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The relationship between Value and Inflation

- What underpins the Value/Inflation Relationship
- Understanding the Value Cycle
- Relative performance of Value in different inflationary regimes

As the global economy reels away from a year of lockdown, economies are facing up to the prospect of medium-term inflation, in part propelled by the vast trove of monetary stimulus injected into markets at unprecedented scale and speed by central banks. The initial period of market recovery saw cyclical, value-orientated stock valuations depressed as their growth equity counterparts have raced to bounce back. Yet as the prospect of inflation has become more tangible, within equity allocations there has been a notable rotation to value. This begs the question, what is the relationship between inflation and value? Is this relationship stable and persistent or does value's resurgence represent a transitory case of "catch-up"?

The Value-Inflation Relationship

There are a number of arguments that have been made to throw weight behind the positive relationship between the outperformance of Value stocks during higher inflationary regimes.

1.The Duration Argument: The prospect of higher inflation has the direct implication of higher interest rates as central banks primary concern is meeting their targeted inflation benchmark, which typically lies around 2%. Higher interest rates lower the expected return on stocks, as investors discount future cash flows and lower valuations. Inherent in the name 'growth', these stocks rely on cash flows that extend further into the future and hence are more proportionally affected by interest rate discounting. In comparison, value stocks have a shorter duration and are more profitable in the short-run, as such, their valuations are less affected by rising interest rates and their risk/return profile looks more rosy to portfolio managers.

2. The Leverage Argument: Typically stocks with a high book-to-market ratio (value equity) are leveraged to a greater extent than stocks with low book-to-market. This leverage is typically dependent on fixed-rate interest payments, of which its value is eroded during inflationary periods. This phenomenon is typical in all markets as inflation rebalances income in favour of debtors as the purchasing power of interest payments declines.

3. The Profitability/Dividend Argument: Shorter duration, value stocks are more profitable in the short run and hence are better equipped to return capital to investors. Typically, value is distributed back to investors in the form of dividends, which, for the most part, have been suspended during 2020. As dividend payments return to the fold in 2021, value stocks will typically distribute earnings in a more consistent, incremental manner adding to a progressive demand pressure on the stock

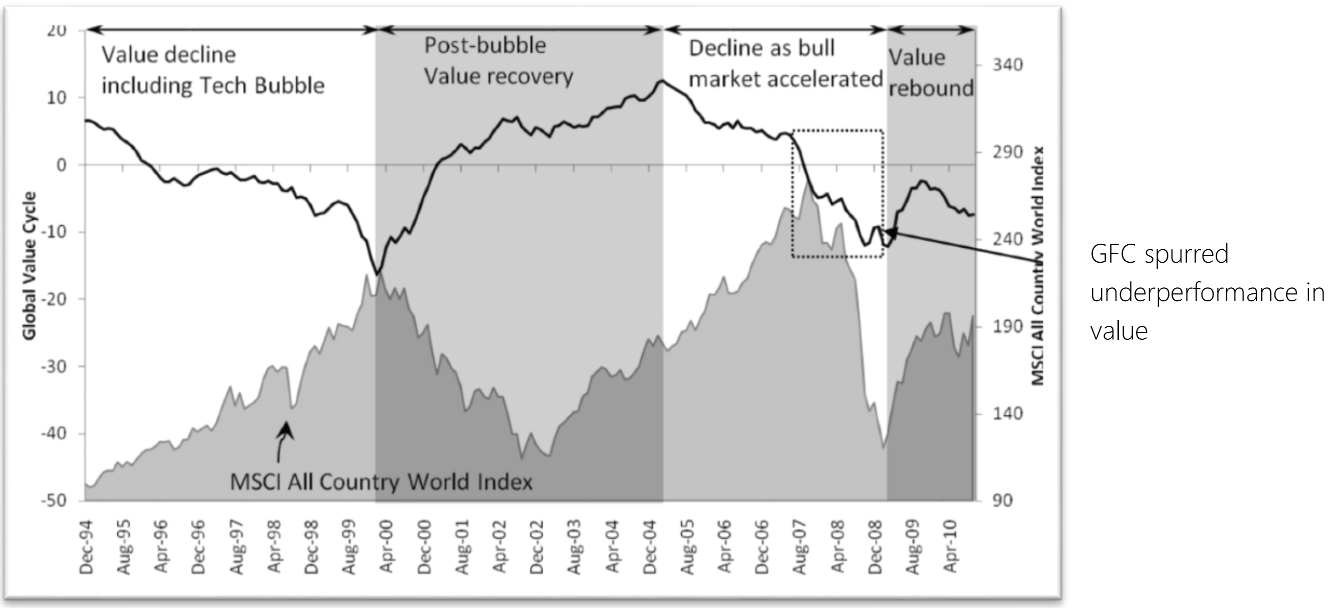
price. Furthermore, profitable value stocks are better placed to cope with inflationary pressures as they possess more competitive advantage and have more wriggle-room with respect to increasing the prices of their products.

