

Europe Market Report

The Recent Value Conundrum

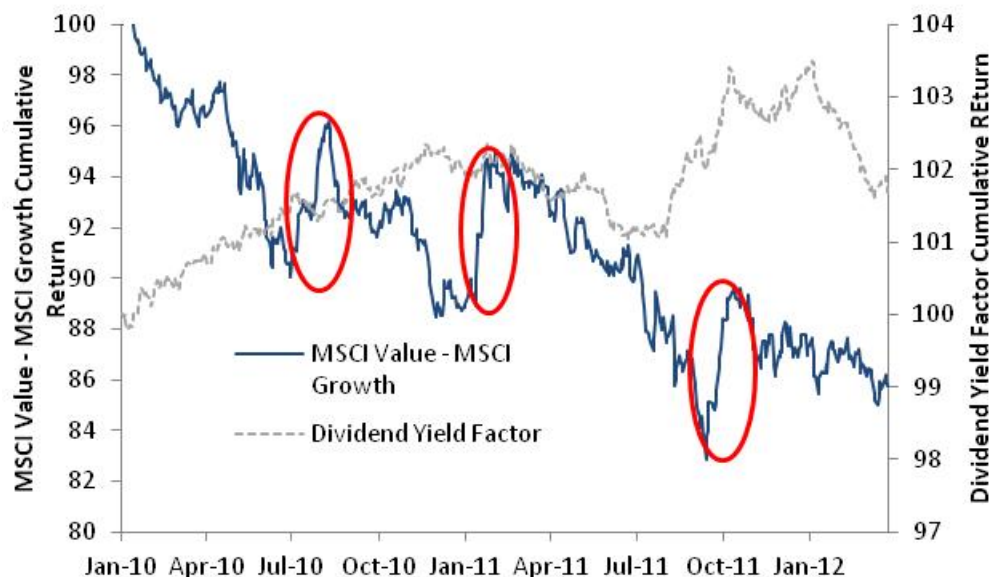
Zoltán Nagy and Oleg Ruban

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Introduction

According to popular index-based measures, value stocks have tended to underperform growth stocks since 2010. In the last two years, this underperformance has been interrupted by three sharp corrections, highlighted by red circles in Figure 1. As seen in the performance of the Dividend Yield Factor from the Barra Europe Equity Model (EUE3), alternative measures of the value effect can paint a different picture. In this report, we compare these different measures while touching on the practical issues of value investing, illustrating how unintended biases in a portfolio designed to capture the value effect could strongly influence its performance.

Figure 1: First glance at Value Performance in Europe.



Value Investing and Value Stocks

Value investing has been a recurring theme since the 1930s, followed by both fundamental and quantitative investors and supported by famous advocates like Benjamin Graham and Warren Buffet. Following Fama and French (1993, 1996), many studies have reported that portfolios overweight with value stocks have outperformed the market portfolio.

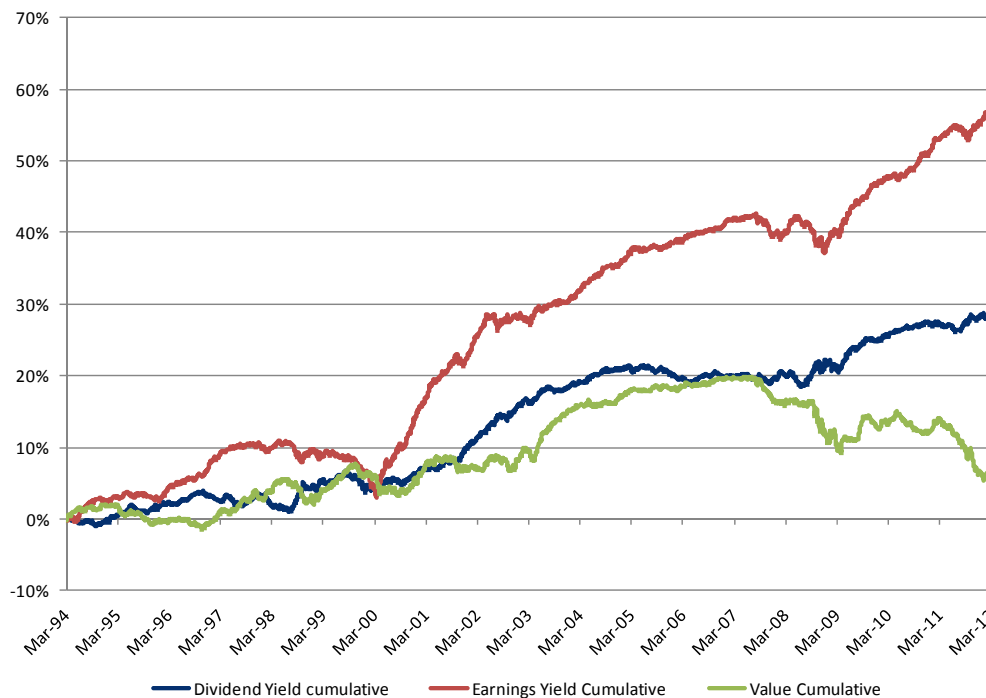
The source of the observed premium is open to debate. Fama and French (1993) argue that the value premium is a measure of risk associated with levels of economic financial distress and is the compensation for non-diversifiable risk borne by the holders of value stocks. Based on this, the attractiveness of value stocks would fall when risk aversion rises. Lakonishok, Shleifer and Vishny (1994) suggest that value stocks are mispriced relative to growth stocks, and portfolios that overweight value stocks should earn higher returns by exploiting this mispricing. More recent theories link the value premium to delegated portfolio management. Vayanos and Wooley (2010) argue that fund flows push prices away from fundamental value, resulting in a subsequent reversal.

