tightening should be slow. For commercial real estate, this marks the likely end of capitalization rate (cap rate) yield declines. This portends either a stable or a minor rise in interest rates on mortgage and construction loans, eventually putting upward pressure on cap rates.

### What Drives Commercial Real Estate Returns?

The planned slow pace of tightening should help commercial real estate manage to this continued low rate environment and the eventual turning point in the cycle. Remember that economic growth improves commercial real estate fundamentals by pushing occupancies and rents higher, which drives income growth. In past economic expansions, income growth has risen faster than interest rates, mitigating the impact that rising cap rates have had on property values. During the 2004-2006 tightening cycle when the federal funds rate rose sharply, the average cap rate for all property types increased by about one percentage point. The spread between the cap rate and the 10-year Treasury bond yield compressed from 295 basis points to 158 basis points as investors poured increasingly large amounts of capital into the property markets.

Historically, commercial real estate has followed the U.S. economy and the current cycle should be no different. However, some investors still have the misconception that increasing interest rates may harm commercial real estate returns. In this paper, we analyze the macro drivers of commercial real estate returns and debunk the myths.

The total return of any investment comes from two components — income and price change. Different from other asset classes like stocks, bonds, commodities and non-real estate based alternative investments, commercial real estate income growth is driven by occupancy increases and rent growth. Commercial real estate prices are driven by capital flows into real estate assets. Unfortunately, the marketplace has lumped the commercial real estate asset class with the financial sector. Many have assumed that commercial real estate should be affected in the same manner as bonds and financial companies. Meaning that when interest rates rise, real estate values should decline like bonds and financial stocks.

However, "income-producing" commercial real estate — as a separate asset class — has some bond-like characteristics in its income and some stock-like characteristics in its pricing. Commercial real estate also has major differences to make it the separate asset class it truly is, with low correlation to stocks and bonds, which contribute to its benefit as a good portfolio diversifier.

Basic economics tell us that as the economy improves more jobs are created, which produces increased demand, inflation and higher interest rates. While general stock prices are expected to appreciate from growing earnings in an expanding economy, bond prices are expected to decline due to higher interest rates. For commercial real estate, the economic cycle of gross domestic product (GDP) growth driving employment growth provides increased demand, which improves



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property occupancy and rent growth. These improvements have historically made commercial real estate a more attractive investment as its income rises and more people want to buy – driving prices up even when interest rates increase. But do those occupancy, rent and income improvements grow faster than inflation or interest rates?

Let’s examine this question by reviewing the National Council of Real Estate Investment Fiduciary (NCREIF) Property Index data that began in 1977. In looking at the commercial real estate returns over the past 40 years and five U.S. economic cycles, we examine the correlations between commercial real estate income, price and total return with the major macro-economic indicators. Since many investors are concerned that commercial real estate may do poorly in a rising interest rate environment, we also separate and examine periods of rising versus falling interest rates.

## How Commercial Real Estate Performed Over the Past Five Economic Cycles

In Table 1, the averages for the major economic indicators and commercial real estate property index returns. We see that the NCREIF total return average of 9.05% (represented by NCREIF’s “NPI Total Return” category) is made up of 7.09% income return and 1.95% price appreciation. Thus, income constituted 78% of the total return. Quite an alternative versus bonds! The commercial real estate total return was 3.42 times average GDP growth, 6.91 times average employment growth, 1.43 times the average 10-year Treasury bond yield and 2.53 times the rate of inflation. Thus, commercial real estate proved to be a good hedge against inflation over the past 40 years.

**Table 1**  
**NCREIF Property Index Returns and Macro-Economic Indicators**

	NPI Total Return	NPI Income Return	NPI Price Return	GDP Growth	Employment Growth	10-Year Treasury Bond Yield	CPI
Total 40-Year Average	9.05%	7.09%	1.95%	2.65%	1.31%	6.33%	3.58%
Rising Interest Rate Years Average (17 Years)	12.90%	7.41%	5.49%	2.98%	1.69%	7.84%	5.17%
Falling Interest Rate Years Average (23 Years)	6.39%	7.08%	(0.69)%	2.58%	1.03%	5.62%	2.82%

Sources: NCREIF, BEA, BLS and Federal Reserve, 1977-2017.

