

INVESTMENT NOTE

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PERFORMANCE OF INVESTMENT STYLE FACTORS DURING PERIODS OF FALLING US POLICY RATES

INTRODUCTION – THE CURRENT CYCLE OF US POLICY RATE CUTS

In March 2022, the US Federal Reserve (Fed) embarked on a cycle of interest-rate hikes from the 0% lower bound, which was the level the key policy rate reached in March 2020 at the start of the Covid-19 pandemic. Higher policy rates were aimed at reining in the increase in inflation fuelled by fiscal stimulus and the strength of the US economic recovery.

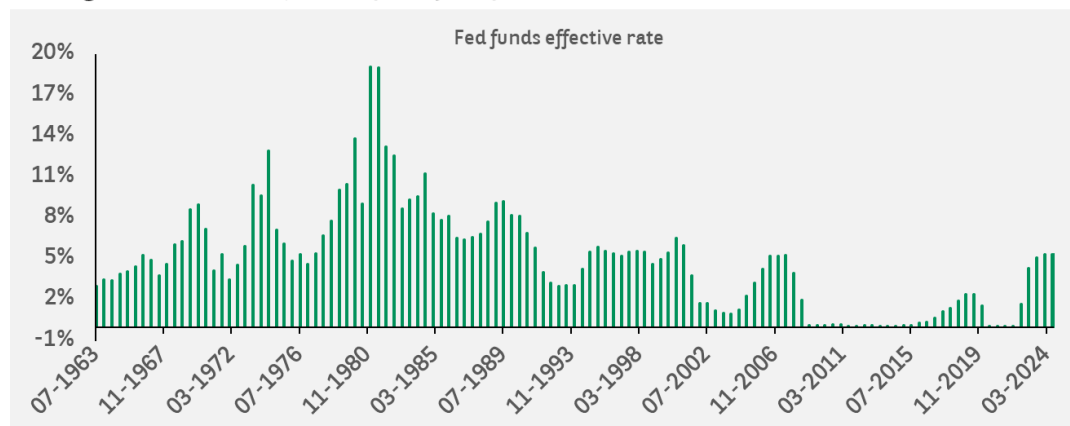
The rising rate cycle ended in June 2023 with the benchmark federal funds rate in a range of 5.25% to 5.50%. The Fed has been credited with having successfully managed monetary policy to drive core inflation down towards its 2% target without severe damage to the economy.

After signs of a weakening US labour market, the Fed signalled a change of direction in September 2024 and started – with a ‘jumbo’ cut of 50 basis points – setting off a cycle of rate cuts.

Exhibit 1 shows the historical path of the fed funds rate since July 1963. It is worth noting how the Fed has managed its main monetary policy tool with significantly less volatility over the last 30 years compared to the swings that occurred in the years from 1963 to the mid-1980s.

Exhibit 1

Changes in the level of the key US policy rate, 1963-2024



Source: St. Louis Fed (FRED). Changes in the federal funds effective rate from July 1963 to August 2024



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WHAT DO CUTS IN POLICY RATES MEAN FOR STYLE FACTORS?

Each cycle of rate cuts has its own specificities and must be analysed in the context of the prevailing macroeconomic environment. However, it pays to look at previous episodes to grasp the potential impact of rate cuts on the US equity market. In particular, we want to assess what rate cuts could mean for investment style factors such as value and momentum that can help to explain returns and risk within asset classes.

To do this, we collected monthly returns for each cycle for the US equity market (in excess of cash) as well as the well-known Fama-French five-factor model (Fama and French (1993, 2015)^{1,2}) including size, profitability and investment, jointly considered as 'quality', and the momentum factor (Carhart (1997)³). We also added the historical value factor (high-minus-low – HML) and the volatility factor. We then built a long-short portfolio that goes long on the value-weighted first decile and quintile of stocks based on stocks' variance, and short on the last decile and quintile, with a 50% allocation in deciles and quintiles.

By construction, the factors may show some non-trivial market exposure, especially the low-volatility factor, which has a large and negative market beta. We beta-hedge each factor and scale it to achieve a 2.5% annualised volatility on average; both based on estimation over a 12-month rolling period. This scaling and hedging allows us to analyse factor time series over a long period that are comparable with the risk and tracking error budgets we implement in our multi-factor strategies.

