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THE PERFORMANCE OF CONDITIONAL CAPMS BASED ON EVIDENCE FROM THE EUROPEAN UNION'S (EU) FINANCIAL STOCK MARKETS BEFORE AND AFTER THE EUROZONE FINANCIAL CRISIS

Abstract:

This paper focuses on identifying the stochastic behavior of financial stock markets for the purpose of making profitable investment decisions. A time-varying version of the Linear Market Model (consistent with a conditional Capital Asset Pricing Model (CAPM)) which allows only for the time-varying beta risk parameter is the benchmark market model for this research. To validate and extend the time-varying Linear Market Model, two related extensions are defined. These are newly formulated forms of the time-varying Higher order Market Models (consistent with their equivalent conditional Higher order CAPMs (Neslihanoglu, 2014)) and are simple polynomial extensions of the time-varying Linear Market Model; namely, the time-varying Quadratic Market Model (which allows for the time-varying beta and time-varying co-skewness risk parameters) and the time-varying Cubic Market Model (which allows for the time-varying beta, time-varying co-skewness, and time-varying co-kurtosis risk parameters). Here, the time-varying risk parameters are estimated using the state space model. The data is based on several EU area financial stock markets before and after the Eurozone financial crisis as well as on forecasting made 2 years into the future. The empirical results found support the time-varying Linear Market Model which allows only for the time-varying beta risk parameter when modeling and forecasting EU area financial stock markets.

Keywords:

CAPM, EU Countries, Higher-Order Moments, State Space Model, Systematic Risk Measure Parameters

JEL Classification: C19, C58, C15