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Don’t Sweat the Fed

Federal Reserve rate change decisions have zero effect on markets long-term

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Key Takeaways

- **Common wisdom holds that Federal Reserve interest rate policy change have a large effect on equity returns.** Common wisdom is provably false in this case.
- **We found that even extreme rate tightening or easing had no statistical correlation with future equity returns.**
- **The best ways an intelligent investor can prepare for Fed rate change decisions are:**
    - Ignore pundits
    - Understand how a company generates value
    - Be greedy when others are fearful

Introduction

Common wisdom holds that Federal Reserve interest rate policy changes have a large effect on equity returns.

The Fed represents, many believe, the ultimate market traffic light. If the Fed raises short-term rates, the signal turns red and the market slams on its brakes; if the Fed loosens (by embarking on another round of Quantitative Easing, the light turns green and the market can continue on pedal-to-the-metal. Everyone takes this mental model for granted, but is it really true?

The simple answer: “Not at all.” Let’s look at the evidence.

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Experiment Design & Results

We pulled Fed data as far back as it went, paying special attention to six-month periods when short-term rates changed by more than half a percent (50 basis points)–either upward or downward. Then, we calculated the return of the S&P 500 index in the two years that followed each rate change.[1] If the Fed-as-traffic-light meme is correct, there should be a clear cause-and-effect relationship between rate changes and market returns.

Here is what a plot of Fed Rate changes (on the horizontal axis) and subsequent S&P 500 returns (on the vertical axis) looks like.

