150-Year Analysis: What Happens to Equities When Inflation Strikes

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The quick rise in consumer prices following the pandemic disrupted decades of low inflation globally and sparked equity volatility that investors still struggle to navigate. While inflation has settled down, it has stubbornly stayed above central banks' targets of around 2%. High inflation can cut out the bulk of a portfolio's return, making it a paramount concern for investors.

To better understand how inflation impacts investors' portfolios, we examined the sensitivity of equity returns to inflation over nearly 150 years, from 1875 to 2023. A rigorous analysis of inflation's impact on investing requires this extensive history because periods of high inflation have been rare. Before the pandemic, global inflation had hovered around 2% for 50 years, never exceeding 4% from 1990 to 2020. In fact, there have only been a few periods of significant inflation in the past 150 years: the 1880s, after World War I, around World War II, the 1970s oil crisis, and most recently since the end of 2021.

To provide a more diverse view of options for investors' portfolios beyond the broad stock market, we investigated the inflation sensitivity of common equity factors. These five equity factors — notable for their ability to outperform historically — are small caps, value, momentum, low volatility equities, and quality. We also combined these factors equally into a single multi-factor portfolio.

The Sensitivity of Performance to Inflation

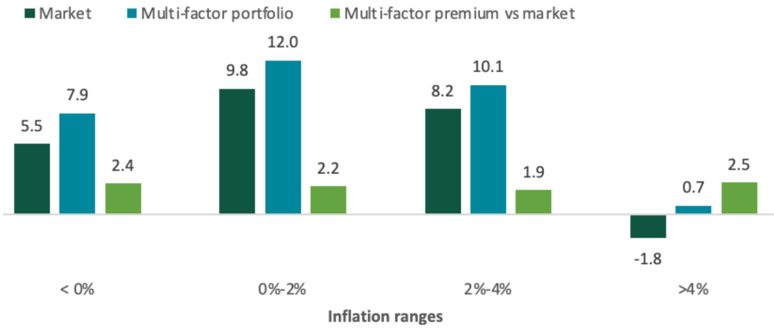
Over the full period, equities returned 8.3% a year on average before inflation, with inflation averaging 3.3%. Notably, the five equity factors all delivered a performance premium (outperformed the broad market) with average annual returns ranging from 9.4% for small caps to 11.7% for momentum. The multi-factor portfolio yielded a robust annualized return of 10.6%.

To see how varying levels of inflation impacted the equity market and these premiums, we examined equity returns across four inflation buckets: 1) below 0%, or deflation, 2) between 0% and the current central bank target of 2%, 3) a mild inflation overshoot, between 2% and 4%, and 4) high inflation, above 4%. We show the results in Exhibit 1. Notably, equities performed the best in periods of low-to-moderate inflation but turned negative in times of high inflation.

In contrast, equity factor premiums demonstrated consistent performance across the varying levels of inflation. Exhibit 1 shows that the multi-factor strategy delivered positive real annualized returns across all inflationary scenarios, averaging a 2.3% premium over the broad market. The multi-factor portfolio provided real returns of 7.9% in deflation, 12.0% in moderate inflation, 10.1% during in an inflation overshoot, and 0.7% in high inflation (when the broad market averaged a loss).

Exhibit 1: A Multi-Factor Premium Across Inflation Levels

Real Annualized Returns (%) in Inflation Ranges from 1875 to 2023



Source: Northern Trust. Factors are simulated. Data from January 1875 until November 2023, except for the quality factor which starts in 1940. The multi-factor series includes all factors available at each point in time. We used the dataset on U.S. equity factors compiled by Baltussen, Vidojevic & van Vliet (2023), and combine this with data from Wahal (2019). We extend this data until November 2023 with data from the Kenneth French data library to include the most recently made available data. Returns are inflation-adjusted, in annual terms, in U.S. dollars and averaged across inflationary scenarios. **Past performance is not indicative of future results.**

Performance During the Recent Inflation Spike

While a very short time frame in context of this study, it's worth looking at what's happened in the most recent period of high inflation. Inflation during 2021, 2022, and 2023 was 5.0%, 8.0%, and 3.6%, respectively. During that three-year period, the value, momentum, low volatility, quality, and the multi-factor portfolios outperformed the market while small caps underperformed. The performances of value and quality stand out the most, with the market lagging these factors by over 5%.

We also split the sample into two scenarios: 1) when inflation is high but decreasing and 2) when inflation is high and increasing. In both scenarios, all factor portfolios show positive real returns with the exception of small caps in the increasing inflation case. The multi-factor portfolio outperformed the market by 3% on average annually in both cases.

How Equity Factors May Help Mitigate Inflation Damage

Our analysis shows a history of positive real stock returns during periods of deflation and moderate inflation. However, stocks had losses during periods of high inflation, presenting a substantial challenge for investors. In contrast, factor premiums exhibit a noteworthy consistency across all inflation regimes, with minimal variation in average returns. While this might sound unexciting, it underscores that factor investors, on average, experienced less vulnerability to inflation. History shows that investors who construct their equity portfolios using equity factors can outperform the market amid low or moderate inflation and mitigate the damage when high inflation strikes.

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This analysis is based on Northern Trust Asset Management's 2024 paper "Navigating Inflation — An Analysis of Equity Factor Performance over 150 Years" by Baltussen, Vidojevic, and van Vliet