Real Effects of Quantity of Money and Bubbles of Stock Prices in a Continuous Time Equilibrium Model

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Abstract

We study a continuous time equilibrium model with banking system executing all payments among homogeneous consumers and firms and creating money by lending. Main results of this paper are twofold. One is that real indeterminacy of equilibria arises in the sense that consumption and capital vary according to quantity of money and nominal prices of goods and stocks. Second is that bubbles of stock prices occur even if the net supply is not zero. To clarify the relation to the Black-Sholes type stock price represented by a geometric Brownian motion, linearity of production functions is assumed. The risk premium puzzle is also explored.