When we separate rising interest rate years (17) and falling interest rate years (23), we find that commercial real estate returns have done much better during rising interest rate years than falling interest rate years by approximately 70% higher than the 40-year average. This is in direct opposition to market perception that commercial real estate should do poorly in rising interest rate environments. Note that the income return is higher (which makes sense as interest rates rise in a rising economy) and the price return is much higher at 5.49% during rate increase years versus -0.69% during rate decrease years including the Great Recession. We conclude that commercial real estate investments did much better in rising interest rate years as the economy was expanding with 61% higher employment growth rates during those rising interest rate years than in falling interest rate years.

## What Drives Commercial Real Estate Returns?

Knowing that economic factors drive real estate returns, we examine the correlations between the major macro-economic factors and commercial real estate total returns, income returns and price returns as shown in Table 2 below.

**Table 2**  
**Correlations with NCREIF 1977-2017**

	NPI Total Return	NPI Income Return	NPI Price Return
Interest	0.16	0.53	0.07
Inflation	0.33	0.36	0.28
Employment	0.57	0.18	0.55
GDP	0.46	0.39	0.40

Sources: NCREIF, BEA, BLS and Federal Reserve, 1977-2017.

Note that the total returns for commercial real estate have the highest correlations with employment growth and GDP growth, around 50%. The majority of this correlation is driven by commercial real estate's price change being tied to GDP and employment growth around 50%. Simultaneously, income returns increase with interest rates (53% correlation, but the price correlation with interest rates is a very low 7% and a moderate 28% with inflation).

However, people still think commercial real estate may have problems during rising interest rate periods so we look at the correlations during the 17 rising interest rate years and the 23 falling interest rate years. In Table 3, commercial real estate returns are most highly correlated with inflation at 58% and income with interest at 56% during rising interest rate years, proving once again that commercial real estate has risen with interest rates and has been a good hedge against inflation.

**Table 3**  
**NCREIF Correlations in Rising Interest Rate Years**

	NPI Total Return	NPI Income Return	NPI Price Return
Interest	0.11	0.56	(0.09)
Inflation	0.58	0.48	0.43
Employment	0.09	0.16	0.03
GDP	(0.14)	0.09	(0.17)

Sources: NCREIF, BEA, BLS and Federal Reserve, 1977-2017.

In Table 4, both GDP and employment have high correlations with commercial real estate during falling interest rate years. Remember that GDP and employment growth are usually negative for less than a year, but interest rates (which are manipulated by the government's Federal Reserve policies) can be held low or reduced for long periods of time to help stimulate the economy. It is clear that GDP and employment are both the most highly correlated economic factors to commercial real estate total returns and prices. This is logical since GDP and employment have a historic correlation to each other of 82% during this 40-year time period.