Finally, we consider a multi-factor portfolio that would allocate 25% of its assets to the value, momentum, low volatility and quality factors, respectively. These allocations are scaled to achieve the same level of volatility of 2.5%. With this, we can measure the effect of factor diversification in the context of declining policy rates.

We identified 11 episodes of prolonged rate cuts by the Fed since July 1963. Exhibit 2 summarises the results. On average, the length of these cycles was 1.6 years and policy rates were cut by 4.8%. On average, the equity market returned 4.4% (taken as the annualised average of monthly returns and averaged across cycles of decreasing rates). In contrast, over the entire period (July 1963 to August 2024), the annualised average performance of the US equity market was 7%. Not surprisingly, on most occasions, cycles of US rate cuts were a response to an economic slowdown or outright financial crisis:

- In the recent past, the rate cuts used by the Fed to help the economy through the pandemic come to mind: Key policy rates were cut from 2.4% in mid-2019 to effectively 0% in March 2020 and the US stock market posted an annualised average return for the period of -0.56%.
- During the Global Financial Crisis in 2008, the Fed cut policy rates from 5% to almost 0% and the equity market posted an annualised return of -37.4%.
- During the bursting of the dotcom bubble, the Fed brought rates down from 6.5% in the last quarter of 2000 to 1% in the summer of 2003. The US equity market fell by around 11% over the period.

¹ Fama, E. and French, K. (1993). "Common Risk Factors in the Returns on Stocks and Bonds", *Journal of Financial Economics*, 33, 3–56.

² Fama, E. and French, K. (2015). "A five-factor asset pricing model", *Journal of Financial Economics*, 116, Issue 1, 1–22.

³ Carhart, M. M. (1997). "On Persistence in Mutual Fund Performance", *The Journal of Finance*, Volume 52, N° 1

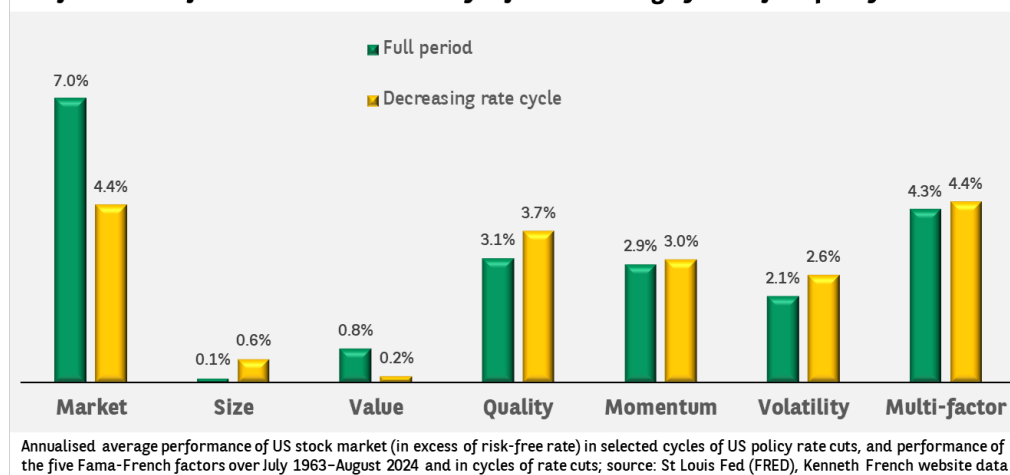
Exhibit 2**Performance of US stock market and investment style factors during cycles of US policy rate cuts**

