ABSTRACT

MODELING EQUITY PRICES AND EQUITY PREMIA WITH SPECIFIC SHOCKS

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Up to now, the consumption-based capital asset pricing (CAPM) models seeking to explain the equity prices and the equity premia have rarely introduced the existence of a particular and specific production sector issuing equity shares. Moreover, the usual CAPM have not taken into account the possibility of shocks affecting only the firms obtaining excess profits. However the coexistence in the economy of at least two sectors is clear, one with zero profits and the other obtaining positive profits. Also, it is logical to suppose that these firms issuing equity shares are subject to specific shocks, specially if we consider the global nature of stock markets. To disregard these facts implies, in addition, the lack of some interesting theoretical properties, as, from a strict microeconomics point of view, it would be impossible to identify the expected prices for the commodity (and then the insurance activities would not exist in the economy) and to ensure a complete asset structure and the Pareto-Optimality of equilibrium. Taking a typical CAPM as our starting point, I introduce some modifications in order to include a particular and separated production sector issuing equity shares and subject to specific shocks. To be precise, I consider two coexistent production sectors, each with a particular production function. The first has zero profits, the other obtaining excess profits and then issuing equity shares. This last production sector is affected by a specific and distinguishable exogenous shock, which follows a first order Markov Process. I solve the model and find the equilibrium equity prices and returns, showing some interesting properties derived from our modifications, such as the absence of arbitrage opportunities, the existence of equity premia, the generation of a complete asset structure making insurance activities possible, and the possibility of a better fit to the data in explaining volatility and risk premia.

Keywords: General Equilibrium Model, Consumption-Based Asset Pricing Model, Risk Premium, Equity Premium Puzzle

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