

Hiking Cycle: Navigating the Peaks

February 2024



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Abstract

Over the past five decades, the Federal Reserve has hiked interest rates to cool the economy and curtail inflation. However, has the Federal Reserve ever been successful in engineering a “soft landing?” In this paper, we will look at rate hikes, the impact on the economy and, subsequently, the impact on stock and bond markets. We have found that the rapidity and magnitude of past rate hikes have had significant but varied impacts upon future market performance.

Since 2020, we've observed notable fluctuations in inflation and interest rates contributing to short-term market volatility. While history doesn't offer a precise blueprint for the future, it does provide valuable insight into the cause-and-effect dynamics influencing our financial landscape. In this paper, we'll delve into the intricacies of historical hiking cycles and the resulting recessions, offering the reader a comprehensive understanding of the past to help guide future return expectations.

Rate Hike History

Our analysis takes us back to the early 1970s when return data became more abundant and accessible for investigation. Table 1 reveals seven distinct periods from 1972 to 2023 characterized by rising interest rates. Each of these rate hiking cycles possesses its own nuances, but the common thread is elevated inflation preceding the hike.

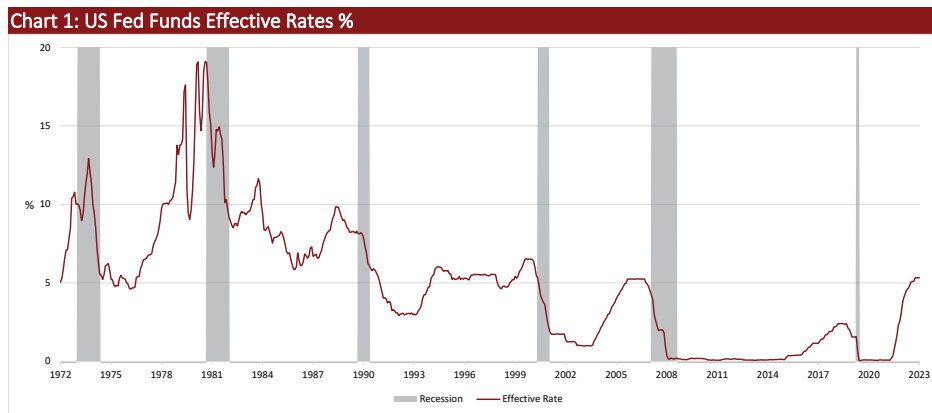
Peak Inflation Rate	Rate Hiking Cycle	Min	Start of Rate Increases	Max	End of Rate Increases	Number of Quarters	Velocity (bps/qtr)
12%	1972-1974	3.2%	1972 Q1	13.6%	1974 Q3	10	104
15%	1977-1981	4.5%	1977 Q1	19.5%	1981 Q2	18	84
5%	1987- 1989	6.0%	1987 Q1	10.0%	1989 Q2	9	44
4%	1993-2000	2.8%	1993 Q1	6.7%	2000 Q3	30	13
5%	2004-2006	1.0%	2004 Q1	5.3%	2006 Q3	10	43
3%	2015-2019	0.1%	2014 Q1	2.4%	2019 Q2	21	11
9%	2022-2023	0.1%	2022 Q1	5.3%	2023 Q3	6	88

* Sourced from Federal Reserve Bank of St. Louis & Trading Economics

Some hikes were sparked by unusual shocks that sent inflation soaring such as the 1972-1974 hiking cycle, which was caused by the OPEC oil embargo and the “Nixon Shock.” Others, such as the 1993-2000 hiking cycle, were the result of economic expansions that created asset bubbles, which led to elevated inflation. The Federal Reserve’s primary objective is price stability. Whether it was an unexpected shock or the natural ebb and flow of the economy, the Fed's response was to raise interest rates to curb economic activity and bring inflation to desired levels.

As Table 1 shows, periods with inflation shocks prompted faster hikes. The 1972-1974 and 1977-1981 rate hikes stand out with the highest velocity, seeing the fed funds effective rate rise over 80 basis points per quarter for both periods. These accelerated hikes were a hawkish response to the severity of the shocks that threatened to push inflation beyond the Fed's control.

Post-Hike Recession Timing



In our analysis of six rising interest rate environments, all six resulted in a subsequent recession. Chart 1 shows the Fed Funds Effective Rates since 1972 with the shaded periods being the recessions that followed. Now, the burning question emerges: After a rate hike, how long until the economy slows? A glance at Table 2 reveals a timeline ranging from two quarters before to five quarters after the Fed’s last hike. Assuming 2023’s peak fed funds rate is 5.33%, we can draw insights from specific historical examples to estimate the timeframe between the rate peak and the initiation of a recession.

Start of Recession	End of Recession	Length of Recession (Quarters)	Time to Recession (Quarters)*
Q1 1974	Q2 1975	5	-2
Q3 1981	Q4 1982	5	1
Q3 1990	Q2 1991	3	5
Q2 2001	Q1 2002	3	3
Q1 2008	Q3 2009	6	5
Q1 2020	Q2 2020	1	3

*Number of quarters from the last hike to the start of the recession

Based on the data above, there is an average gap of 2.5 quarters between the conclusion of a hiking cycle and the start of a recession. When we focus on the high-velocity, shock-driven rate hikes, we notice something noteworthy. The time it took to plunge into a recession from the end of the hiking cycle is remarkably shorter, portrayed by the two most aggressive cycles in the 1970s and early 1980s. As previously alluded to, the 1975 recession began before the 1972-1974 hikes ceased, and the US plunged into a recession within a quarter following the 1977 – 1981 hikes. These higher rates likely acted as a catalyst in hastening the arrival of the respective recessions. These data could indicate a shorter time-line for current recessionary concerns. Disregarding other structural differences between time periods, with the last hike in July 2023, historical data alone would suggest a recession in 2Q 2024. A recession would bring higher unemployment and an overall decline in economic activity.

