

## **Beta and Return by Fischer Black**

This paper is about the beta and return of the portfolio. The questions of the paper are about why the slope of the CAPM is flat, Low Beta stocks do well comparing to the expected returns under CAPM.

The paper tries to contradict the other research papers on data mining. Data mining will lead to bias as the result can be accidentally found and the data is selected based on the results that go well together with the assumptions. In addition, with data mining of other papers, the results from them may not be correct as they can be involved with false starts and blind alleys. These resulting biases in many papers where the factors can not be explained and no relation among themselves consisted of the size effect, the relation between size and expected return as lack of theory, and the book value to the market value of the firm's equity variation in the average stocks return.

The paper suggests using the portfolio method to minimize the data mining problem from BJS. However, it has a flaw on the part of the highly correlated beta with total risk and returns. On the other hand, the portfolio methods from BJS will enhance the estimation of the entire covariance matrix to improve the efficiency of the test in the paper. The results of the paper illustrate that low-beta stocks did better than CAPM predicts while the high-beta did worse than CAPM predicts. According to Exhibit 4, the result proved that the slope of the relation average return to beta is flat and the low-beta stocks did better when the high-beta did worse, vice versa. This can capture the relative behavior of the stocks with the different betas. Furthermore, the paper eliminated the bias by using the weighted available information. However, the multivariate is impossible to run in this case which is due to the unavailable of information on the covariance.

For the application, the restriction on borrowing may be no longer faced, or to maximize the stock price, the markets should be governed by the normal CAPM. On the other hand, facing the borrowing restrictions, they will increase the leverage to lower the agency rating so the individuals will be reluctant to borrow.

### **The Equity Premium A Puzzle by Rajnish Mehra**

The paper used the data and found that there is a large gap between the stocks and the short-term debt. Thus, this paper uses the pure exchange model by Lucas (1980) to determine the reason for this large gap.

The data that are used in the paper consisted of P (Annual average Standard and Poor's Composite Stock Price), D (Real annual dividends for the Standard and Poor's series), C (real consumption on non-durables and services per capita), PC (Consumption deflator series), and RF (Nominal yield on relatively riskless short-term securities over the 1889-1978 period). All variables were used to determine the large gap.

However, the result is against the empirical data as the average return is so small which does not correspond with the riskless assets. This illustrated that there is inconsistency in the empirical data.

The question based on the paper is what happens to the large gap of the return on two different types of assets as unanticipated inflation is negligible. A potentially more serious problem is that these errors bias our estimates of the growth rate of consumption and the risk-free real rate. A second measurement problem arises because of tax considerations. To solve the problems, the writer decided to apply capital accumulation and production to the model to perform the additional tests.

The equity premium puzzle may not be why was the average equity return so high but rather why was the average risk-free rate so low. We doubt whether heterogeneity, per se, of the agents will alter the conclusion.