In practice, there are several ways to measure if a stock is over- or under-priced. For example, investors can compare the price of a company to the dividends it has paid, or use accounting measures such as earnings, book value, or sales. These measures do not always lead to the same conclusion about the relative attractiveness of a stock.

The Barra Europe Equity Model (EUE3) reflects the diversity of value investing by defining three distinct factors: Value, Earnings Yield, and Dividend Yield.¹ Figure 2 shows the performance of these three measures. These factors isolate performance due to value characteristics, representing “portfolios” with unit exposure to the factor and zero exposure to all other factors. If the diversity in defining “value” were not enough, investors have designed a range of strategies aimed to harvest the associated risk premium. The fine factor structure of the EUE3 model helps institutional investors analyze the drivers of those strategies and pinpoint their intended and unintended tilts.

¹ The Value factor combines the book-to-price and sales-to-price descriptors to indicate how inexpensive the company is with respect to its book value and past sales. The Earnings Yield factor relates the market value of the company to its past and forecast earnings. The Dividend Yield factor is based solely on the ratio of past 12 months' dividends to the current market price.

Figure 2: Cumulative Performance of the Earnings Yield, Dividend Yield, and Value Factors, EUE3 Model, March 1994 - April 2012.



Exploring the Value Cycle

Value stocks go through cycles driven by market events, risk aversion, or macroeconomic activity.²

Tracing the cycles of the three value-related factors, we subtract a fitted linear trend from the cumulative return to those factors. The residuals of this regression illustrate the fluctuations of value stocks (see Figure 3). These three factors have followed the same trends since the start of the century, until the Value factor decoupled around the time of the first Greek rescue package in May 2010.

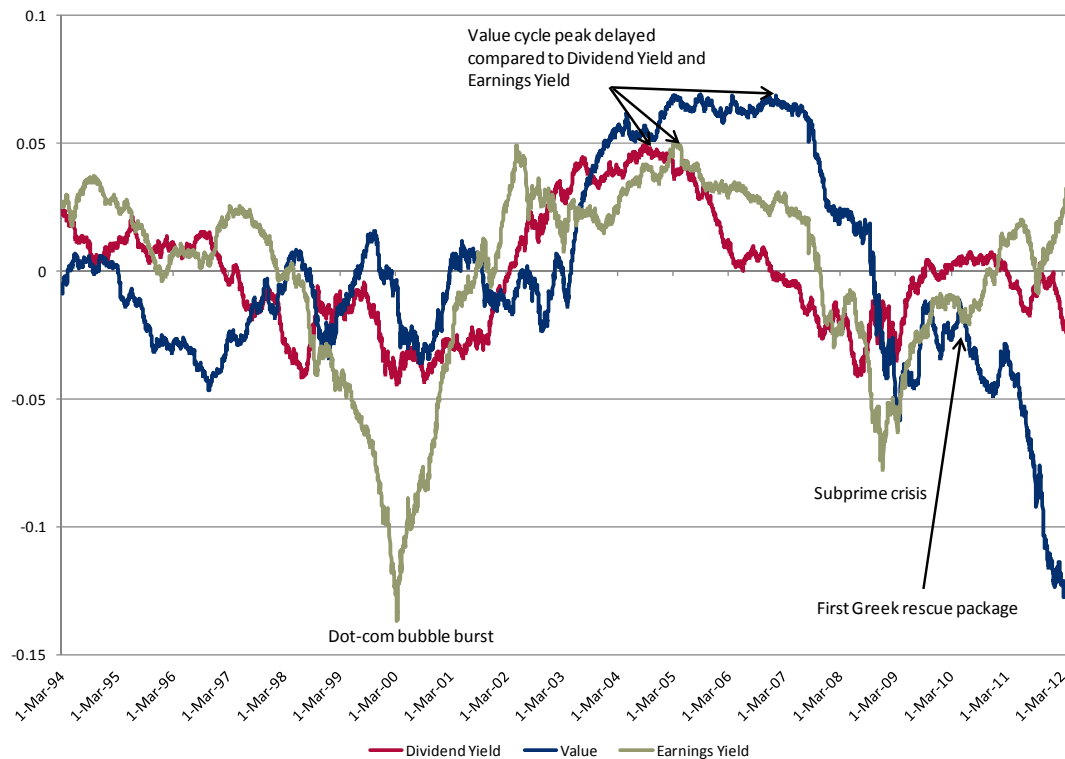
Earnings Yield is a forward looking factor³ with a cycle tied to market events and economic activity. In the run-up phase of the dot-com bubble, the Earnings Yield factor underperformed, reaching its trough at the peak of the bubble. During the subsequent slowdown and recession, all three factors outperformed, but their respective peaks did not coincide. Dividend Yield and Earnings Yield started to decline in early 2005 - as Europe's economy continued to expand – when Value was still hitting a plateau. All value-related factors declined sharply during the subprime mortgage crisis and recovered in 2009.

