THE UNDERCOVER ECONOMIST TIM HARFORD

The herd instinct

The recent collapse in the stock market has a perfectly rational explanation

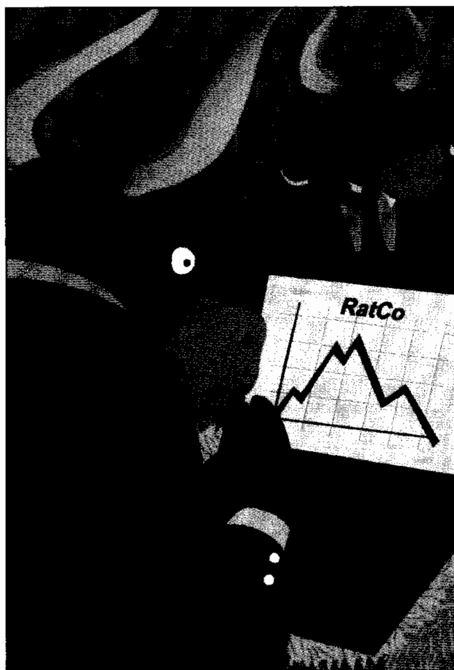
Every now and then, the markets are gripped by a strange madness. The recent sudden sharp slump in share prices has many commentators recalling October 1987, when the Dow fell by more than a fifth in a day. What is odd about that "Black Monday" is that the collapse was so swift and yet so brief – in retrospect, just a blip in a 20-year bull market.

Small wonder that at such times we can only conclude that animal spirits are at play. What else could explain buying frenzies and desperate crashes? The FT's own Tony Jackson recently put this received wisdom very clearly: "What we have here is the Greater Fool Theory. This says that even though you are perfectly aware a thing is overvalued... you keep buying it anyway. Why? Because the thing is still going up. When the time comes, you will find a Greater Fool to take it off your hands. Until, of course, the music stops, and the Greater Fool turns out to be you."

Such sentiments pose a problem. Economics is the study of rational behaviour and does not easily accommodate Greater Fools. Some economists have responded by broadening their subject to develop a school called "behavioural economics" in which people do make mistakes. The best known practitioners are Richard Thaler, Andrei Schleifer and Robert Shiller, who is now the most famous of those who argued that the valuations of the dotcom years simply could not make sense.

But conventional economics is not wrong – or at least, stock-market crashes are no evidence against it. Rational investors in an efficient market should produce frenzies and crashes from time to time. In fact, the more intelligent the investor the more likely this is to happen.

The fundamental insight is that there is nothing irrational about trying to learn from what other people in the market are doing. Remember that shares have a true value based on the future stream of company profits. But nobody knows what that value is. Smart investors should realise that other smart investors will know things that they do not. If they don't take into account their private information, they will make bad decisions, and they can learn only by watching what other people do.



Imagine our rational investor is thinking of buying some shares in RatCo. If she sees RatCo stock rising, that is a signal that other investors agree it's a good stock. She should follow the herd and would be perfectly rational to do so. Herds usually run together for a good reason.

If many other investors are in a similar situation, there will be a rational buying frenzy for RatCo stock. On the other hand, if nobody follows those early buyers, everyone in the market learns something new and alarming: the early buyers were outliers and few people are even close to agreeing with their optimistic assessment. The stock will crash, and the crash will be rational.

The economists Jeremy Bulow and Paul Klemperer set out this view in 1994 in a paper titled "Rational Frenzies and Crashes". My account is rather literary but they were able to formalise it in a straightforward mathematical model. Yet the idea has not caught on in the wider world. Most people prefer the simpler explanation that investors are just dumb. Bulow and Klemperer did not prove that investors are rational, but they did show that since rational investors will still look at what other investors are doing, the result will sometimes be price drops and spikes that seem whimsical. So if the market falls 20 per cent on Monday, there may be a perfectly logical explanation.