Decreasing rate cycles			Fed rate (%)			Factors (%)						
Start	End	Period in years	Start	End	Change	Market	Size	Value	Quality	Momentum	Volatility	Multi-factor
nov-1966	sept-1967	0.8	5.8	4.0	-1.8	26.2	5.1	-1.0	0.0	2.0	-2.7	-0.9
août-1969	févr-1971	1.5	9.2	3.7	-5.5	-1.5	-0.5	0.6	5.5	0.9	4.7	3.7
juil-1971	janv-1972	0.5	5.3	3.5	-1.8	18.5	0.5	-0.7	4.8	3.2	2.0	3.8
juil-1974	mars-1975	0.7	12.9	5.5	-7.4	13.4	2.7	3.1	3.1	-1.2	-2.0	1.9
mars-1975	févr-1977	1.9	5.5	4.7	-0.9	10.9	2.0	2.9	2.7	2.2	0.2	4.7
juil-1981	janv-1983	1.5	19.0	8.7	-10.4	3.3	3.3	2.2	6.9	8.0	3.5	11.2
juil-1984	oct-1986	2.3	11.2	5.9	-5.4	19.2	-3.4	4.7	7.9	4.8	8.5	9.5
mai-1989	déc-1992	3.6	9.8	2.9	-6.9	6.9	-1.5	-1.5	6.0	5.7	4.2	6.2
sept-2000	août-2003	2.9	6.5	1.0	-5.5	-11.1	4.0	1.3	2.1	0.5	-0.7	1.3
août-2007	janv-2009	1.4	5.0	0.2	-4.9	-37.4	1.4	-3.6	2.3	5.2	9.3	8.2
juil-2019	avr-2020	0.8	2.4	0.1	-2.4	-0.6	-7.4	-6.3	-0.5	1.7	2.1	-0.8
Average in decreasing rate cycles			8.4	3.6	-4.8	4.4 (63.6%)	0.6 (63.6%)	0.2 (54.6%)	3.7 (90.9%)	3 (90.9%)	2.6 (72.7%)	4.4 (81.82%)
Average in full period			3.0	5.3	2.3	7.0	0.1	0.8	3.1	2.9	2.1	4.3

Annualised average performance of the US stock market (in excess of risk-free rate) during selected cycles of US policy rate cuts, and performance of each of the five Fama-French factors over the full period (July 1963 – August 2024) and during the cycles of cuts in policy rates; source: St Louis Fed (FRED), Prof. Kenneth French website data library

Contrary to the US equity market as a whole, factors did not show, on average, any substantial decrease in their returns. Most of them benefited from rate-cutting cycles. For example, the average annualised performance of quality was 3.7% during rate-cutting cycles. This compares with its long-term annualised average of 3.1% over the full period.

Similarly, size (0.6% vs. 0.1%), momentum (3.0% vs. 2.9%) and volatility (2.6% vs. 2.1%) all benefited from falling policy rates, posting average annualised returns in line with or higher than their long-term returns, as we can see from both Exhibit 2 and Exhibit 3.

Exhibit 3**Performance of US stock market and style factors during cycles of US policy rate cuts**

Only the value factor showed lower returns when interest rates were decreasing: 0.2% versus 0.8% over the long term. It should be noted, however, that the academic version of value we consider here only considers book-to-market value data. Adding multiple indicators based on cash flows and earnings captures the essence of value better and has yielded superior results. Furthermore, the performance of the value factor can suffer from strong sector biases. Removing such biases can lead to better results overall (see, for instance, Bellone and Leote de Carvalho (2002)⁴).

Obviously, there is significant volatility around the averages, and each rate-cutting cycle has shown a different pattern. However, when we look at the number of occasions when the market and factors have generated positive performance, we clearly see that all factors, with the exception of value, have had a positive performance in the large majority of occurrences.

For example, quality and momentum showed a positive performance on 10 out of 11 occasions (giving them a success rate of 90.9%), while low volatility had a positive performance in eight out of 11 occasions (i.e., 72.7% of the time).

