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Retail investors and derivative markets

Research shows that retail investors don't distort derivative market fundamentals but enhance price efficiency and liquidity

VIKRAM LIMAYE

Regulators all over the world, time and again, have expressed concern regarding the participation of unsophisticated small investors, either directly or through unconventional funds, in derivative markets. For example, the US Securities and Exchange Commission in its public statement on pro-active regulation of derivatives issued on December 11, 2015, stated that "retail investors might find it challenging and difficult to comprehend and appropriately weigh the trade-offs posed by sophisticated and complex investment strategies". The South Korean market regulator, Financial Services Commission, recently tightened the qualification criteria for participation in derivative markets. One of the key officials said that the purpose of these regulations was to "prevent retail investors from making reckless investments and incurring huge losses". Indian market regulator, the Securities and Exchange Board of India (Sebi), echoing a similar view, has from time to time made rules governing the participation of retail investors in the derivatives market.

A common theme underlying all the above regulatory actions is that small investors are not sophisticated enough to understand the working of derivatives markets, and hence by indulging in "reckless noise trading" in derivatives such investors not only lose money but also damage market fundamentals by increasing volatility, reducing liquidity and reducing the informativeness and efficiency of prices. In this article, I focus on the impact of retail investor participation in derivative markets on market fundamentals. The impact on retail investors themselves requires a separate discussion.

Surprisingly, when I started looking for some evidence regarding the impact of retail investors on derivative markets, I could not find much beyond anecdotes and statements based on ideological beliefs. Even more surprising is the fact that there is little academic work on this subject although the topic is of extreme importance even from the point of view of understanding the markets. Much of the focus has been on the role played by small investors in the spot markets. While some scholars view such participation positively from the point of view of market fundamentals, others show that such trading harms market efficiency and increases volatility. However, findings from the above studies cannot be applied straightaway to derivatives as, by design, derivative contracts have some peculiar features that are not present in the spot markets. For example, most derivatives work on margin, have specific expiry dates and are amenable to complex strategies.

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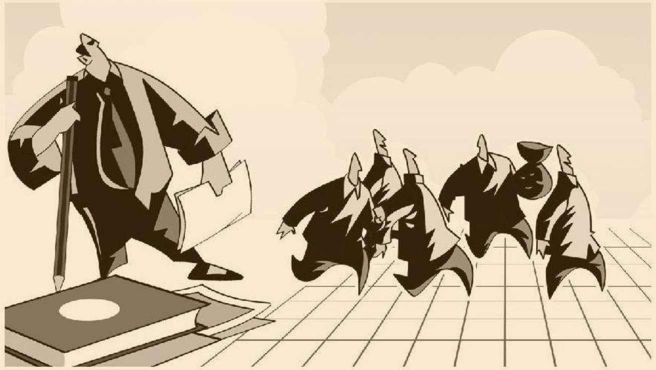

Researchers at the NSE-ISB investment laboratory have looked at this issue in depth. In a recent paper on the subject they exploit the movement of retail investors in and out of derivative markets caused by a change in the lot sizes of single stock futures. Every six months, exchanges adjust the lot sizes of derivative contracts based on lot value. The idea here is to keep the derivative lots within a reasonable range. Their research design ensures that the movement of retail traders, in and out of derivatives, is caused solely by the rule change and not by any other factor that could have an impact on market fundamentals and retail participation. Such a design is essential to separate causation from mere correlation. They also carefully account for other possible observable and unobservable confounding factors.

The research shows that retail investors actually increase price efficiency of stocks. Price efficiency is the ability of stock prices to quickly reflect all available information. It is well known that a close to efficient market can lower the cost of capital and support real growth. This means that retail investors in the derivative segment bring in information not available to markets and thereby quicken the process of price discovery. Not surprisingly, the researchers also find that the entry of retail investors enhances liquidity. Liquidity contributes further to reduction in the cost of capital. Our internal research shows that a large majority of retail traders in the derivative segment are seasoned traders with reasonable experience. Therefore, it is quite plausible that such traders enhance liquidity and price efficiency.

However, their finding relating to volatility is surprising. Contrary to the beliefs of regulators all over the world, they find that the entry of retail investors does not increase volatility of stock prices in the derivative markets. In other words, retail investors do not act as random noise traders and distort the fundamentals of derivative markets. On the contrary, they contribute positively by enhancing price efficiency and liquidity.

The point of this article is not to advocate a laissez-faire regulatory regime. Reasonable restrictions and controls on market participants is desirable and absolutely necessary. India has one of the most stringent entry requirements in the form of KYC norms and the regime has worked well. Also, the products are approved by the Sebi and are plain vanilla derivatives. However, it is crucial that assertions and policies are backed by solid evidence. Policy debates in India are, unfortunately, mostly based on ideology or personal belief rather than rigorous analysis of available evidence. Techniques of modern day finance, developments in the area of financial econometrics, and advances in the area of big data analytics have made testing important hypothesis using rigorous frameworks possible.

We at NSE encourage a wider debate on the subject of participation of retail investors in the derivative markets. I do not want to claim that the finding of one paper is the final truth on the subject. It will help the cause of policy makers, regulators, retail investors, and capital markets if there is more rigorous data-based research on the subject. Such an exercise is also likely to create a wealth of evidence for regulators and exchanges to consider before taking crucial decisions.

The author is the CEO and managing director, National Stock Exchange