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A Finite Model of Riding Bubbles*

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Abstract

When asset prices boom over extended periods of time, many investors begin to worry about bubbles. However, even those who believe that assets are overpriced may stay in the market believing that they can rise even further before correcting. Abreu and Brunnermeier (2003; AB) model this idea in an environment with rational and behavioral agents, and more recently, Doblas-Madrid (2012; D-M) constructs a fully rational version of the AB model. These models conceptualize a bubble as a boom that is at first justified by fundamentals, but overshoots as asymmetrically informed agents ride the bubble hoping to sell to a greater fool. A critique of these papers is that, although bubbles are finite, they can only arise in equilibrium if prices can grow at extraordinary rates indefinitely. In this paper, I articulate this critique in a simplified D-M environment and show how it can be overturned by modifying investors' strategies. If the number of periods an investor plans to ride the bubble is conditional on her signal of fundamental value, one can sustain speculative bubbles in a finite model, where by construction it is impossible for prices to boom indefinitely.

JEL Classification: C72, D82, D84, G12

Keywords: Bubbles, Speculation, Asymmetric Information

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