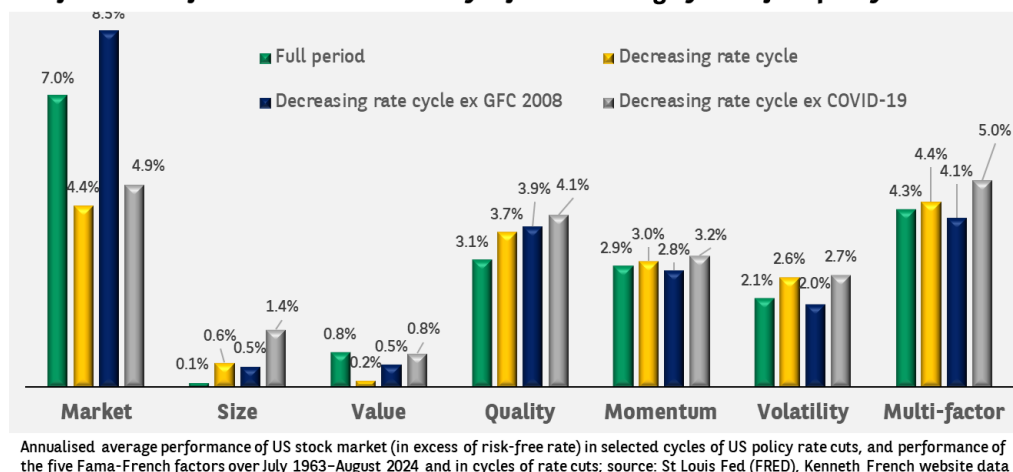
Thanks to its diversification, the multi-factor portfolio achieves the highest returns among the factors, at 4.4%, which is in line with its long-term average of 4.3%. Falling policy rates therefore seem to have little to no impact on multi-factor portfolios⁵.

Given the limited number of episodes, it is possible that specific outcomes could distort the averages we show in Exhibit 3, particularly if we consider the impact that the Global Financial Crisis (GFC) in 2008 or Covid-19 in 2020 had on equity markets. Exhibit 4 shows the averages if we remove these two episodes from the average performance of the market and the factors when rates decrease.

⁴ Bellone, B. and Leote de Carvalho, R. (2022), « Value versus Glamour Stocks: The Return of Irrational Exuberance? », The Journal of Investing February 2022, 31 (2), 75-93

⁵ See, for example, <https://viewpoint.bnpparibas-am.com/multi-factor-equity-strategies-that-outperform-when-rates-rise-whats-inside/>



Exhibit 4**Performance of US stock market and style factors during cycles of US policy rate cuts**

Remarkably, even when excluding the GFC and Covid, quality, momentum and low volatility held up well: their performance is relatively robust compared to the performance including those episodes. With respect to size and value, we see that both the GFC and Covid-19 had a significant impact. As these episodes were essentially unprecedented in the history of financial markets, we can see that without them, the premium of these two factors increases significantly.

From an historical perspective, then, periods of declining policy rates have produced, on average, disappointing returns for the US equity market, mainly because cuts in policy rates are the consequence of action taken to counter economic or financial crises. The link is therefore not causal (i.e., declining policy rates do not necessarily cause lower stock market returns). Yet, cuts in policy rates have not reduced the expected premia for equity factors, which, in most cases, effectively benefited from lower rates.

The case for small-cap companies and **the size factor** is easy to grasp from an economic standpoint: smaller companies tend to benefit from lower rates as they generally borrow at floating rates. They also tend to need external capital to fund their expansion and operations. This should be less expensive when rates are declining (see, for instance, Banditti (2024)⁶).

The case for profitability (**the quality factor**) is also relatively clear: in an environment where policy rates are falling due to an economic slowdown, quality stocks carry a premium for their resilience and the fact that their profitability protects their business. These companies can also look to expand when opportunities arise through merger & acquisitions.

The slight decrease in performance for **the value factor** compared to its long-term average reflects the impact of market downturns on value stocks. However, they tend to recover fast.

The **volatility factor** is, in our view, the most intriguing case. On the one hand, low-volatility stocks tend to be concentrated in sectors that have historically benefited from falling policy rates (consumer staples or utilities, for instance), even though their supposed sensitivity to interest rates is not as significant as one might expect (see, for instance, De Franco (2017)⁷).

Finally, during cycles of falling policy rates, we tend to see a substantial increase in market volatility and stock dispersion. Under these conditions, there are clear winners and losers from lower policy rates, giving **the momentum style** many opportunities to exploit. Not surprisingly, momentum's correlation to quality and volatility increases under these conditions.

It appears therefore that in an environment of falling policy rates, most equity factors, on average, do well, especially when compared with their long-term average returns.

