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# Boom-bust dynamics in a stock market participation model with heterogeneous traders

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## Abstract

The boundedly rational heterogeneous agent literature can be considered to have properly started with a number of contributions in the early 90s, with the impressive contribution by Carl Chiarella who, amongst his huge field of research, developed several milestone models of heterogeneous interacting agents that are able to generate a number of dynamic outcomes compatible with the empirical evidence.

In this paper, we propose a stock market model in which participation depends upon an attractiveness measure related to the market activity and the fundamental value of the market. A market maker adjusts the stock price with respect to the current endogenous excess market demand which, in turn, depends on the demands of the different types of agents populating the economy. Market participants are also allowed to switch between different strategies. Analytical and numerical results confirm how the participation mechanism amplifies the occurrence of endogenous booms and busts, in line with empirical and experimental evidence.

**Keywords:** stock market participation; heterogenous traders; boom-bust dynamics; evolutive systems.

**JEL codes:** D84, E32, G12

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