

Understanding the Performance of the Equity Value Factor

The value premium has been under close scrutiny in the past years. After decades of sound returns, value's performance has dropped significantly since the 2008 Global Financial Crisis (GFC). A number of practitioners and academics have thus started to doubt the ability of the value factor to deliver solid performance in the future.

Still, it is important to note that the current value factor is different from the one we observed during the golden age of value investing in the early 2000s. For instance, shrinking transaction costs have eased investors' ability to arbitrage in the short term, leading to a shortening of the investment horizon of value investing.

In this context, Amundi has studied the equity value factor in order to understand the key macroeconomic and microeconomic determinants of its underperformance. Ultimately, the objective is to assess whether value investing may have brighter days ahead and whether value can, in the future, still play an important role in investors' portfolio construction process.

Key findings

1. After a very solid performance for decades, the value factor has been underperforming since the 2008 crisis

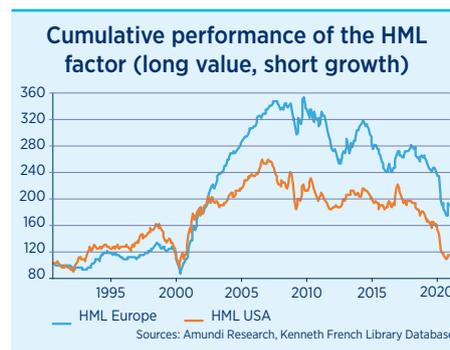
The analysis is based on the renowned Fama-French three-factor model and their definition of the value risk factor, i.e. the High Minus Low (HML) factor, built using the value-weight portfolios on book-to-market. Low Book-to-Market stocks, i.e. growth stocks, are subtracted from High Book-to-Market stocks, i.e. value stocks, to build the value risk factor. The impact of size is neutralized in the construction of the factor. Despite being implemented in different ways across factor investing portfolios, this agnostic view was chosen as it is thought to be representative of the average performance of the factor.

The study was undertaken on monthly returns from the value risk factor performance in Europe and in the U.S., splitting them into two sub-periods: up to December 2009 and since January 2010.

The value risk factor generally experienced a good performance from the beginning of the 1990s until late 2000s, despite a clear suffering at the end of the past century. In the wake of the dot-com bubble burst, the value factor peaked until the beginning of 2007, when it started plummeting sharply. It needs to be underlined that, despite seemingly moving together, the outperformance of the value factor in Europe is more remarkable than in the U.S.

Indeed, cumulative performance of the value factor shows a severe downward trend since

the GFC, nearly dropping to levels reached as far back as 2001 during the dot-com bubble in the case of the U.S. This trend was still very much visible in recent years on both sides of the Atlantic: the value risk factor lost 32% in the U.S. and 25% in Europe between December 2019 and September 2020.

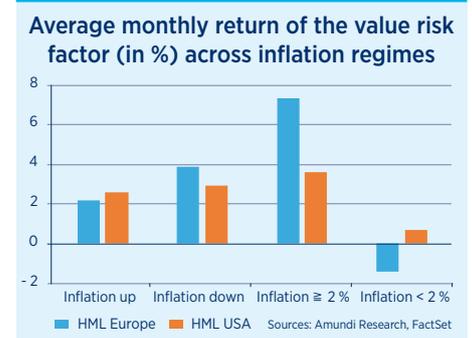


2. Inflation and tightening credit spread levels are the most supportive macroeconomic factors for value stocks

In order to assess the different macroeconomic determinants of the value factor, its relationships with interest rates, inflation dynamics, volatility regimes, periods of recession and credit market conditions have been studied.

First, it can be observed that value outperformed when inflation was relatively high,

i.e. equal or above 2%, both in the U.S. and in Europe. Interestingly, the performance seems to be more correlated with the level of inflation (high or low) than its changes in direction (up or down).

