What Factors Are Driving Factors?

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Factor-based investing remains popular among investors and continues to enjoy strong interest, as evidenced by the growth in "smart beta" and related structured products. Smart beta factors are designed to help you outperform the market by capturing a well-researched "return premium" like value, size, or volatility.

The proliferation of ETFs has made it easy and cheap to invest in smart beta products. While these products are often marketed as a straightforward investment solution offering exposure to a specific factor, implementation can prove challenging. Factor returns can be very volatile, and are linked to the economic cycle, making it difficult to predict when the factors will out/underperform the market.

We suggest that a "smarter smart beta strategy" is to diversify exposure by investing in a basket of factors that have historically produced a high return premium.

Understanding Factor Behavior

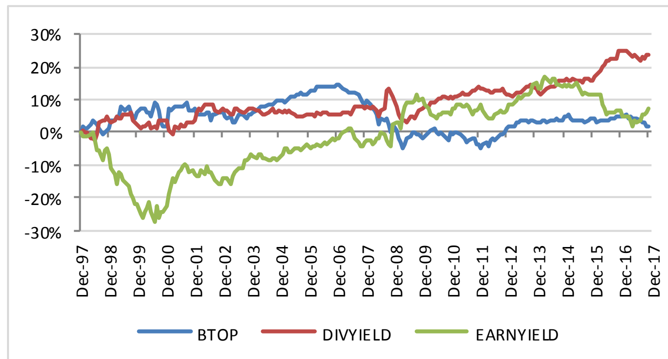
As previously mentioned, factors can be very volatile. Figure 1 shows the cumulative monthly historical returns of three well-known value factors. These include book-to-price (BTOP), dividend yield, and earnings yield for the S&P 500 in the twenty years surrounding the Great Financial Crisis (GFC). When the line is rising (falling) the factor is outperforming (underperforming) the overall S&P 500 index.

The data show that factor returns can be noisy and can produce large drawdowns when they fall out of favor. For example, a concentrated bet on earnings yield during the 1999-2000 "dot-com" era would have generated significant losses. BTOP has also been volatile, with a small return premium in the years prior to the GFC of 2007-2008, followed by a prolonged drawdown. Over the last twenty years, BTOP has effectively had no return premium, largely due to this post-crisis subperiod.

Factor returns can also be quite underwhelming for extended periods of time, as was the case with dividend yield in the six years leading up to the GFC. Since 2009, however, it has performed steadily with limited downside risk.

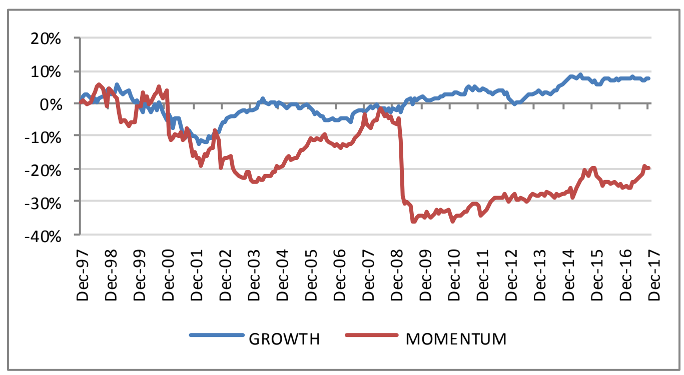
Interestingly, even though all three factors in Figure 1 are considered "value" factors, they have not out/underperformed the market simultaneously. As they are not perfectly correlated, different value factors can work or fail at different times. This imperfect relationship presents the opportunity for diversification within the portfolio, reducing risk and smoothing performance over time.

Figure 1



Source: S&P

Figure 2



Source: S&P

Layering in Growth and Momentum

The case for diversification is further strengthened by layering in growth and price momentum, a widely used measure of market sentiment. Figure 2 shows the historical returns for long-term expected earnings growth and price momentum. In comparing the two charts, we notice that growth and momentum tend to be positively correlated with each other, but have a weaker relationship with value factors.

What can we take away from these relationships? First, although growth and momentum tend to be positively correlated to each other, they can also behave very differently at times. Market sentiment is more prone to sharp reversals, as witnessed in the market panic of 2009 when momentum crashed and growth maintained its positive trajectory. Maintaining diversified exposure to growth, in addition to momentum, can help mitigate the impact of such events.

Second, we gather further evidence for how volatile factors' returns can be. Pre-GFC, growth and sentiment tended to be more cyclical, and performance was marginal. Since 2010, however, both factors have performed well with less volatility.

The volatility of value, growth, and momentum returns suggests how difficult it is to forecast factor returns, and highlights just how critical factor diversification is from both a risk and return perspective.

Can we time factors?

As mentioned earlier, smart beta ETFs make it easy and cheap to strategically target exposure to specific factors. These investment vehicles are appealing to those who believe they can time inflections in factor effectiveness, or assess the valuation of factors individually.

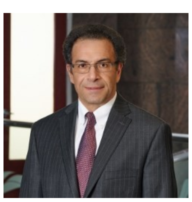
Post-GFC, investors generally became more risk averse and less interested in value. Growth, sentiment, profitability, and quality have been the preferred factors, suggesting a preference for growth and profitability at a reasonable price. When will the tide change again? No one knows for sure. Timing an entry or exit point is tricky since factor effectiveness is closely linked to the economic cycle, and valuing factors does not always work.

Historically, different factors have performed well in varying stages of the economic cycle. For example, if the economy is expanding, value measures are typically favored since growth opportunities are more readily available, and investors are generally willing to invest in more cyclical assets and assume higher risk. However, macroeconomic forecasting is very challenging, particularly at turning points in the cycle. This task has become even more daunting due to structural shifts in the economic cycle precipitated by Central Bank intervention, which make meaningful historical comparison difficult.

Valuing individual factors to determine if they are expensive or cheap relative to the overall market can also be problematic. This method requires the use of value factors, and only works when "value" itself works. For example, at the start of 2018, the BTOP of momentum looked expensive, which could have led investors to reduce momentum exposure. However, value, including BTOP, was not effective as a factor during the first quarter, and momentum continued its run. Betting against momentum would have triggered double losses: one by tilting away from momentum and the other by favoring BTOP.

Conclusion

Marketing smart beta factors as re-invented vehicles to reach our return goals does not mean the rules of the road have changed. Factor return volatility, behavioral biases, and the challenges linked to economic forecasting all call for the same diversification principle we apply to individual security portfolios. A diversified factor-based strategy may help you achieve your return goals while enjoying a safer and smoother ride.



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