NOISE TRADERS PERMANENCE IN STOCK MARKETS:AN EVOLUTIONARY APPROACH

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Abstract.

In a series of papers, De Long, Shleifer , Summers and Waldmann (DSSW) study a model of a stock market in wich there are both rational traders, whose price expectations reflect markets fundamentals, and noise traders, who misperceive them. Surprisingly enough, DSSW show that there are cases in which noise traders do survive and even prosper, contrary to the classical thesis of Friedman that only the rational stay in the market in the long run. The analysis of DSSW, however, leaves many questions unanswereved. The crux of the issue is the following: if noise traders misperceive fundamentals and are a relatively "large" part of the market, they create distortions on market prices. Therefore, a dynamic model of price determination must explain how the effect of noise traders' misperception on prices interacts with the changes in wealth and (possibly) in the proportion of noise traders as time unfolds. A dynamic general equilibriumframework is called for . In the absence of such a framework, DSSW must limit their attention to the analysis of the long run distribution of the wealth under the assumtion that noise traders do not affect market prices. In this paper we try to take a first step toward a model that encompasses the analysis of DSSW;our purpose is that of determi-ning the dynamics of the proportion of behavioural types, of whealth shares and of stock market prices within the same model. adopt one of the standard approaches to the modelling of evolutionary dynamics, according to which a type's proportion increases if and only if its payoff is larger than the average one.