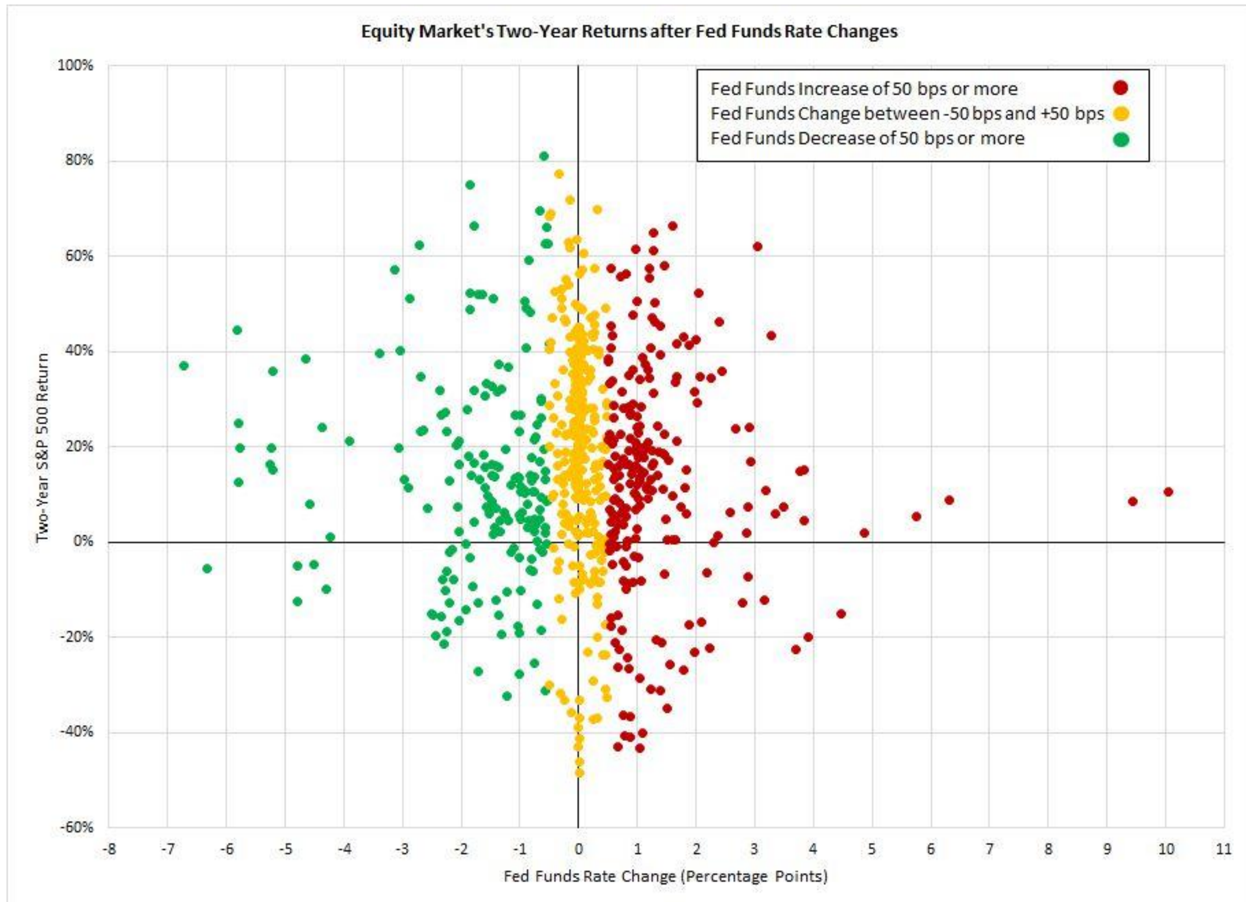

Figure 1. Source: Board of Governors of the Federal Reserve System, IOI Analysis

If there were a cause-and-effect relationship, we would expect this graph to look like a fuzzy line running from the top left of the page (high market returns associated with the most significant easing) to the bottom right (low market returns associated with the most significant tightening).

The fact that the chart looks like a shotgun pattern at 15 yards rather than a fuzzy diagonal line tells us right away that any cause-and-effect relationship between rate changes and market returns is very weak. In fact, from a statistical standpoint, the formal measure of correlation–termed the R-Squared value–between Fed rate changes and market returns is as close to zero as you will ever find, whether we look just at periods following tightening or easing, or across the entire series.[2]

Even though correlations were low, we decided to look at equity returns after significant Fed easing and compare those to equity returns after significant Fed tightening. Perhaps, we thought, there is not a strict correlation, but markets tend

[1] These rates and time frames are arbitrary. From my experience, the Fed tightening or easing by 50 basis points in a six-month period is a pretty big, sudden change. The two-year investment time horizon is reasonable for a value investor like myself.
[2] R-Squared and Adjusted R-Squared were both sides of 0.0, respectively for all the tests.

to do better after significant easing than after significant tightening. There is, it turns out, a very slight outperformance of the equity markets two years after significant easing compared to a significant tightening (13.8% vs. 13.0%), but statistically, this difference is not meaningful.[3] Visually, the data related to extreme tightening / loosening looks like this:

