

PERSPECTIVES

VIEWPOINTS FROM THE ACADIAN TEAM

VALUE'S INTRICACIES AND THE MARGIN OF SAFETY

AUGUST 2016

VALUE AND DRAWDOWN PROTECTION

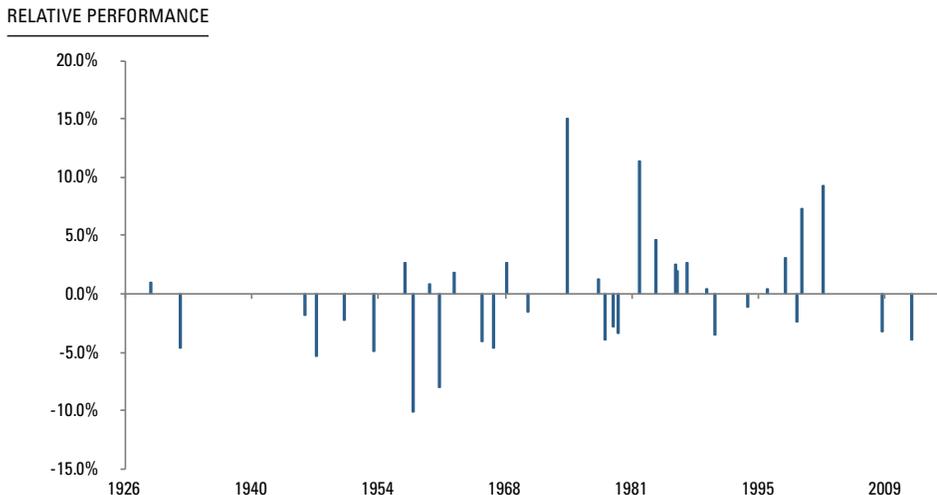
At a recent client meeting about Crash Risk, the CIO of a large public plan asked whether value stocks might provide protection in the event of a market downturn, similar to a low volatility portfolio. Traditional conceptions of value might suggest so, perhaps hearkening back to Benjamin Graham's "margin of safety" or reflecting a sense that value stocks include solid, unglamorous firms such as utilities and consumer staples, which we might instinctively think of as lower beta defensives. But the concept of value is complex and dynamic, and inferences based on such conventional wisdom could be misleading, especially if implemented

through rudimentary value formulations.

To illustrate, Figure 1 charts relative peak-to-trough drawdowns of a hypothetical B/P-based value portfolio compared to the market during episodes when the cap-weighted index lost at least 5%. Based on this simple definition, it doesn't seem clear that value affords relative protection. Among several possible explanations as to why, high B/P firms may be relatively inflexible in scaling down operations or reducing costs, and therefore they may be susceptible to deterioration of economic conditions.¹ High B/P ratios, in isolation, might also reflect distress.

FIGURE 1

Relative performance of hypothetical Value portfolio during U.S. market drawdowns in excess of 5% (Value – market)*



*Reflects 36 non-overlapping U.S. market drawdowns of 5% or more since July 1926. Drawdowns dated by market trough. Corresponding value drawdowns calculated as largest peak-to-trough decline of the hypothetical highest U.S. B/P cap-weighted quintile portfolio during a period spanning 90 days prior to the market's peak and its trough. Market and cap-weighted value quintile drawdowns are derived from U.S. stock monthly returns as found in Ken French's data library.

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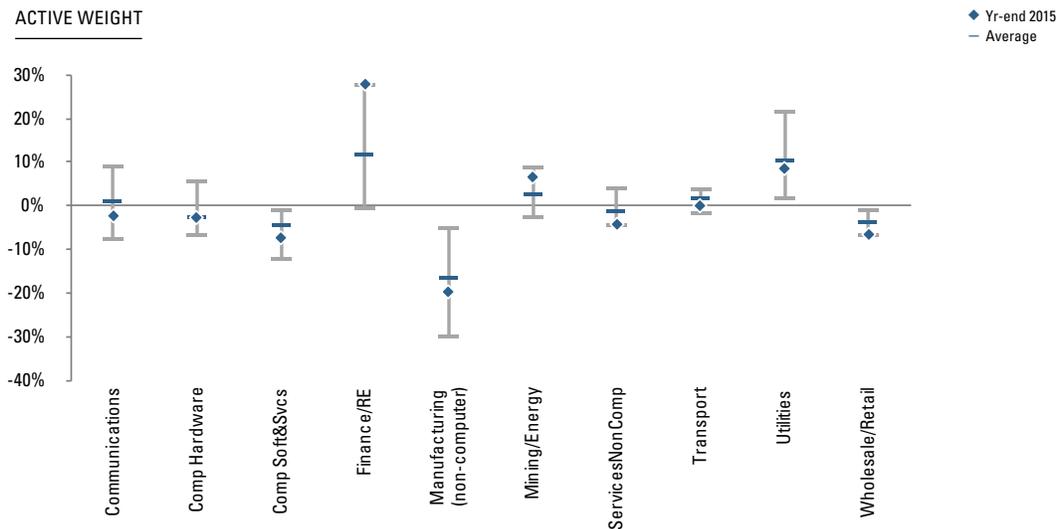
¹ E.g., see Huseyin Gulen, Xing, Yuhang, and Zhang, Lu, *Value versus Growth: Time-Varying Expected Stock Returns*, Working Paper, September 2008.