⁶ Fandetti, M. (2024) "Small Caps, Large Caps, and Interest Rates", CFA Institute

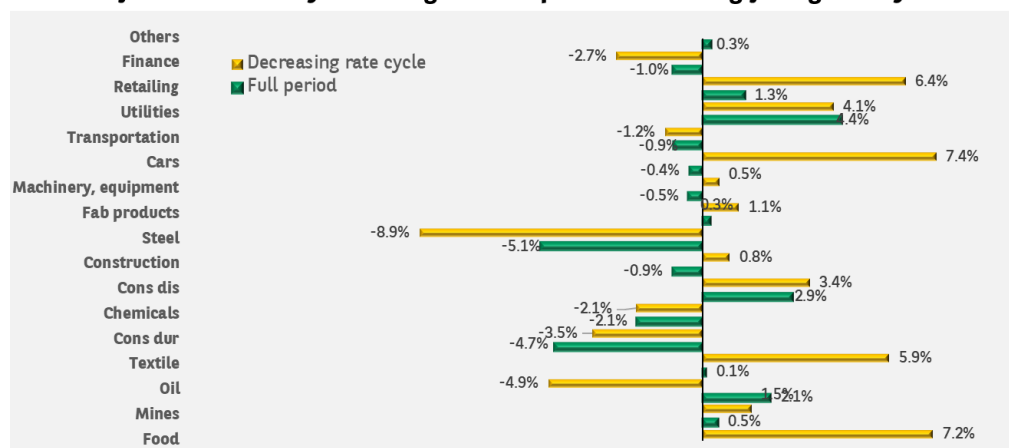
⁷ De Franco, C., Monnier, B. and Rulik, K (2017). "Interest Rate Exposure of Volatility Portfolios", Journal of Index Investing, Vol. 8, N° 2, 53-67

CLEAR WINNERS AND LOSERS AMONG EQUITY SECTORS

The same cannot be said for sector portfolios. More precisely, stocks in different business sectors may show substantially different reactions to changes in policy rates. Our research shows that utilities or consumer staples tend to do well during cycles of falling policy rates. We arrived at this conclusion by collating the monthly returns for 17 US Standard Industrial Classification (SIC) sector portfolios and then adjusting for their market beta – as we did for the investment factors – with no volatility scaling. As with the factors in Exhibit 3, we computed average (cross-cycle) annualised excess returns and compared the results with their long-term average. The results are shown in Exhibit 5.

Exhibit 5

Return of sectors over July 1963–August 2024 period and during falling rate cycles



Source: St. Louis Fed (FRED). Changes in the federal funds effective rate from July 1963 to August 2024

As Exhibit 5 shows, there is a significant difference in the risk-adjusted excess return of the 17 sector portfolios. This is the case both when we consider the full period and when we look only at specific episodes of falling policy rates.

For instance, traditional defensive sectors such as food clearly benefit from lower policy rates. Interestingly, we see substantial increases for consumer discretionary, textiles and retailing. On the other hand, falling rates affect oil, steel and finance. As might be expected, when falling policy rates are the consequence of slowing economic activity or a financial crisis, cyclical sectors suffer the most.

CONCLUSION

In conclusion, each episode of falling policy rates happens within its own context. On a small number of occasions, cuts to US policy rates came in response to declining economic activity. In other cases, rates were cut simply as part of a normalisation of monetary policy. It is likely that the current cycle is due more to the latter than the former. Time will tell.

However, from a simple analysis of past episodes, we see compelling evidence that declining interest rates are either neutral or supportive of equity investment style factors, especially quality, momentum, volatility and size.

Value generally performs below its long-term average because rate cuts followed large market drawdowns, which is (so far) not the scenario that is currently unfolding.

Unlike factors, we see significant shifts in sector beta-adjusted performance. Periods of falling policy rates tend to produce clear winners and losers. Getting the sector allocation right is therefore key for investors to achieve their objectives.

For factor investing, we believe changes in the interest-rate environment have no visible negative impact. On the contrary, they may even be supportive of performance. Although this analysis does not include transaction costs and market impact, it shows that from an historical perspective, factors – and especially multi-factor approaches – may benefit from such a scenario. Furthermore, adjusting for structural sector exposures and biases can improve the outcomes we can expect from multi-factor strategies.

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