"Herding, Contrarianism and Delay in Financial Markets" by Andreas Park and Daniel Sgroi

PRESS SUMMARY

We all know what can happen if market traders herd: they can act simultaneously in huge numbers driving prices up or down, generating apparent frenzies or crashes, but is this part of an efficient market with rational traders, or is this evidence of irrational exuberance by market practitioners?

For the last few years Andreas Park (University of Toronto) and Daniel Sgroi (University of Warwick) have been running one of the largest studies ever examining the scope for herding and contrarian behaviour by financial traders in a controlled laboratory experiment. They have over 3000 trades in their dataset which includes full details about traders' information and incentives when their choices were made. The main advantage of studying behaviour under controlled conditions is that researchers have precise knowledge about the information available to traders and the implied optimal decision, thus allowing key insights into exactly why traders act as they do.

In their laboratory experiments, Park and Sgroi are the first to provide *rational* reasons to herd or be contrarian in settings which parallel those in the real world: traders have only partial information, can trade when they wish and multiple times, and may be attempting to learn from each other to maximize their chance of making money.

The traders in their experiment who do herd or act as contrarians typically do so when their information is as theory predicts. Consider first the potential herders, and imagine three possible scenarios concerning a bank which is facing possible bankruptcy. The government might bailout shareholders, it might nationalize the bank, wiping out shareholders, or it might do nothing. If traders believe that the government will most likely do something, then theory predicts that rational traders can herd. How? The traders might first believe a bailout is likely but seeing a few more sells than buys early in the market, they might then lean strongly towards believing in a likely nationalization, quickly dismissing the possibility that nothing will be done. They then join the sell-herd, further depressing the price. Rational contrarians, who might think the government will likely do nothing, would react by buying when seeing the downward spiral of prices.

In the experiment, traders often act in clusters, with a typical subject trading within seconds of the observed trades of others, which can only exacerbate herding concerns. Moreover, continuing the example, the potential herders have mixed information and are waiting for information to guide them about whether a bailout or nationalization is likely. These types will wait longest, and seeing an early imbalance of activity in the direction of sells, they can create a sudden move in the sell direction, displaying a strong leader-follower tendency. Equivalently, an imbalance of buys can just as easily create a sudden buy-herd.

How is this relevant to the current financial situation?

Policies designed to "correct" the alleged sensitivity of the current system towards "irrational exuberance" might be missing an important cause of herding: the way rational humans learn from each other. Thus to avoid herding in the first place, governments and financial authorities should stick to clear rules and avoid opaque discretion. Unpredictable discretion can cause people to expect extreme outcomes instead of developing a clear view of future courses of action. The media plays a role, too: in times of great uncertainty, the extreme views commonly presented ("Stocks are cheap!" vs. "The day of reckoning is yet to come!") generate the perception that extreme outcomes are imminent – giving rise to an increased likelihood of rational herding in the first place.

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