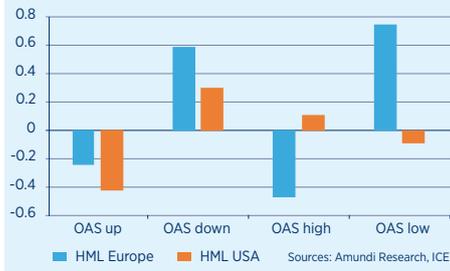


The absence of a recession is also, although to a lesser extent, a supportive factor for value stocks. When isolating periods of recession in the sample, it is observed that value has tended to underperform in difficult market contexts on both sides of the Atlantic.

Moreover, recessions are normally accompanied by widening credit spreads. When looking at the relationship between the credit spreads and the HML factor in Europe and the U.S., there is clear evidence that narrowing credit spreads provide the most favorable environment for value. It is to be noted, nonetheless, that the degree to which credit spreads are supportive seems to depend more on their directionality than on their level.

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Average monthly return of the value risk factor (in %) across credit spread regimes



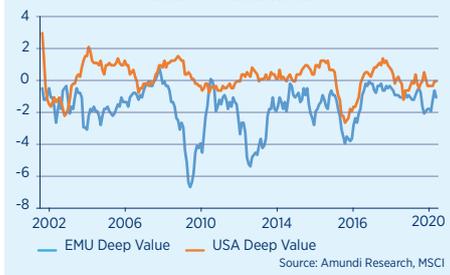
When focusing on other macroeconomic determinants, results do not display such a strong relationship between the movements of the value risk factor with interest rates and volatility regimes.

Overall, considering all macroeconomic factors in an econometric analysis, results show that credit spread tightening and the existence of an inflationary environment are the most conducive determinants to the outperformance of the value risk factor. The absence of recession is only a mildly significant factor, while volatility is only meaningful in the U.S.¹

3. Deep value stocks can be partially responsible for the drag on value performance

On the microeconomic side, it is interesting to analyze the performance of the highest book-to-market stocks, so-called “deep value”, extremely distressed companies that do not necessarily recover. Due to its shorter time horizon, investing in deep value is often assimilated with speculative bets.

Deep value stocks performance in EMU and US markets



The performance of deep value stocks was quite inconsistent over the past two decades. Since the GFC, performance dropped sharply in the Economic Monetary Union (EMU) but

resisted fairly well in the U.S. The same can be found for the outbreak of the Covid-19 crisis, where European deep value was hit more severely. On average, in fact, a deep value investor would have been significantly worse in the EMU than in the U.S.

Still, it is noteworthy that deep value stocks have mostly underperformed in this period characterized by decreasing interest rates. It seems that, instead of supporting deep value companies in their recovery, these macroeconomic conditions prevented the market from clearing out the so-called “zombie stocks” of companies that should go bankrupt but are instead sustained by the extremely low rate environment.

Overall, over the last decade, deep value returns have been negative both in Europe and in the U.S. The analysis has shown that deep value stocks have, indeed, contributed to the drag in value performance, but they cannot be blamed entirely for it.

4. Investing in value does not necessarily mean bearing higher default risk

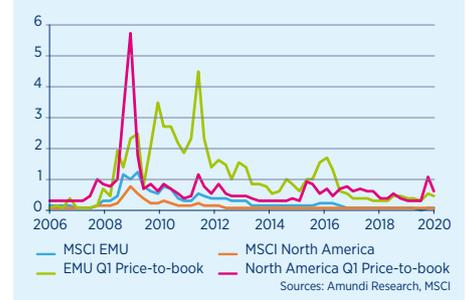
Value in equity and credit markets convey the same idea but are assessed with different metrics, namely price-to-book ratio for equity and Expected Default Frequency (EDF) for credit. It can thus be questioned whether changing the value definition leads to different performance figures.

In fact, the analysis of the performance of portfolios sorted by price-to-book and by EDF from March 2006 to June 2020 confirms the recent underperformance of value both in the U.S. and in Europe. As a result, it seems that its performance does not depend on the definition of value adopted.

