

# August 2014 Investment Publications Highlights

## “Low-Risk Investing Without Industry Bets”

Clifford S. Asness, Andrea Frazzini, and Lasse H. Pedersen, *Financial Analysts Journal* vol 70(4): 24–41

**Some investors assume that the attractive risk-adjusted returns of investing in low-beta stocks have been driven by a structural bias toward defensive industries. The authors, all principals at AQR, seek to dispel this notion by analyzing the results of low-beta stock portfolios with different industry characteristics.**

Previous studies have shown that buying low-beta stocks while shorting high-beta stocks has historically delivered compelling risk-adjusted returns. Some have suggested that such “low-risk investing” delivers high returns simply because of industry bets that favor more defensive sectors. While making industry bets is not by definition a bad idea, the criticism implies that the stellar track record of low-beta investing has been a historical accident and may not repeat itself.

To assess the validity of the concerns about investing in low-beta stocks, the authors compare the results of three strategies. The first is a standard, long/short “betting against beta” (BAB) portfolio formed by selecting long, low-beta and short, high-beta individual stock positions regardless of industry. The second is an industry-neutral BAB portfolio that goes long and short stocks within each industry depending on the stock’s beta relative to the industry median; in other words, the strategy produces a low-beta portfolio with no industry bets. The third strategy is a BAB portfolio based *purely* on industry bets; it is long low-beta industries and short high-beta industries. All three portfolios are built from a global universe of 57,441 stocks spanning 24 countries and 73 industries. For US stocks, beta is measured against the

CRSP value-weighted market index while the beta for global securities is measured against MSCI local markets indexes.

The authors find that all three BAB portfolios—whether US or global—have delivered high absolute returns and significant alphas with respect to the CAPM, a three-factor model, or a four-factor model. The monthly excess return, for example, of the standard global BAB portfolio from 1986 to 2012 was 0.72%; the excess return for a market cap-weighted, industry-neutral BAB portfolio was 0.47%; and the excess return for a pure industry bet BAB portfolio was 0.63%. The Sharpe ratios were 1.1 for the standard and industry-neutral BAB portfolios and 0.8 for the industry bet portfolio. Testing the US variants of the portfolios since 1929 helps confirm the robustness of the results. All three portfolios have produced generally consistent, positive results in the 20-year sub-periods since that date. The effects are also robust to company market cap and estimates of transaction costs.

The findings offer at least two important lessons about low-beta stock investing. First, the strategy is successful both within industries and across them, and indeed, a typical BAB strategy profits from both effects. Second, although the standard BAB strategy features positive exposure to the value factor—as previous papers have identified—industry-neutral BAB portfolios tend to have low or even negative exposures to it, and all BAB strategies have positive four-factor alphas. Taking these findings together disproves the notion that the success of “betting against beta” is dependent on industry bets or exposure to other factors.

## “The CAPE Fits the S&P”

[Lombard Street Research](#), July 31, 2014

**The economists at Lombard Street Research argue that US equity markets are reasonably valued. While they admit that the formation of a new stock market bubble is entirely possible, their historical analysis of the S&P 500’s cyclically adjusted price-earnings (CAPE) ratio leads them to conclude that the US bull market may be far from a peak.**

The S&P 500’s current CAPE ratio of 25.0 is about 60% higher than its 135-year average of 15.9 (Lombard Street calculates the CAPE using 7.5 years of real earnings rather than the more commonly used ten-year window based on its assessment of the duration of past US business cycles). Some observers infer from this statistic that the US market must be due for a sharp fall. For this to be true, however, there must be a meaningful average to which the CAPE will revert—and Lombard Street argues that there is no such coherently justifiable mean. Instead, the firm prefers to view the CAPE’s history through the lens of three sub-periods: pre-World War I (1879–1913), the “short 20th century” (1914–90), and post-Cold War (1991–present). Observed in this fashion, the S&P’s current CAPE falls just above its post-Cold War average, which Lombard believes is the most relevant period for comparison.

Lombard makes a qualitative case that the different average risk premiums in each of the three major post-1879 sub-periods appropriately reflected their times. In particular, the low 13.7 average CAPE during the period between the onset of World War I and the end of the Cold War reflected a period plagued by major conflicts, global depression, and a major inflation. The higher average of 24.6 since the end of the Cold War has reflected a perception that these major, asset-destroying events are a thing of the past. Moreover, investors have cheered the end of widespread belief in socialism, and the global

savings glut and consequent low return on capital have raised the price paid per unit of income.

Given the rationale for high postwar valuations, the main question for investors is whether a reduced overall perception of risk will persist into the future. While major catastrophic events similar to those of the past are likely to recur in the future, it is impossible to predict their timing or to measure their potential impact. Relying on their recurrence within the foreseeable future to predict reversion to a low mean might be problematic for investors. Nonetheless, among the limitless potential threats to the stability of post-Cold War equity markets are major geopolitical shifts, including a settling of the world back into two rival blocs or heightened tensions due to China’s assertiveness in Asia. Another threat could arise from the low return on capital and consequently low real interest rates stemming from the global savings glut. “Japanisation” of the world economy could lead to increased debt defaults and asset price deflation. In the longer term, a strong US economy and a lack of other global demand could lead to a rising dollar, inflationary pressures, and, ultimately, falling profits for US companies. An environment of rising prices and falling profits could lead to another 1999-like bubble before another eventual burst.

Lombard Street tracks two additional equity valuation variables to complement the CAPE. The real value index (RVI) is the S&P 500 Index with dividends reinvested and corrected for CPI inflation—it has increased more than 10,000 fold over the past 140 years, with a remarkably steady 6.6% annual average real yield. The S&P’s RVI is currently just above its trend, or fairly valued. The main drawback of the RVI is lack of a theory to support it, despite Lombard Street’s claim that the firm has used it effectively to “forecast major turning points over the past 15 years.” Contradicting the CAPE and RVI, however, is the price-to-book (P/B) ratio of US non-financial companies, which suggests that the US equity

market is about 50% overvalued. Lombard Street is skeptical about drawing inferences about market valuation from the P/B ratio. As pure service businesses continue to become a larger portion of the economy over time, the P/B ratio is less likely to reflect the inherent value of the firm, or what some may refer to as the brand. This development in the market suggests a growing divide between book value and brand value. ■

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