Low-Risk Investing without Industry Bets

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Overview
The paper discusses the strategy of low-risk investing, and examines whether this strategy is largely based on industry bets.

[The strategy]
Low Risk Investing is a strategy of buying safe low-beta stocks while shorting (or underweighting) riskier high-beta stocks ("betting against beta"). This strategy has been shown to deliver significant risk-adjusted returns.

[Basis Reasons]
Safer stocks deliver higher risk-adjusted returns than riskier stocks.

[Argument & Hypothesis] (to be disproved)
Low Risk Investing delivers high returns primarily due to industry bets that favour a slowly changing set of stodgy, stable industries.

Methodology
The “regular” betting-against-beta (BAB) factor used in the strategy is constructed by sorting stocks on their betas without regard to industries. Thus, its performance could be driven by industry bets, stock selection within an industry, or a combination of the two. The paper first constructs the normal “regular” BAB. Next, in order to determine the key drive behind, two new BAB factors are constructed – one with no industry bets and the other with only industry bets, i.e., the Industry-neutral BAB and the pure Industry BAB.

The industry-neutral BAB is constructed by going long and short stocks in a balanced way within each industry. For each industry, a BAB factor is calculated. Then the overall industry-neutral BAB is obtained by diversification of those factors across industries.

The pure industry BAB is constructed by considering a BAB strategy that longs low-beta and shorts high-beta industry portfolios. In this way, the investment strategy is relatively close to the perception of a strategy purely based on industry bets.

In addition, the paper also estimated the alphas, adjusted for the standard four-factor model exposures to size, value, and momentum.

Findings
Both types of low-risk investing work. Historically, the industry-neutral BAB factor has realized a higher Sharpe ratio than the industry BAB factor, both in the US and internationally. Moreover, the industry-neutral bet works remarkably consistently within almost very industry.

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1 The Carhart four-factor model is an extension of the Fama-French three-factor model including a momentum factor. It is commonly used as an active management and mutual fund evaluation model.
The regular BAB is decomposed into its components. The strategy makes both industry bets, as well as stock selection bets. However, the regular BAB loads more on the industry-neutral BAB than on the industry BAB in the U.S and loads about equally in the global sample.

The absolute returns of the BAB factors are usually high (adjusted for the four-factor model). But despite the standard BAB’s positive value exposure, the industry-neutral BAB strategies have very low, and sometimes negative loadings on the value factor.

Figure 1. Performance of Regular BAB, Industry-Neutral BAB, and Industry BAB

![Chart showing performance of different BAB strategies](image)

Note: This figure reports the Sharpe ratios for the regular BAB, the value-weighted industry-neutral BAB, and the industry BAB constructed on the basis of US stocks (1926-2012) and global stocks (1966-2012).

Conclusion

The regular BAB strategy already makes a significant stock selection bet; the industry-neutral stock selection bet works well, and it is not a value bet.

Low-risk investing is useful both for selecting stocks within an industry and for selecting industries. BAB earns positive returns for both industry selection and within industry stock selection, and its risk-adjusted, within-industry returns are especially strong. The regular BAB factor is more dependent on industry-neutral stock selection than on industry selection.

Thus the paper disproves the argument that BAB is merely an industry bet. It is neither driven purely by industry bets nor more effective for industry bets.

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\[ ^2 \text{Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors.} \]

\[ ^3 \text{The value factor uses Price-to-Book ratio of stocks as a measure.} \]
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