Measuring Expected Returns in a Fluid Economic Environment

by

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(Abstract)

This paper examines the components of the Capital Asset Pricing Model and the model's uses to analyze portfolios returns. It also looks at subsequent versions of the CAPM including a multi-variable CAPM with the inclusion of selected macro-variables as well as a non-stationary beta CAPM to estimate portfolio returns. A new model is proposed that combines the multi-variable component together with the non-stationary beta component to derive a new CAPM that is more effective at capturing current market conditions than the traditional CAPM with the fixed beta coefficient.

The multi-variable CAPM with non-stationary beta is applied, together with the select macro-variables, to estimate the returns of a portfolio of assets in the oil-sector of the economy. It looks at returns during the period of 1995-2001 when the economy exhibited a wide range of variation in market returns. This paper tests the hypothesis that adapting the traditional CAPM to include beta non-stationarity will better estimate portfolio returns in a fluid market environment.

The empirical results suggest that the new model is statistically significant at measuring portfolio returns. This model is estimated with an Ordinary Least Square (OLS) estimations process and identifies three factors that are statistically significant. These include quarterly changes in the Gross Domestic Product (GDP), the Unemployment Rate and the Consumer Price Index (CPI).

Dedication
To my family.

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