The Evidence – The Value Cycle

Value stocks received their first breakthrough in several seminal papers by Nobel laureates Fama & French (1993, 1997), which alluded to a persistent outperformance of value stocks over growth stocks. Since these publications, value stocks have attracted a large volume of interest due to the persistent source of outsized returns. Yet since the Global Financial Crisis, value has failed to replicate the outperformance of the past and has chronically underperformed other factors, particularly Momentum.

Value stocks, like many asset classes in finance, are subject to cyclical periods of outperformance. According to research by Owyong (2011), this cycle has seemed to manifest itself in 4 phases. The first period occurred in the 1990s, coinciding with a spur in growth of technology stocks as value's performance waned. Consequently, after the tech bubble burst in 2000, value saw a resurgence which lasted for five years. The great bull run of 2005-2008 saw a period of relative underperformance which was exacerbated in the wake of the Global Financial Crisis in 2008 and the low interest rate, low inflation regime that followed. The final period of relative outperformance occurred in the economic recovery immediately following 2008, confirming the expectation that value stocks tend to perform well coming out of recessions. However this outperformance than lapsed and ultimately lagged other factors in the low interest rate/low inflation environment that followed the Financial Crisis from 2009 to 2020. We look at the longer-term relationship between Value and Inflation between 1929 and 2020 later in this article.

Fig.1. Financial crisis – and low interest rate/inflation regime – spurred underperformance in value



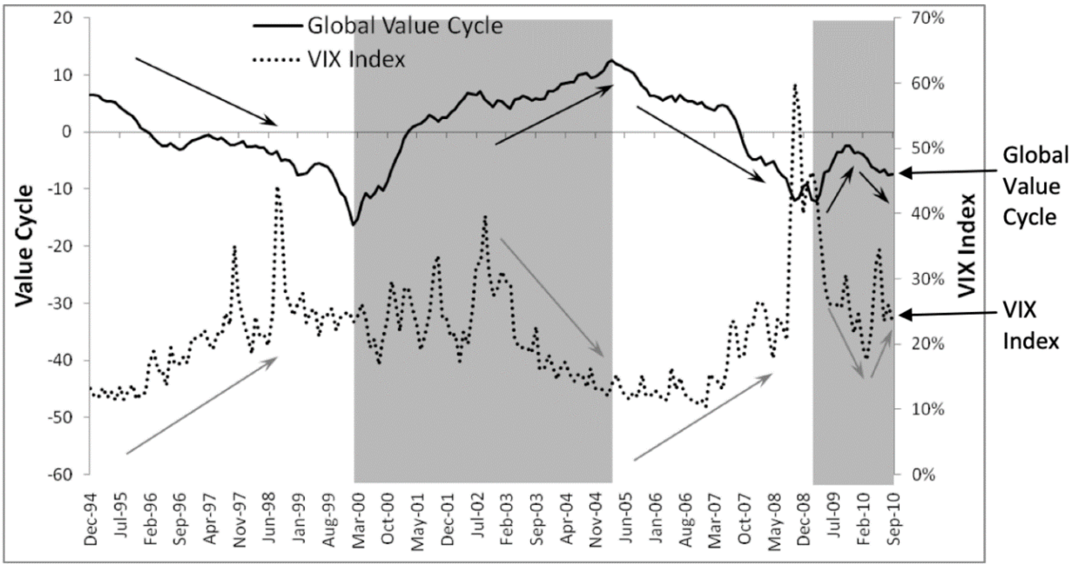
Source: MSCI and CBOE, Owyong 2011

The value cycle rests orthogonally to the general market cycle which raises the question of what drives the performance of value stocks? As one would expect, interest rates have been a key driver of cyclical manifestation, with interest rate cycles providing a good start for explanation of the value cycle. In the late 1990s, the Federal Reserve and central banks in other developed economies kept interest rates high to curtail inflation when economic growth was strong, but they cut rates following the tech bubble burst in 2000. This was accompanied by a relative decline in value stocks before 2000. When the Federal Reserve began to hike rates again in 2004, the value cycle peaked within nine months before tailing off.

