ARE HIGHER INTEREST RATES A BOON FOR VALUE?

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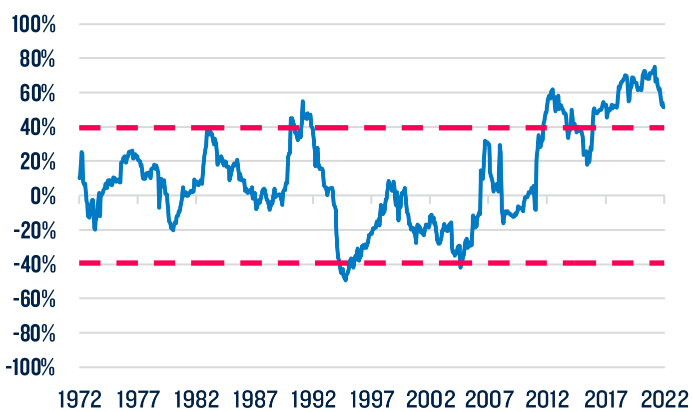
Interest Rates and Value Factor Performance

While 2022 shaped up to be better for value investment strategies[1] than recent years, the strategy's outperformance came during a period of rising interest rates, just as value's recent underperformance occurred during a period of falling interest rates. The strong correlation between the value factor and interest rates (Figure 1) over the past 10 years versus a relatively benign historical relationship has puzzled many market commentators and participants.

Figure 1: Value's Performance Correlates With Interest Rate Moves



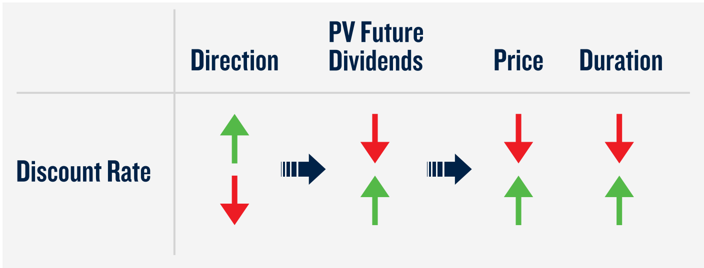
Note: Dashed red lines represent the 1% significance level for the 36-month rolling correlation coefficient. When correlations are greater than the upper line or less the lower line, they are statistically different from zero.

Source: FactSet, Ken French Data Library.[2] Data as of 12/31/2022.

We find that the disproportionate impact of low and falling interest rates on cheap stocks versus expensive stocks is a major driver of the increasing correlation. Under a simple stock pricing model[3], falling discount rates (holding all else equal) increase the present value of future dividends as well as the stock price. Future dividends are more sensitive to changes in discount rates than near-term dividends. Therefore, since future dividends make up a greater share of the value of a stock, the stock price becomes more sensitive to changes in interest rates or has a higher duration. Although duration is most often associated with bonds, it is also possible to calculate for stocks.

Figure 2 summarizes the relationship between discount rates and duration.

Figure 2: As Interest Rates Rise, Stock Values Fall[4]



All else equal, cheap stocks typically have higher expected returns and thus higher discount rates, whereas expensive stocks will generally have lower expected returns and discount rates. The relatively higher discount rates of cheaper stocks are consistent with less stock value coming from the stock's future dividends. As a result, cheaper stocks generally have shorter durations than expensive stocks.

That is, expensive stocks tend to be more sensitive to changes in discount rates, which is consistent with historical experience. During volatile market environments where risk premia rise, expensive stocks have sold off by more than cheaper stocks.

[1] Those going long cheaper stocks and short expensive stocks.
[2] https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html
[3] Valuing the stock as a growing perpetuity.
[4] A more detailed discussion is available in Time-Varying Duration and the Value Factor Correlation with Interest Rates.

Moreover, the effect outlined in Figure 2 is non linear. A decline in interest rates when they are low generally increases the duration by more than when rates are high. When discount rates are high, compounding makes the present value of future dividends quickly fall to zero. As rates decline, the present value of future dividends disproportionately gains in value.

This non-linear effect carries over to the analysis of cheap and expensive stocks. If the discount rate of both cheap and expensive stocks declines by the same amount, then the non-linear effect results in a larger duration increase of expensive stocks than that of cheap stocks. In other words, the lower the level of interest rates, the more sensitive expensive stocks become to changes in interest rates. And the lower interest rates get, the bigger the effect.

So in a period of low interest rates, expensive stocks will tend to be more sensitive to interest rate changes than cheap stocks. All else equal (and under this simple model), falling interest rates will tend to cause expensive stocks to outperform cheap stocks, while cheap stocks are likely to outperform expensive stocks in a rising rate environment. As a result, the correlation between returns to value strategies and interest rates will likely increase.

This helps explain value's performance in the period from 2009-2020, characterized by low and declining interest rates, though it is impossible to hold everything equal. During this time, investors bid up prices of expensive stocks beyond what would be expected solely from falling risk-free rates. As prices of expensive stocks rose, their sensitivity to interest rates likewise increased, contributing to the elevated correlation between rates and the value factor. From this perspective, the widening valuation gap in recent years (as expensive stocks outperformed cheap stocks) was driven by both falling interest rates as well as by changes in investors' perceptions of risk.

Conversely, during periods of higher interest rates, the differences in the durations between cheap and expensive stocks becomes more modest. Measuring the effects of interest rates on value investment portfolios is increasingly challenging when correlations are closer to zero.

Looking ahead, the low interest rate regime from the end of the 2007-2008 recession to the COVID-19 pandemic appears to be coming to an end. Supply chain constraints, monetary and fiscal stimulus, and the surge in energy costs associated with Russia's war in Ukraine sent inflation in developed economies to its highest level in decades by the middle of 2022. Global central banks – initially behind the curve in responding to the threat of inflation – hiked rates swiftly to bring it under control. Longer-term interest rates climbed, pricing in a higher expected path of short-term interest rates.

With inflation still uncomfortably above targets, central banks remain on a rate hike trajectory, for now. Our research suggests that as markets respond to this new economic regime of higher inflation and rates, particularly long-term rates, the strong correlation between the value factor and interest rates is likely to break down. But the effect of rising long-term rates would not be isolated to its impact on correlation; the higher interest rates climb, the less sensitive the value factor becomes to changes in interest rates, making longer-term predictions difficult. So while the environment of low and falling rates generally contributed to underperformance for cheap stocks, all else equal, current macroeconomic fundamentals may no longer serve as a headwind in a higher rates regime.

References

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