WILLIS INVESTMENT COUNSEL
Principled Investing

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WHAT HAPPENS TO STOCKS WHEN INTEREST RATES RISE?

Despite conventional wisdom to the contrary, historically stocks have not necessarily performed poorly when interest rates rise.

Because we are seven years removed from the *Great Recession*, it has been a forgone conclusion of many that by now interest rates would have substantially increased. Typically, following a recession consumers begin to spend more, companies invest more, and people re-enter the workforce – each putting upward pressure on prices thus forcing inflation and interest rates higher. But that has not happened. Interest rates have only crawled above their *crisis* lows and are still meaningfully below long-term average levels. The continued economic improvement, coupled with the Federal Reserve's signaling of rate hikes, has once again rekindled the fear of higher interest rates and its perceived negative impact on stocks. So, we have examined the historical impact of rising interest rates on stock prices.

DO RISING INTEREST RATES NECESSARILY CAUSE POOR STOCK RETURNS?

The Bottom Line:

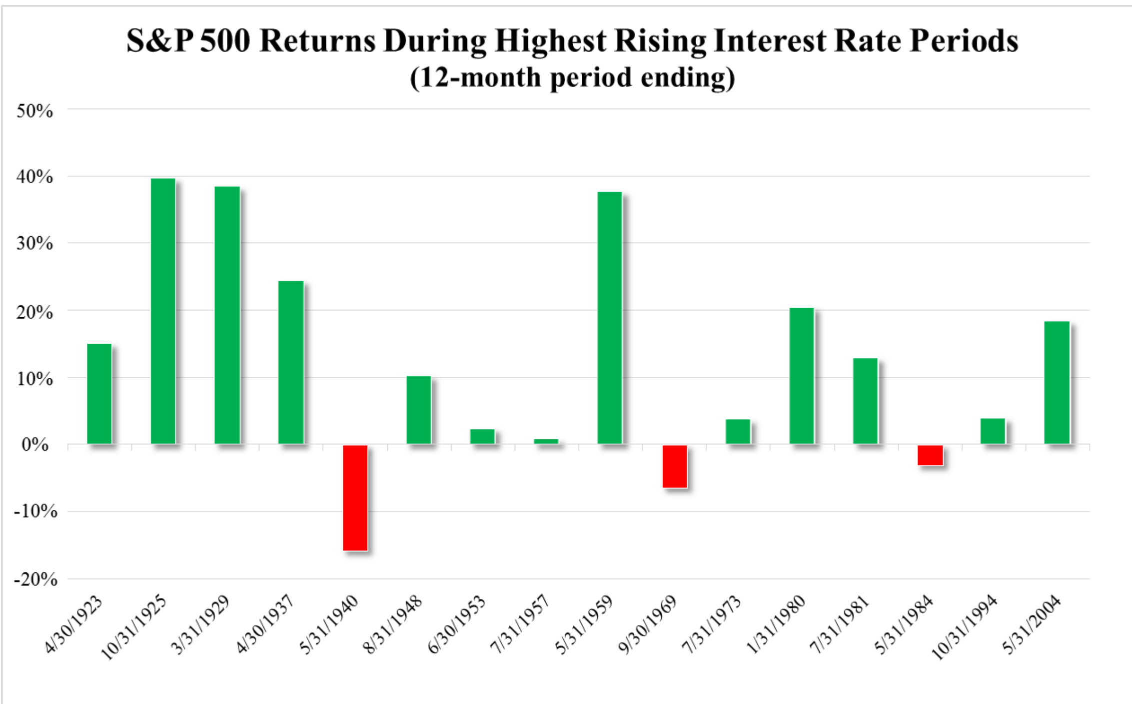
- Stocks have often performed well during interest rate increases
- Stocks performed well in nominal and real (after inflation) terms over the three-decade period when rates increased from 2.5% to 15%
- The worst decade for stocks in real terms occurred during a period of declining rates
- It is difficult to attribute stock market performance (cause-and-effect) to rising or falling rates

A stock's intrinsic value is generally determined by estimating all of its future cash flows and discounting them back to the present. The math of this calculation is a higher interest rate (the discounting rate) reduces, inter alia, a company's stock value. This makes sense in theory, but we wanted to know, historically, if rising interest rates have actually hurt stocks? To understand the relationship of rising interest rates and stock prices, we examined what happened during short-term rate cycles as well as long-term ones.