Value rotation and risk aversion

According to Owyong, the second driver of the value cycle is market risk aversion, whereby investors seek refuge in the predictability of future cash flows within the value contingent when global markets seem to upend themselves. As we can see from Figure 2, the value cycle generally moved in the opposite direction from risk aversion, as measured by the VIX.

Fig.2: Relationship between Value cycle and Risk aversion



Source: MSCI, Owyong 2011

Research suggests that there is a historical cyclical relationship between outperformance in value stocks and the interest rate cycle in tandem with the prevailing degree of risk aversion in the market. Yet, the recent rotation into value has been more fervent than in previous cycles and can be seen as an outlier - Average correlation between value vs growth with respect to yield changes over 5 decades has been 0.07, over the past three years it has been 0.55.

The reasons for such a drastic allocation rotation are still up for debate. However, with the re-opening of economies imminent and consumer and business spending accelerating the pre-eminent question remains the prospect of higher interest rates. Concerns around inflation outlook is a driver behind the relative outperformance of value and this relationship and will remain a focus for investors in the medium term.

Relationship between Growth, Value & Inflation

Fig 3: Recent relationship between growth and value stocks

Source: Elston research, Bloomberg data

[Swedroe (2021)] looked at the long-term relationship between inflation and the Value premium – especially, the period from 1927 and 2020, for which robust US market data exists – to assess the relationship between Value and Inflation. He discovered a positive link between inflation and the value stock premium. Then, when he looked at the value premium across different 'inflation regimes,' he discovered that it was 3.1 percent when inflation was between 0 and 3 percent, but it was 6.6 percent when inflation was above 3 percent.

When inflation was above normal, the Russell 1000 Value index beat the Russell 1000 Growth index by 2.7 percent; when inflation was below average, it underperformed by 3.2 percent. Inflation tends to rise when the economy is booming – and decrease when the economy is languishing – thus value equities are more economically sensitive than growth stocks.

Similarly, [Research by DeSpirito (2021) of BlackRock] has broken down the relative performance of Value by inflationary regime in the US (now the bulk of world equities) from 1927 to 2020 and found that Value equities have historically delivered strongest outperformance during highest inflationary regimes (inflation >4.4%), moderate outperformance during middling inflationary regimes (1.1%-4.4%). By contrast, the relative performance of Value is weakest to marginal when inflation is very low <1.1%. This is summarised in the chart below.

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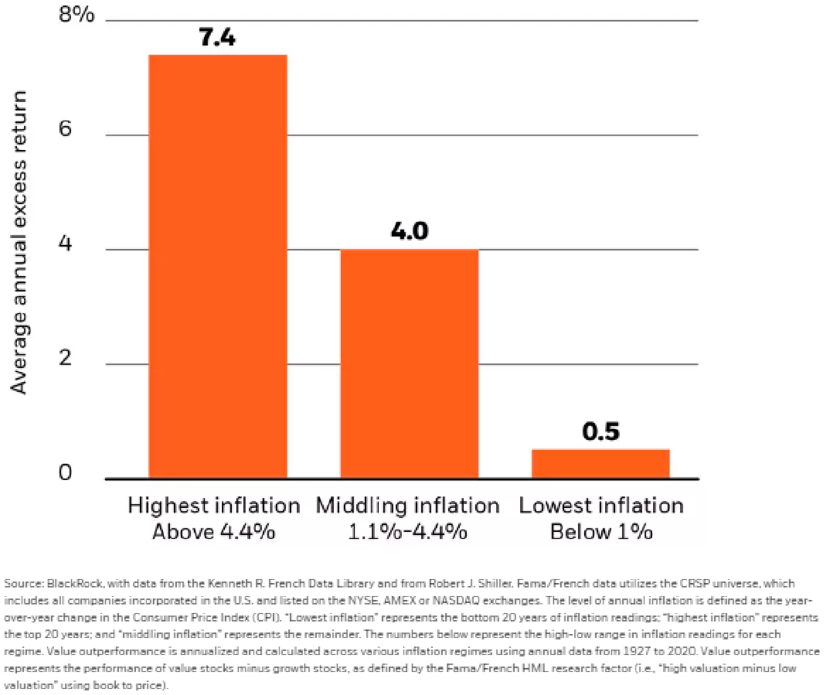
Fig.4. Value outperformance by inflation regime, 1927-2020



Source: DeSpirito, BlackRock research, (Febuary 2021)