**Table 4**  
**NCREIF Correlations in Falling Interest Rate Years**

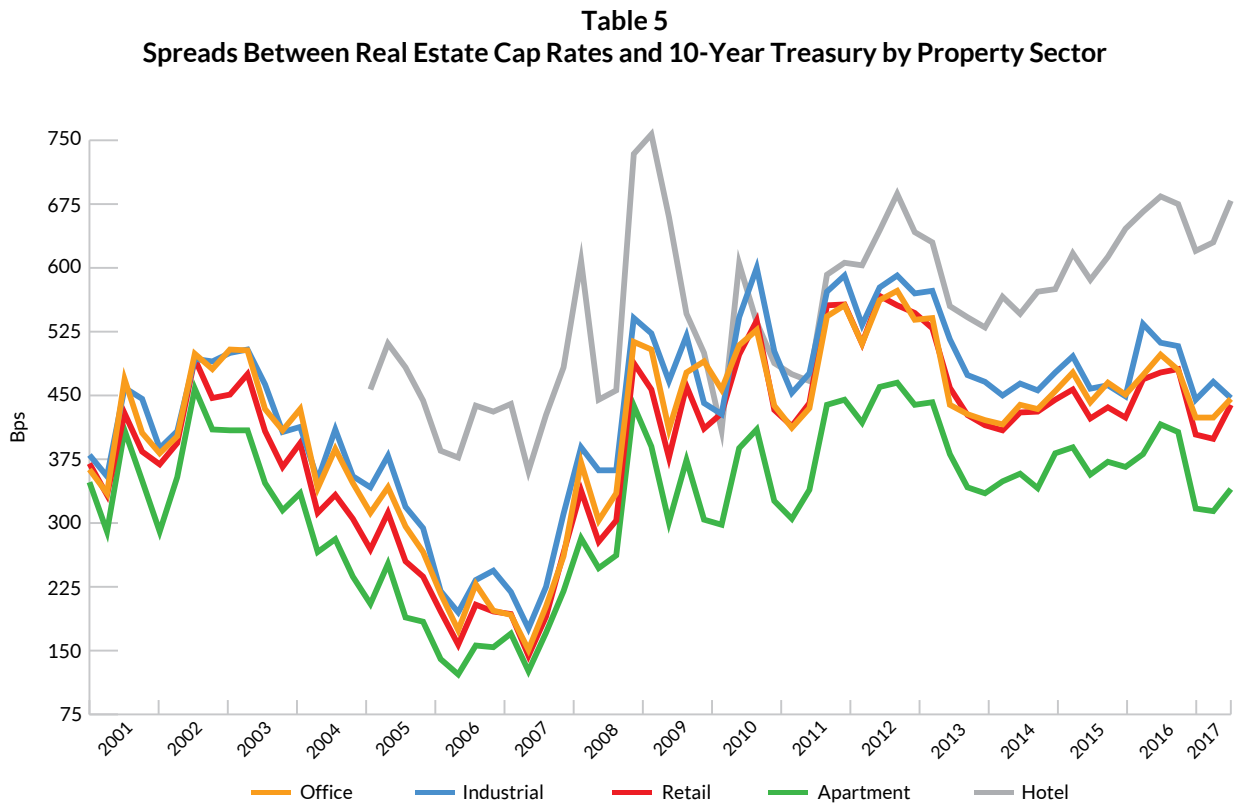
	NPI Total Return	NPI Income Return	NPI Price Return
Interest	0.01	0.43	(0.05)
Inflation	0.09	(0.11)	0.11
Employment	0.75	0.47	0.70
GDP	0.73	0.29	0.71

Sources: NCREIF, BEA, BLS and Federal Reserve, 1977-2017.

## Conclusion

While investors are concerned with rising interest rates having negative effects on both the debt market and financial stocks, it is quite clear that rising interest rates have had a positive effect on commercial real estate investments over the past 40 years and five economic cycles. (The effect on publicly traded REITs may be different.) It is clear that the higher cost of interest on mortgages that commercial real estate investors may incur during rising interest rate years was more than offset by the increases in overall income appreciation (from increasing occupancies and rents) as well as the price appreciation that commercial real estate provided to investors. Investors should be much more focused on demand for commercial real estate, as indicated by the high return correlation with GDP and employment growth than by interest rate changes.

Currently, commercial real estate yields as depicted by cap rates are much higher in comparison to the government's current 10-year Treasury "risk-free rate." As shown in Table 5, the spread (or additional yield return) that is being paid to commercial real estate investors makes commercial real estate investments more attractive than other fixed income or bond alternatives. There is also room for interest rates to rise while cap rates stay the same — causing "spread" to compress to levels as it has in history.



Source: Real Capital Analytics, 2Q 2017.

Income-producing commercial real estate is expected to perform very well in an improving economy, even if the Federal Reserve continues their interest rates increases, which is in question due to the slow U.S. economic growth and continued low inflation. Commercial real estate buyers may be wise to invest in commercial real estate when they can finance with long-term fixed mortgage debt and lock in the current low interest rates still available. Commercial real estate equity returns have historically been better during rising interest rate years, partly because buyers were able to lock in lower fixed debt costs, while enjoying increased incomes from better occupancies and higher rents in expanding economic periods.

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