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AN EMPIRICAL STUDY ON THE CONDITIONAL RELATION BETWEEN BETA AND RETURNS: EVIDENCE FROM SRI LANKA

Abstract

Sharpe (1964), Lintner (1965), and Black (1972) Capital Asset Pricing Model (CAPM) states that, in equilibrium, the expected return of any asset is a function of the risk-free rate, beta (a measure of systematic risk), and the expected risk premium. The risk-return relationship is predicted to be linear if the CAPM holds. The purpose of this paper is to examine whether there is a systematic relationship between risk, measured by beta, and cross-sectional stock return. This study employs the Fama and MacBeth (1973) three-step portfolio approach (FM approach), with modifications suggested by Pettengill *et al.* (1995), taking into account all listed companies of the emerging stock market of Colombo Stock Exchange (CSE). The sample period (July-1998 to June-2009) is first separated into three-year sub periods, which are further divided into a portfolio formation period, a portfolio beta estimation period and a testing period of one year each. Consistent with previous empirical findings in several other markets, this study supports the conclusion that the unconditional relationship between beta and return is flat. The empirical results also show that when data is separated between up and down market periods depending on the sign of the market excess returns (the conditional test procedure suggested by Pettengill *et al.* (1995), the relation between beta and return is statistically significant in the full sample. However, a significant relationship between beta and return is not evident in certain up and down markets sub-sample periods due to higher standard deviation of slope coefficients in those sub-periods.

Keywords:

Capital asset pricing model, Conditional relation, Colombo stock exchange, Beta and return.