Inflation through a Factor lens

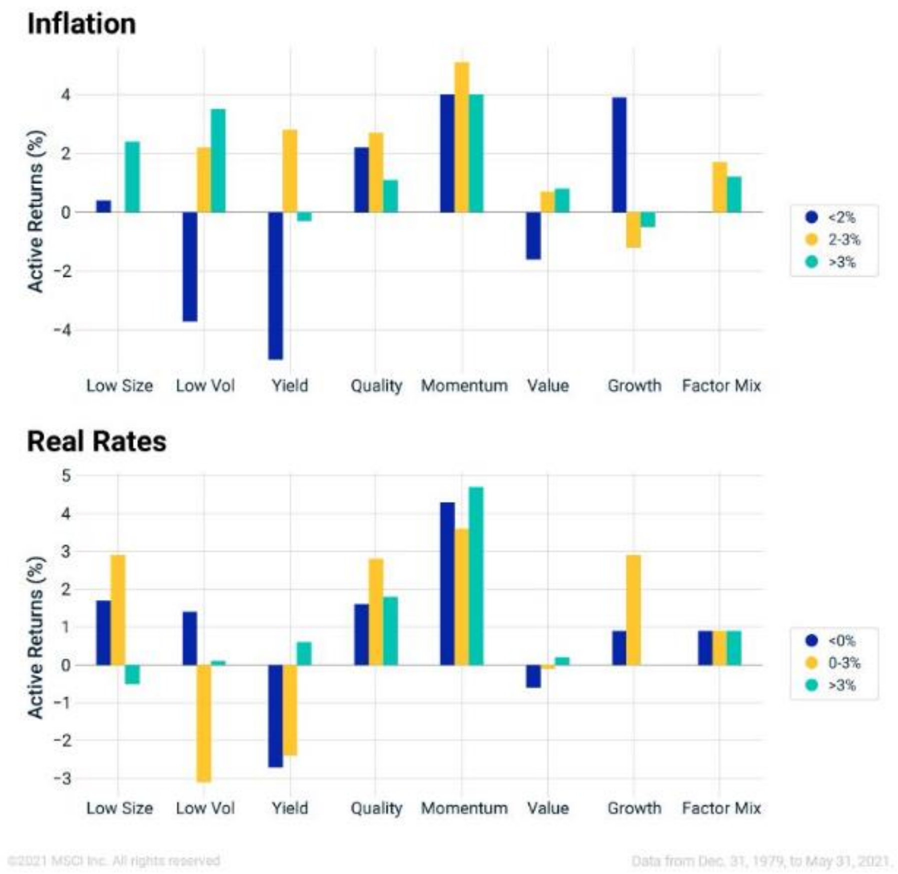
Inflation is a macro factor, but we can look at the relationship between inflation and real rates through the lens of equity style factors.

In a recent publication MSCI Research looked at how different equity style factors for world equities have performed in different inflationary environments from Dec. 31, 1979, to May 31, 2021. They found that low size, low volatility and value style factors performed best during periods of higher inflation, while growth performed best during inflationary regimes.

Quality and momentum style factors were less sensitive to inflation and outperformed the parent MSCI World Index in all inflationary scenarios, and had positive active returns in terms of real rates.

When real rates have been low and positive, growth and low size have performed well; low volatility outperformed when real rates were negative.

Fig.5. Return percentage with respect to inflation and different style factors



Source: MSCI 2021

Growth produced positive active returns in low-inflation (2%) contexts and negative active returns in moderate- to high-inflation (2%) environments, as seen in the graph above. Because investors expected growth equities to have larger longer-term cash flows, and inflationary periods are generally accompanied by higher interest rates, an inverse link may have emerged.

Value equities, on the other hand, have profited in high-inflation conditions because they have stronger prevailing cash flows. (Virgaonkar and D Varsani, 2021)