The factors diverged again during Europe's sovereign debt crisis. Earnings Yield continued its rise while Value's recovery stalled when Greece's problems worsened in May 2010. Dividend Yield stayed flat as the Greek crisis unfolded, declining below trend in recent months. All of this suggests that the Value factor was more sensitive to financial distress in the European economy, as suggested by Fama and French, whereas the Earnings Yield factor was more sensitive to the level of economic prospects.

² For further details, see Owyong (2011).

³ The descriptor with the largest weight is the predicted earnings-to-price ratio

Figure 3: Cycles of the Earnings Yield, Dividend Yield and Value Factors, EUE3 Model, Mar 1994 – Apr 2012.



Tracking Value by Ranking

Managers may construct a value tracking portfolio with a long-short strategy by ranking stocks according to their exposure to value-related fundamentals.⁴ Taking the top quintile as the long side and the bottom quintile as the short side is one way to design a portfolio with consistent, high exposure to Value. This ranking method, however, is also prone to unwanted sector and style biases. Residual exposures to the Earnings Yield and Dividend Yield factors may have caused less trouble in the past, since they tended to be aligned with the Value factor. In some cases, we have observed that the recent decoupling of these factors has led to offsetting contributions from them, which allows stronger, more volatile factors (such as Volatility and Momentum) to dominate the strategy and drive it away from the performance of Value.

To illustrate how various unintended exposures can influence the performance of this portfolio, we look at events in January 2012, which saw the long-short portfolio return 9.74 percent (see Table 1), mostly from style factors (7.87 percent). However, a closer analysis reveals that, in this case, the unintended exposures took over the portfolio's intended goal.

⁴We build the strategy using exposures to the EUE3 Value factor. The Value factor exposure is calculated as a linear combination of the book-to-price and sales-to-price ratios with weights of 0.62 and 0.38 respectively. The final exposure is obtained after standardization. Ranking with respect to the Value factor thus is equivalent to ranking by a combination of book-to-price and sales-to-price ratio. The portfolio in our simulation was rebalanced monthly.

January was by a strong rebound in Europe, where the Volatility factor⁵ delivered an impressive return. Due to the relatively high exposure to this factor, Volatility dominated the contribution of style factors. Despite the portfolio's tilt towards the Value factor, the flat performance of Value had a small contribution at 0.17 percent. Furthermore, Earnings Yield and Dividend Yield had off-setting contributions.

Although industry tilts were usually significant in this strategy, they did not play an important role in this month because sector performances were generally aligned with broad market performance.

Table 1: Performance Attribution of the Top-bottom Quintile Portfolio, EUE3 Model, January 2012.

Factor Groups	January 2012 contribution	Style Factors	January 2012 contribution	Exposure	Factor Return
Styles	7.87%	Volatility	5.11%	1.64	3.12%
Industries	0.95%	Momentum	2.88%	-1.47	-1.96%
Countries	-0.20%	Earnings Yield	0.82%	0.98	0.84%
Asset Selection	1.12%	Value	0.17%	2.43	0.07%
Total Active	9.74%	Liquidity	0.09%	0.40	0.23%
		Growth	0.00%	0.04	0.06%
		Financial Leverage	-0.14%	1.24	-0.11%
		Dividend Yield	-0.45%	0.78	-0.58%
		Size	-0.62%	0.53	-1.17%

Conclusion

This report examined practical issues facing managers constructing value portfolios with a case study from January 2012. We used the Barra Europe Equity Model (EUE3) to explore causes of the European value conundrum, showing that different definitions of value could lead to different perceptions about the overall performance of value stocks. For example, we observed a strong divergence in performance between the EUE3 Value and Earnings Yield factors since May 2010.

The factors in Barra Equity Models are pure in the sense that they represent the factors' contribution, net of any other effects. Although factor performance can be tracked by a mimicking portfolio, value managers generally use other strategies to capture the associated risk premium. The way these tracking portfolios are constructed can lead to significant biases towards other investment styles, as well as industries. These are frequently referred to as the unintended bets of strategies. Using EUE3, our study illustrated how these accidental exposures can drive the performance of simple strategies designed to capture value performance, especially when value-related factors tend to behave differently.

⁵ This factor captures the performance of high beta stocks relative to low beta stocks

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¹As of June 30, 2011, based on eVestment, Lipper and Bloomberg data.