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EXISTENCE OF CAPITAL MARKET EQUILIBRIUM IN THE PRESENCE OF HERDING AND FEEDBACK TRADING

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This paper attempts to establish the existence of equilibrium, in an asset market inhabited by two representative investors with different risk aversions. In order to capture heterogeneity in information and wealth, the paper segments the investor population into two: (i) Individual investors and (ii) Institutional investors. Based on prior literature, the present study posits that Institutional investors demonstrate rational intentional herding and positive feedback trading (buy when the markets rise and sell when it falls) and individual investors demonstrate negative feedback trading (vice versa). In other words, when the markets are (monotonically) increasing, institutional investors, expecting the trend to continue would buy more, thus demonstrating decreasing absolute risk aversion. Similarly, when the market is (monotonically) decreasing he will try to stem his loss as soon as possible, demonstrating increasing absolute risk aversion. Such an investment behavior is captured in a power utility function. Further, negative feedback trading by individual investors implies that when market is (monotonically) increasing individual investors, expecting the trend to reverse, would sell. Thus demonstrating increasing absolute risk aversion. And when the markets are (monotonically) decreasing, they would hold on to their investments expecting better times to come, thus depicting decreasing absolute risk aversion. Such investment behavior is captured by a quadratic utility function. Given their wealth and investment behavior, the two investor groups would trade with each other such that the market clears. To the best of our knowledge this is the first paper that proposes a asset pricing model that not only allows for behavioural biases but also for heterogeneous agents who are affected differently by these biases. This paper establishes the bounds for the absolute risk aversion function and the shadow rate of interest at which the two investor groups will lend money to each other to enable trading and market clearing. For reasonable endowments and presumed behavioural biases as implied by the chosen utility function, a numerical example at the end of this paper shows that the market clearing interest rate (at which the investors would lend to and borrow from each other) occurs between 15.5% and 28.05%.

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