Beta and Return

The relationship between beta and return is demonstrated in this research. Beta's 'death' has been predicted, but it appears to be premature. Black wonders why low-beta stocks have outperformed the CAPM's expected returns so well, as well as why the line is so flat.

The beta factor has the highest probability of being priced. The beta factor can be calculated by building a diversified portfolio that is long in low-beta stocks and short in smaller amounts of high-beta stocks, with a beta of about zero. All of these portfolios' returns are highly correlated. To keep the method simple, he used the Black-Scholes method of estimating portfolio beta, alpha, and residual risk at the same time, using an average residual volatility for the entire period and New York Stock Exchange listed stocks sampled for each year in six decades plus a year. In order to minimize this potential source of bias, Black and Scholes [1974] modify the portfolio strategy. The concept is straightforward. We choose stocks and weight them based on only the information available at the moment. This eliminates any bias and makes the data easier to understand and analyze.

They employed positive weights on low-beta portfolios and negative weights on high-beta portfolios after conducting hypothesis testing. The beta factor, in effect, is a portfolio that is long in low-beta stocks and short in high-beta stocks, with the largest long positions in low-beta stocks and the largest short positions in high-beta stocks. Because low-beta stocks all have a tendency to go up or down at the same moment. From 1931 to 1965, Black, Jensen, and Scholes [BJS, 1972] and Miller and Scholes [1972] discovered that low-beta stocks in the United States performed better than the CAPM model, whereas high-beta stocks performed worse. According to Black, borrowing restrictions, including margin rules, bankruptcy laws and tax rules, may explain why low-beta stocks have performed so well. Furthermore, all of the authors discover that the estimated slope of the line connecting average return and risk is lower than (or even flat) the slope of the line evaluated by CAPM as a relationship between expected return and risk. Lastly, the findings were mainly in line with previous research, however there were significant discrepancies. Fama and French misinterpreted their own data which their findings appear to be contradictory since they cannot rule out the possibility that the line's slope is positive, even though beta and average return are entirely consistent.

The findings could be implemented with both individuals and corporations. For investments that are dependent on their betas, a company should apply discount rates, on the other hand, many corporations are subject to borrowing restrictions. This could imply that corporate assets are valued similarly to common stocks in which low-beta assets could be undervalued, and high-beta assets could be overvalued. Moreover, a rational corporation will evaluate an investment using the betas of the investment's cash flows, regardless of the slope of the line. Individuals and corporations with access to free credit should continue to use the CAPM and beta to appraise investments and select portfolio strategies.

To conclude, low-beta stocks did better than the CAPM predicts, while high-beta stocks did worse.