A STRUCTURAL ANALYSIS OF PRICE DYNAMICS FOR A HETEROGENEOUS ASSET-PRICING MODEL WITH MARKET MARKER

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Abstract. Heterogeneous beliefs have been widely regarded as the basic premise for construction of asset pricing models. By taking the market maker scenario as market clearing mechanism, a heterogeneous asset pricing (HAP) model with market maker is constructed and investigated in this paper. The bifurcation theory is applied to analyze the underling deterministic system and the wavelet analysis is used to study the stochastic model. The study shows that the asset price dynamics is highly associated with the behavior of the market maker, the level of activity of the fundamentalists and trend followers.

Keywords. Market maker scenario; Market clearing mechanism; Bifurcation theory; Wavelet analysis; Numerical simulation.

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