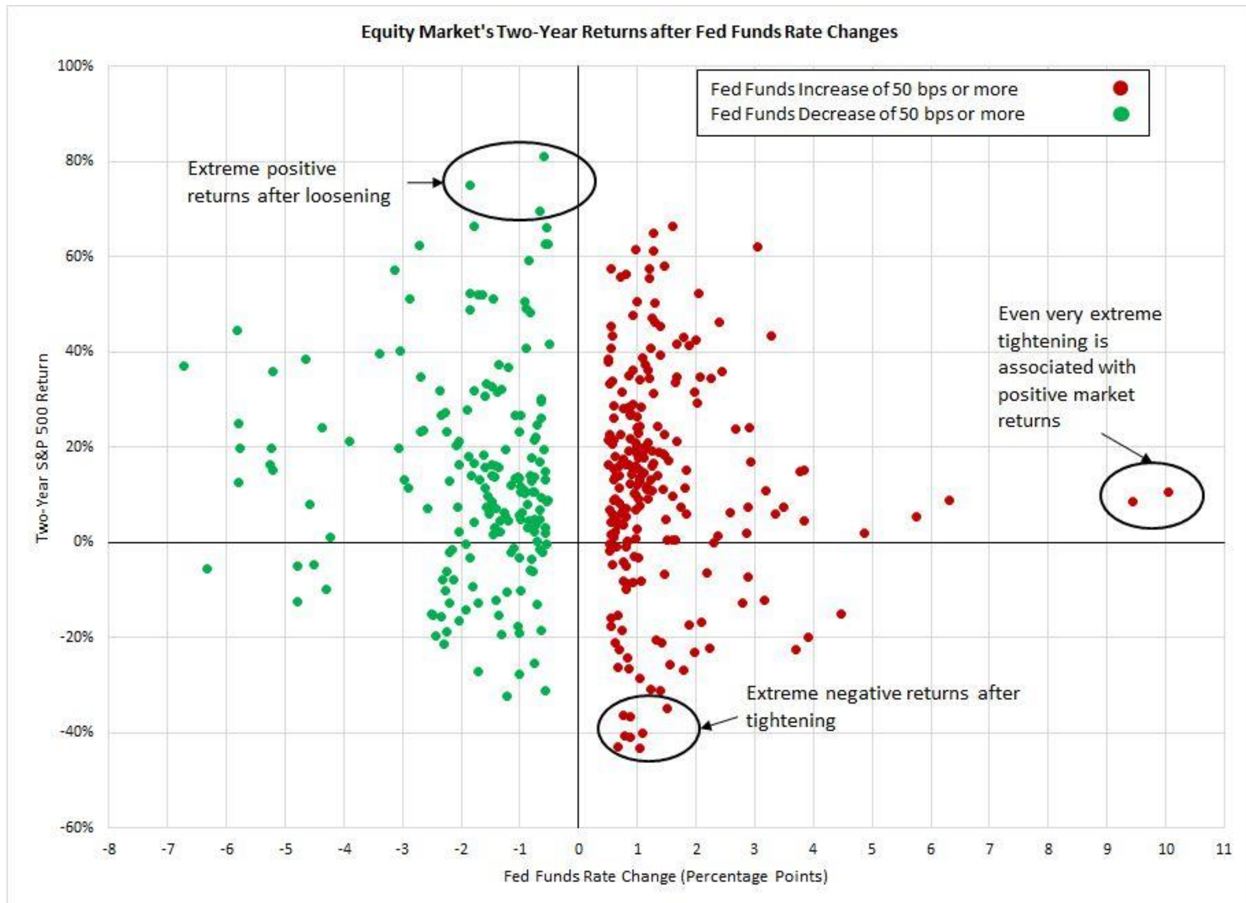

Figure 2. Source: Board of Governors of the Federal Reserve System, IOI Analysis

Despite the fact that the statistics say that the green dot pattern and the red dot pattern are indistinguishably random, we noticed a few clumps that looked suspicious–extreme negative returns (around -40%) associated with tightenings and extreme positive returns (around 75%) associated with easings.

It turned out that all of the extreme negative points are associated with two periods in history–the market crashes in the early 1970s and early 2000s. Most of us have a good sense of the contributing factors in the early 2000s–the irrational exuberance of dot.com riches–but recall that the early 1970s was a time with its own issues. The U.S. faced a losing war in Vietnam, the Bretton-Woods system was being abandoned, Nixon was taking the U.S. off the gold standard, and the Oil Crisis hit us full force. Blaming a Fed rate hike for subsequent market declines in light of large structural issues in the 1970s or the wild speculation of the early 2000s would be like blaming a Twin Peaks waitress for the Waco Bandidos-Cossacks bar brawl.

Similarly, all of the extreme positive points are associated with two points in history–bull markets in the early 1980s and 1990s. Again, there were plenty of external influences during these times that could reasonably have caused these bull market runs that were unrelated to Fed action. Giving the Fed the credit for engineering these two bull runs would be like paying the CEO of Exxon Mobil a $400 million bonus for being lucky enough to be the firm's top manager during a time when oil price went from $30 / barrel to $140 / barrel.

The bottom line from all these scatterplots and statistical analysis is this: **Fed rate changes don't have a significant impact on the market.** The market is instead driven by underlying economic conditions and sometimes by "animal spirits." Rate changes may scare the market "animals" in the short-run, but in the longer term signal economic growth,

[3] T-statistic was -0.33 versus a critical T-value for a one-tailed test of 1.65.

increased employment, rising demand for goods and services, greater utilization of assets, and eventually rising corporate earnings on behalf of owners of capital.

Recommendations

As an investor, how should you think about Fed rate decisions given this evidence? Here are my suggestions:

1. Ignore TV pundits and talking heads. The effect of a rate hike on equity returns is non-existent, so the only thing you stand to gain from listening to them opine is heartburn. There is always volatility around the time of a Fed rate decision, so don't be surprised if the market bounces around a bit. The point is that for investors with a reasonably long time horizon, this bouncing around doesn't matter at all unless you let it.

2. Understand how companies generate value. This process is not as opaque and terrifying as many make it out to be. There are only a few things that can change the value of a company long-term and if you can identify those drivers and learn how to estimate the value a firm can generate, you'll be far ahead of the investing crowd. Hint: company values generally do not change with a change in short-term rates.

3. Invest most when others are scared. As a friend of mine often says, investing is simple but it's not easy. When others are frightened about a Chinese slowdown or an impending Fed rate hike or a supply disruption of this commodity or that, their knee-jerk reaction is to unreasonably sell companies that can create a lot of value for their shareholders. It is hard to step into a falling market and buy shares when all others are selling. It's hard…unless you have a firm grasp of how value is created and how to measure it. Remember, great investors are marked by what they do during crises; spectacular returns in bull markets follow as a consequence, not a cause.

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