Return and Volatility Trends

Examining return and standard deviation data reveals that during high-velocity rate hikes, volatility spikes in both stock and bond markets. Interestingly, there's no evidence to suggest that the speed of rate hikes dampens longer-term returns. In fact, our data indicate the opposite. As Table 3 and 4 show, following the highest velocity 1977-1981 hiking cycle, both the stock and bond markets boasted 5-year annualized returns of over 18%. While short-term volatility increased during and immediately after rates peaked, over three- and five-year periods, stock and bond returns surpassed their historical averages.

Now, let's apply these insights to the most recent hiking cycle, initiated in early 2022. Notably, this surge is the fastest since the 1972-1974 hiking cycle, exhibiting a velocity of 88 basis points per quarter. This was due to a significant external supply shock – the COVID-19 pandemic and subsequent supply chain disruptions, pushing the US inflation rate to approximately 9%. In response, the Federal Reserve aggressively raised interest rates. From March 2022 to the present, the federal funds effective rate skyrocketed from 0.08% to 5.33%. This scenario aligns with the archetypical "shock, fast hike, and fast ensuing long recession" cycle.

Table 3: S&P 500 - Post Hike Returns				
	6 Month Return	12 Month Return	3 Year Return	5 Year Return
1972-1974 Hiking Cycle	-0.3%	17.4%	12.3%	10.6%
1977-1981 Hiking Cycle	-3.9%	-11.4%	10.8%	19.4%
1987- 1989 Hiking Cycle	20.4%	19.2%	14.8%	13.9%
1993-2000 Hiking Cycle	-8.7%	-14.8%	-11.2%	-2.4%
2004-2006 Hiking Cycle	8.9%	15.1%	-5.8%	0.8%
2015-2019 Hiking Cycle	4.2%	0.9%	13.8%	9.4%

Table 4: Bloomberg Aggregate - Post Hike Returns				
	6 Month Return	12 Month Return	3 Year Return	5 Year Return
1977-1981 Hiking Cycle	6.1%	13.3%	14.5%	18.5%
1987- 1989 Hiking Cycle	9.2%	12.3%	12.2%	11.9%
1993-2000 Hiking Cycle	7.4%	11.2%	10.1%	7.4%
2004-2006 Hiking Cycle	3.7%	5.3%	6.4%	6.6%
2015-2019 Hiking Cycle	5.7%	10.8%	0.4%	-0.8%

**Sourced from DeMarche*

While this analysis primarily focuses on the velocity of rate hikes and its correlation with the timing of subsequent recessions, it's crucial to address the yield curve inversions that often follow rising rate environments. We've noted that the most profound inversions tend to follow higher velocity rate hikes. When the Federal Reserve accelerates short-term interest rate increases, we've observed that the long end of the yield curve tends to remain anchored for a couple reasons.

Firstly, the higher short-term rates can be interpreted as a signal of lower future inflation. Consequently, the long end of the curve assumes a scenario of lower rates in the future. Additionally, real returns on bonds are more attractive when inflation expectations are lower, which can drive the price of the 10-year Treasury higher. Secondly, there's the flight to safety aspect. The 10-year Treasury is considered a safe haven during times of uncertainty. If a high-velocity rate hike is perceived as an indicator of troubling economic conditions in the foreseeable future, money may flow into the 10-year Treasury, driving its price up and its yield down.

We found that the depth and length of the inversion impacted the severity and length of the subsequent recession. Our analysis suggests that the current inversion between the 2- and 10-year Treasuries, preceded by a series of accelerated rate hikes, may indicate a more severe subsequent recession. However, as the analysis showed, there was no evidence that post-rate hike recessions should lower return expectations in the long run.

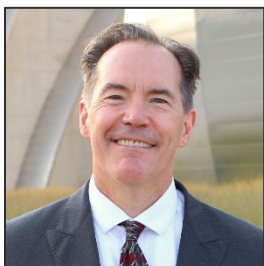
Conclusion

Our analysis reveals crucial insights into the connection between inflation shocks, interest rate hikes, and economic recessions. It's evident that inflation shocks act as catalysts, triggering rapid interest rate hikes, which often cause deep yield curve inversions, subsequently expediting the path to a recession. However, there's a silver lining in our data: the reset induced by past recessions consistently produces favorable five-year risk-adjusted returns.

During and immediately after a hiking cycle, we typically see short-term volatility and lower returns. However, the market tends to correct and perform well over longer periods following a recession. Considering these historical trends, after our last hike in July 2023, we can anticipate elevated short-term volatility, average to above-average five-year returns, and the possibility of a recession in mid-2024. It's crucial to note that the effects of a recession are usually noticed toward the end of the downturn.

Put Research To Work

with the DeMarche Team



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Sources Utilized:

- *Federal Reserve Bank of St. Louis*
- *Yahoo Finance*
- *DeMarche*



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