EXAMINING SHORT INTEREST RATE CYCLES TO EVALUATE HOW RISING RATES IMPACT STOCKS

A study[i] that examined stock performance since 1920 during periods when interest rates rose the most revealed the following surprising results:

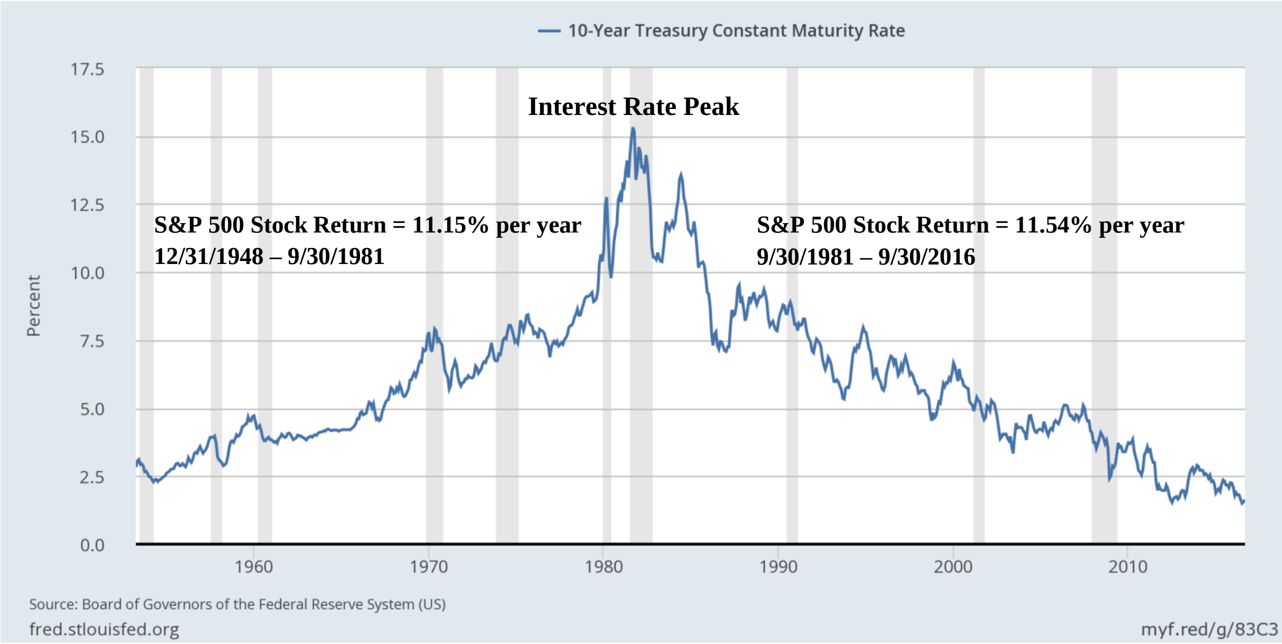
- Stocks only declined in 3 of the 16 periods of rising rates. The frequency of having a positive year for stocks was 81% versus only 73% for all periods since 1920.
- The average return for the S&P 500 when interest rates increased the most was 12.62%, higher than the 12% return for all periods during the study.



It will surprise many that over long periods of market history, stocks performed slightly better during periods of rising rates versus during all periods of time. Said another way, history does not support the notion that rising rates are necessarily "bad for stocks".

EXAMINING LONG INTEREST RATE CYCLES TO EVALUATE IF RISING RATES IMPACT STOCKS

It is also helpful to examine the multi-decade periods before and after the last peak in interest rates, which occurred in 1981. The 30 years leading up to 1981 showed a rise in rates from 2.50% to 15%, while the following 35 years showed a fall to 1.60% (as of 9/30/2016).



