

Summary of Beta and Return by Fischer Black

Fischer Black, the author, is trying to explain his findings against Eugene Fama's that says "beta as the sole variable explaining returns on stocks is dead." and that the relationship between average return and beta is absolutely flat. Along with Jensen and Scholes, BJS discover that low-beta stocks outperform the CAPM in predicting returns, whereas high beta stocks can do worse. In addition, Black claims that the line connecting expected return and beta has only a positive slope, which is consistent with the Sharpe-Lintner-Black (SBL) model.

According to Black, we should be careful of data mining, which occurs when researchers selectively report successful runs that are aligned with their research. As a result, data mining leads to anomalies. Furthermore, Black says that there are other concerns: such as the small-firm effect and Book-to-market value ratio, which Fama and French did not address.

In this paper, Black develops some of the beta factor theory by establishing a diversified portfolio that comprises a lot of low beta stocks and a lower amount of high beta stocks, resulting in a beta of zero. Thus, all of these portfolios have a high degree of correlation in terms of returns. The evidence that the beta factor generated additional returns stronger than the small-stock factors is, first, the factor has performed better since publication than it did before publication. Secondly, Black shows that borrowing restrictions may result in low-beta stocks predicting higher expected returns than the CAPM. Some examples of borrowing restrictions are margin rules, bankruptcy laws, and tax rules. Another reason for beta factor pricing is a market portfolio mismeasurement; low beta stocks in the world market portfolio are likely to be underpriced. Black believes that the portfolio method is straightforward. So, he tries to replicate a portfolio approach that an investor might employ. Then, he can add any cross-sectional effects that are essential. In addition, to lower the data mining issue, BJS adopted a simple portfolio strategy by choosing assets based on historical beta estimations and using diverse equities to diversify risks.

From the exhibit, the portfolio strategy illustrates the behavior of stocks with various betas. For instance, high-beta stocks have a high return standard deviation, and their issuers are high-leverage companies.