The Impact of Imitation on Long Memory in an Order-Driven Market

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Aims and scope →

1. We are grateful to four anonymous referees who provided useful suggestions and feedback. Barkley Rosser provided useful comments on the authors' earlier work that inspired the research questions addressed in this paper.

2. See LeBaron [2001b] for an example of how endogenously changing heterogeneity in investor strategies can impact observed market behavior.

3. See Khandani and Lo [2007] for information on how this situation might occur with quantitative hedge funds.

4. The use of k here represents a crude form of heterogeneous risk aversion in our population. Both buyers and sellers demand some premium beyond their

6. See Vriend [2000] for a general discussion.

7. It is beyond the scope of this paper to discuss long-memory processes. Interested readers should consult some recent surveys which include Baillie [1996], Robinson [2003], and Doukhan et al. [2003]. See also Parke [1999] for examples, intuition and discussion. Recent work in finance shows that volatility is a likely candidate for long memory even at longer horizons than intraday. For examples see Ding et al. [1993], Baillie et al. [1996], and Andersen et al. [2003].

8. The Lo test is one of many long memory tests, and is based on earlier R/S analysis. The test has been criticized in Teverosvsky et al. [1999] and Willinger et al. [1999]. Their Monte-Carlo experiments show that the test can accept the

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