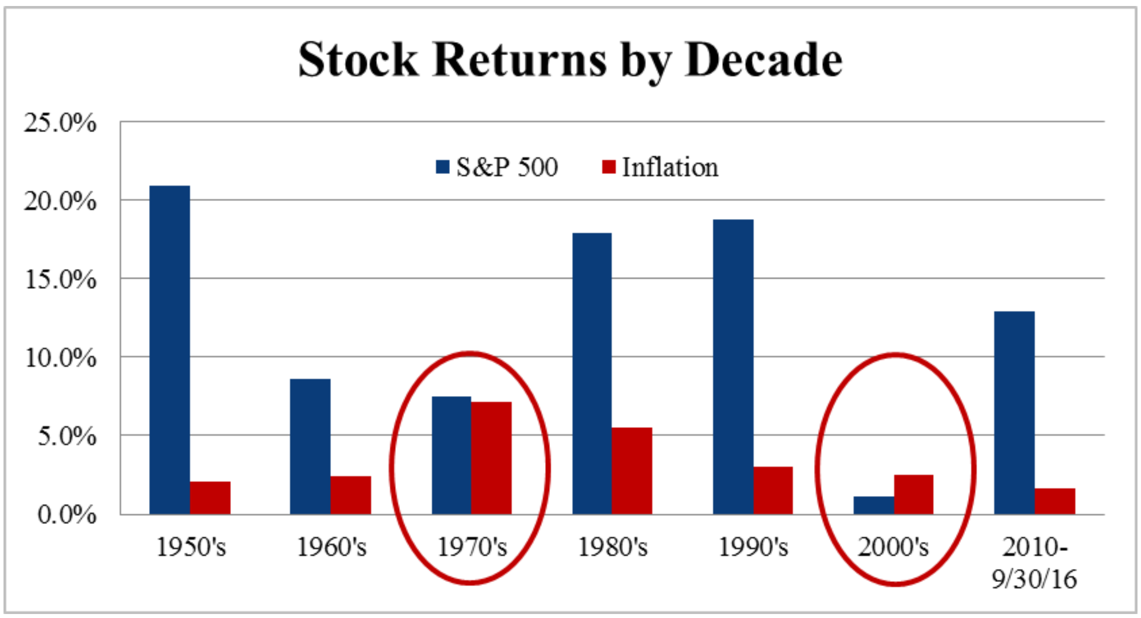
Despite these diametrically opposite interest rate environments, stocks had very similar annualized returns for both periods:

- **11.15%** for 33 years leading up to 1981 (12/31/1948 - 9/30/1981)
- **11.54%** for 35 years after 1981 (9/30/1981 – 9/30/2016)

Again, the historical evidence does not support the notion that rising interest rates necessarily cause poor stock returns.

THE *REAL RETURN* OF STOCKS

Analyzing stock returns during different interest rate cycles reveals some misconceptions about their historical relationship, but is still incomplete. Investors should ultimately care about how much return they achieve *after* inflation. To illustrate, consider the 1970's when stocks averaged 7.5% per annum. This is a fairly respectable return by itself, but after adjusting for inflation (subtracting 7.2%), the ***real return* was virtually zero**[ii]. As shown below, **stocks had attractive real returns in most decades, despite the vast differences in inflation**.



Revisiting the 33 years of rising rates that peaked in 1981, and the subsequent 35 year decline in rates, the **real returns were 6.95% and 8.64% respectively**[iii]. Taken in conjunction with the real return data for the last 6.50 decades, the key observations follow:

- Although stocks did better during the declining rate environment, **the returns after inflation were very attractive under both periods**
- Surprisingly, the **worst period of real returns occurred during the 2000's when rates were declining**
- It is **very difficult to pinpoint rising or falling interest rates as a determinant of stock market performance**

CONCLUSION

Despite conventional wisdom to the contrary, historically stocks have not necessarily performed poorly when interest rates rise. Therefore, we are not basing portfolio decisions on conventional wisdom that has inadequate statistical support. Instead, we are relying more on our fundamental analysis of companies and the risk-reward profile of the overall portfolio, especially reflecting our intrinsic value analysis.

Brett Slattery, CFA

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[i] www.fa-mag.com/news/what-happens-to-stocks-when-interest-rates-rise-15468.html - Article by Rob Brown, CFA
[ii] Inflation data is the year over year change of monthly Consumer Price Index. Decade is determined by using a *simple average* of all months during a particular decade. Data provided by the St. Louis Fed http://research.stlouisfed.org/fred2/series/CPIAUCSL/
[iii] 6.95% (11.15% - 4.2% inflation – which is the average monthly inflation) for 33 years leading up to 1981 and 8.64% (11.54% - 2.90% inflation) for 35 years after 1981