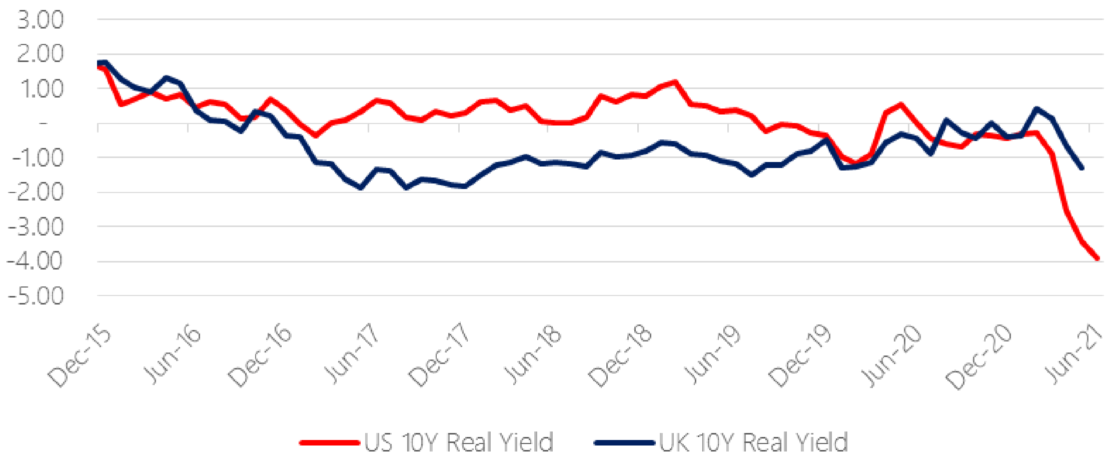
The sensitivity of dividend yield to inflation was mixed; higher inflation, which is frequently associated with higher rates, could have stifled yield strategy performance. If dividend pay outs were tied to inflationary periods, however, these consequences might have been mitigated.

Low volatility outperformed in both moderate and high-inflation contexts, possibly because corporate cash flows were favourably impacted by inflation. In all scenarios, quality and momentum were less responsive to inflation and outperformed. On average, an equal-weighted mix of all the elements diversified away inflation sensitivity and generated a positive active return.

In all situations involving real rates, both quality and momentum produced positive active returns. A factor mix with identical weights was likewise unaffected.

When real rates were negative, smaller and expanding enterprises may have found themselves borrowing at a lower rate than their growth in pricing power, resulting in outperformance, while low volatility may have benefitted investors migrating from fixed income to equities with a lower risk appetite. (Kirrage, 2021).

Fig.6. Real interest rates in US and UK – supportive of Low Volatility factor?

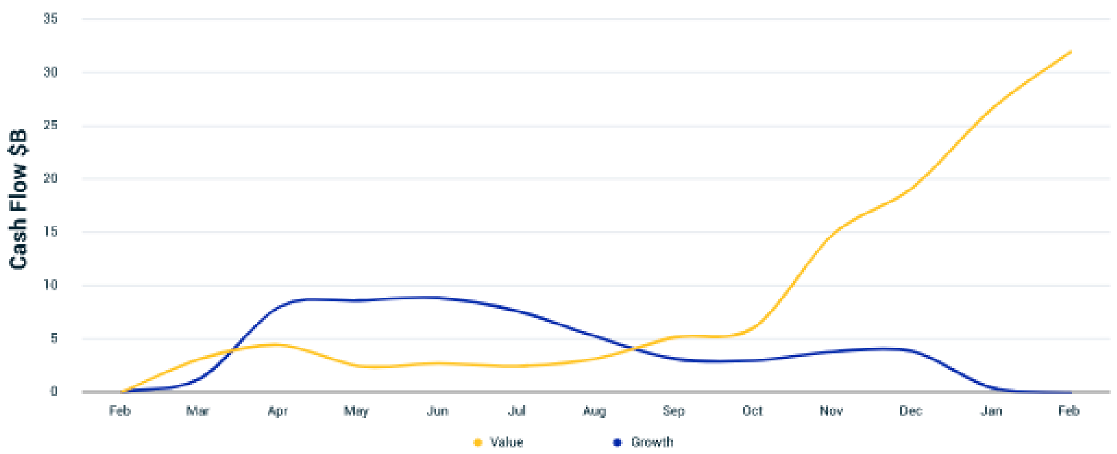


Source: Elston research, Bloomberg data. Real yield calculated using generic 10 year government bond and headline CPI rate

The great rotation

The "Value" rotation became a consensus from October 2020, as value stocks are perceived to perform well coming out of recessions, valuations were low, and finally there were growing fears of inflation breaking out. This led to material inflows into Value-focused exchange traded products from October 2020.

Fig.7. Value and Growth ETFs' Cumulative One Year Flows



All data as of Feb 26, 2020; defined as each share of an ETF, as identified by a separate Lipper ID. Only primary listings, and not cross listings, are counted. MSCI does not guarantee the accuracy of third-party data.

Source: MSCI Research

Summary

In conclusion, value stocks are shown greater potential resilience during higher inflationary regimes. This is not only due to the sectoral biases within value-style equities, but reflects the fundamentals of the ability of those companies to generate above-inflation earnings and/or dividends growth,as well as their shorter duration, relative to growth equities..

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