Then, the historical average EDF of MSCI EMU and MSCI North America indexes were plotted against a fictitious value-based index built on the lowest price-to-book quintile. It is interesting to note that, both in Europe and North America, the value index EDF has been high until the sovereign debt crisis and the Great Financial Crisis, respectively.

However, since then, the gap between the value indices EDF and their broader version has closed. As a result, it seems that default risk could explain part of value’s underperformance, but not all of it. Ultimately, investing in value stocks does not always mean bearing greater default risk and thus, stock selection should remain key for a value investor.

Indexes average EDF (in %)

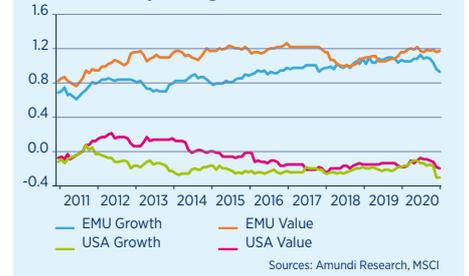


5. Value stocks are less brown than generally perceived

Value stocks, that are mostly found in sectors such as Energy, Banking, Utilities, Energy, Consumer Staples or Materials, are believed to display poor environmental performance compared to growth stocks.

To assess whether this assumption holds true, average ESG scores of MSCI Value and Growth indexes for both Europe and the U.S. were computed. The outcomes deconstruct the common belief that value is “brown” and growth is “green”: holding the MSCI EMU Value index results into having a higher ESG score than holding its Growth counterpart, and the same holds for the U.S. market. Overall, this suggests that the ESG performance of the portfolio ultimately relies on stock picking and that it is possible for a value investor to achieve a high ESG score.

Amundi ESG score of MSCI cap-weighted indexes



Then, following up on the article by Roncalli *et al.* (2020), the carbon beta for all stocks in the Value and Growth indexes was calculated. In the EMU, value was found to have a lower carbon beta than growth, i.e. it would benefit the most from the low-carbon transition.

¹ For more detailed explanation, please refer to Amundi Working Paper «Understanding the Performance of the Value Equity Factor».

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However, the two carbon betas have overall been converging, suggesting that European value and growth companies would be similarly affected by the energy transition.

On the other side of the Atlantic, the situation is different: the average carbon beta for value is generally higher, i.e. worse, than in the EMU, while the average carbon beta for growth has experienced a remarkable improvement since 2015. With the carbon beta being the lowest among the analyzed, U.S. growth companies seem to be the best equipped to adapt for the energy transition. This can partly be explained by the overrepresentation of big tech stocks in the MSCI USA Growth index.

Conclusion - Value: A new hope?

Due to its inter-linkages with the economic environment, value clearly has some flaws that can explain its recent performance. As mentioned, market turmoil linked to the Global Financial Crisis, the European debt crisis or the Covid-19 outbreak have had a significant negative impact on the value premium, as it can be expected for a skewness risk premium. However, closely studying the determinants of value performance reveals that not all is lost for value investing. Indeed, a brightening of the economic outlook spurred by the hopes placed in Covid-19 vaccines could cause strong value rallies.

Indeed, governments have started a massive fiscal stimulus push that may bolster inflation expectations upward and benefit value sectors such as Banking, Energy or Industrials. Improvements in consumer and business confidence could also push in that direction. While the low-rate environment may have become

the new normal, governments taking over with such a spending boost is quite unprecedented.

Moreover, it is important to keep in mind that value is recognized for its status of "best diversifier": in fact, value adds substantial diversification within a multi-factor approach, being negatively correlated with other factors, such as low-volatility and momentum. This is particularly relevant considering the growing re-correlation among other factors such as momentum and growth.

To conclude, Amundi believes that value could have bright days ahead. Its performance is likely to be strong in the months to come if inflation, driven by recovery stimulus packages, does materialize. In this unprecedented context, there is renewed hope that value can and should play an important role in investors' tactical asset allocation strategies going forward. Most importantly, it should also keep its strategic allocation function within a multi-factor portfolio due to its strong natural diversification properties.

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