EXECUTIVE SUMMARY[1]

Beyond Cap Weight:

THE EMPIRICAL EVIDENCE FOR A DIVERSIFIED BETA

In the aftermath of the global financial crisis, many investors reassessed their risk budgets downward. In some cases, this resulted in a decision to invest into passive strategies for global equity portfolios. The investment industry has traditionally used passive beta strategies based on market-cap weights (Cap Weight). However, there are other beta strategies that institutional investors can choose from, some offering better return and/or lower volatility when compared with Cap Weight.

Paul Moghtader and Craig Scholl from Lazard Asset Management (Lazard) have recently co-authored a research paper with Rob Arnott and Vitali Kalesnik, from Research Affiliates, titled "Beyond Cap Weight: The Empirical Evidence for a Diversified Beta," which analyzes some of these alternatives and explores the potential of a more diversified approach in the quest for beta.

The research paper reviews three non-cap-weighted strategies, Equal Weight, Economic Scale, and Minimum Variance; analyzes the theoretical assumptions underlying their creation; and compares their performance. As its name suggests, the Equal Weight strategy is constructed by equally weighting all of the stocks in a relevant index. Economic Scale, which is also known as the Fundamental Index® approach, weights companies according to combinations of sales, cash flow, book value, and dividend measures. Minimum variance strategies are constructed to minimize volatility.

The paper then considers two blended combinations of the four passive alternatives, Cap Weight, Equal Weight, Economic Scale, and Minimum Variance. It is particularly interesting that the most efficient blend, which we refer to as "Efficient Beta," consists of equally weighting Cap Weight, Economic Scale, and Minimum Variance (the other blend is an equal-weight combination of all four passive alternatives). Over the market cycle under consideration, the "Efficient Beta" achieved superior returns off lower volatility, thereby delivering a noticeably higher Sharpe Ratio.

Exhibit 1 shows various performance metrics of the different strategies. It is clear, from both return and risk perspectives, that all of the alternatives provided higher returns and lower volatility compared to the Cap Weight strategy.

Exhibit 2 shows that diversifying the beta exposure away from a sole reliance on the Cap Weight strategy results in a reduction in the overall volatility for the Efficient Beta strategy.

EXHIBIT 1: RETURN CHARACTERISTICS, JANUARY 1993 – JUNE 2009

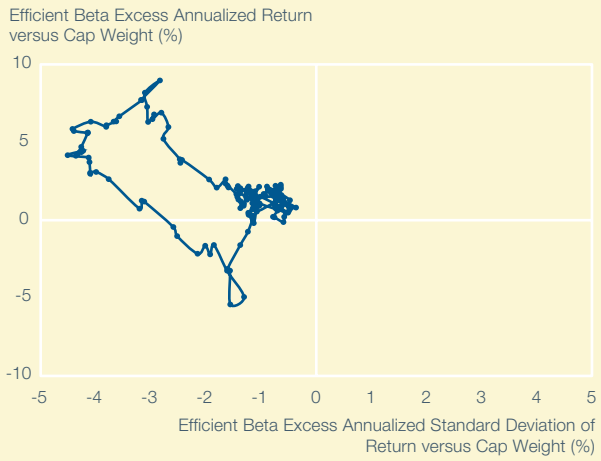
Strategy	Geometric Return (%)	Volatility (%)	Sharpe Ratio	Excess Return vs. Cap Weight (%)	Tracking Error vs. Cap Weight (%)
Cap Weight	6.39	14.50	0.18	—	—
Economic Scale	9.46	14.35	0.40	3.07	5.00
Equal Weight	8.48	14.44	0.33	2.10	4.65
Minimum Variance	9.26	10.70	0.52	2.87	7.39
Efficient Beta	8.43	12.81	0.37	2.04	3.71

Source: Research Affiliates, Lazard
Past performance is not a reliable indicator of future results.

Even relative to the constituent non-cap-weight strategies, the combined strategy shows a number of attractive attributes:

- The tracking error is reduced significantly compared with each individual strategy, leading to an information ratio that is higher than the average.

EXHIBIT 2: ROLLING 3-YEAR ANNUALIZED PERFORMANCE RELATIVE TO CAP WEIGHT, JANUARY 1993 – JUNE 2009



Source: Research Affiliates, Lazard
Past performance is not a reliable indicator of future results.

- The Efficient Beta strategy's outlier characteristics are more similar to those of the Cap Weight strategy than any of the individual non-cap-weighted strategies. The minimum monthly return and minimum 3-month return over the examined period both outperformed the Cap Weight strategy, thus suggesting that a move from a singular reliance on cap weighting to a more diversified approach does not significantly increase the downside risk.

Each strategy has its own strengths. Cap Weight has the lowest cost. Minimum Variance achieves its objective with the lowest volatility of 10.70% and the highest Sharpe Ratio of 0.52. The Economic Scale strategy, measured relative to the Cap Weight strategy, has the highest information ratio, 0.62. The Equal Weight strategy has the lowest tracking error versus the Cap Weight.

Conclusion

The conclusion of the paper is that all three alternatives to the Cap Weight strategy, as well as the blended strategy, have historically dominated Cap Weight in return and/or risk-adjusted returns. It suggests that, for those conservative investors who would like to moderate their beta risk, a good alternative may be to diversify among different beta strategies.

Lazard offers a range of Managed Equity Risk strategies, including the Lazard Quantitative Equity (LQE) – Global Passive Volatility strategy that was used as the Minimum Variance strategy in the research paper described above.

NOTES

1 This paper summarizes an article published in the January/February 2010 issue of the *Journal of Indexes*.

IMPORTANT INFORMATION

Published on 27 November 2009. Revised on 7 December 2009.