For investors seeking safety in value, at least based on archetypical B/P, it's also worth recalling recent changes in sector composition. Figure 2 shows a 30-year history of sector active weights of a hypothetical B/P-based portfolio relative to the cap-weighted market. The value quintile developed a large overweight in financials during the GFC. More recently, mining and energy stocks increased in relative weight. Those outsize positions grew at the expense of sectors that include traditional manufacturing and communications. As well, utilities' active overweight is considerably lower than it was during the 1990s.²

Accompanying these sector dynamics, we saw a material change in the relative betas of value stocks. While Figure 3 shows a prior tendency for high B/P value stocks to have relatively lower betas, it also shows that post-GFC the opposite became true. This may help to explain the recent pattern, in Figure 1, of value drawdowns in excess of market losses and undermine the notion that this simple measure of value, at least in isolation, provides a robust margin of safety.

FIGURE 2

Active sector weights: selected custom-defined industries within B/P-based hypothetical Value portfolio relative to cap-weighted market*



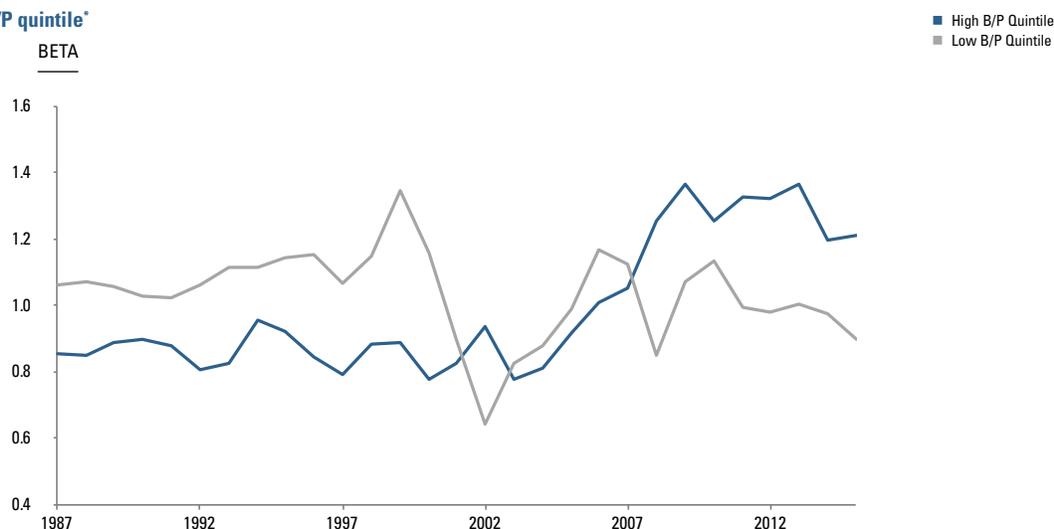
*Industries custom-defined based on 1987 SIC code definitions. On each annual formation date, hypothetical value portfolio formed by sorting stocks in the CRSP universe for which Compustat book value data is available into equal capitalization quintiles on the basis of B/P ratio. Value portfolio represents highest B/P quintile. B/P ratios calculated based on Compustat book value lagged at least 3 months and CRSP market capitalization data as of formation date.

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² Of course material sector dynamics in certain value formulations aren't new. Around the technology bubble, active weights of computer-related and telecom stocks first fell and then jumped as valuations expanded and then collapsed.

FIGURE 3

Average beta by B/P quintile*



* Betas calculated relative to the cap-weighted CRSP universe based on 5 years of excess returns, with a requirement that at least 12 returns are present during this window. Hypothetical quintile portfolios formed as in Figure 2.

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CONCLUSION

The observations touched on here only scratch the surface of whether, and in what form, value might offer a margin of safety and, more broadly, the value premium's behavior and its drivers:

- Does the value premium represent compensation for economic risk? Or does it reflect a mispricing that may be consistent across economic environments?
- Is variation in industry value metrics priced, or is the value premium largely derived from stock-level deviations from contemporaneous industry valuations?
- How can we distinguish between value traps and unjustifiably cheap stocks? What value metrics, other than B/P, might help, and what is the most efficient form in which to incorporate them?
- Are there intrinsic relationships between value and other risk factors / mispricings, e.g., quality and momentum, that are essential to understanding the nature of the value premium and risk associated with it?

Such questions highlight the benefits of an active quantitative approach to exploiting value, including a multi-factor orientation, integration of bottom-up and top-down research and implementation, as well as rich risk modeling and portfolio construction. That they are all subjects of academic discussion also emphasizes the importance of ongoing research by practitioners.

While value may be the longest established and most widely accepted of factors, it encompasses substantial complexity and dynamism. As such, integration of value into a portfolio isn't a simple matter. Implementations via rudimentary, set-and-forget vehicles may not fulfill investor expectations.

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