The Risk Premium and Capital Accumulation in a Continuous Time Equilibrium Model

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Abstract

This paper proposes a continuous time general equilibrium asset pricing model in which money is introduced as bank accounts that serve all transactions and equilibrium consumption-capital paths are the same as those in the deterministic one sector optimal growth model except that the Pareto optimality is distorted by the degree of risk premium arising from sunspot type nominal price volatility. This model allows us to explain the recently stylized phenomena that the risk premium mainly affects the long-run investment rather than the interest rate does. This paper also dissolves the risk premium puzzle because the amplification of risk premium is given independently of the degree of relative risk aversion and equilibrium is determined by adjusting the quantity of money under the given risk premium.