



Daily Note

TO THE MOON AND BACK: DOES ROBINHOOD CREATE SYSTEMIC RISK?

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- The GameStop craze highlights the risk of a financial bubble forming
- Robinhood trading creates distortions to market volatility and liquidity
- But it does not seem to have the potential to pose a systemic threat

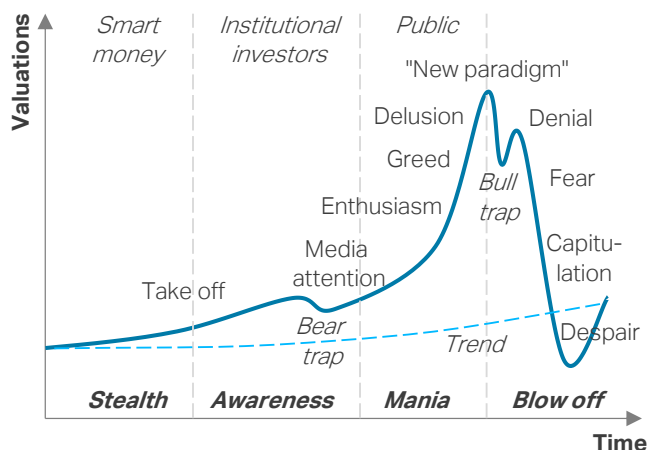
Take me to the moon. Much has been written about the involvement of retail investors in the stock market since last June. But coverage reached fever pitch over the past two weeks as Robinhood traders, spurred by discussions on the WallStreetBets subreddit, sought to take stocks such as GameStop and AMC "to the moon". They succeeded, causing considerable pain for institutional short sellers along the way. Just like the Apollo missions that reached our satellite in the 60s and 70s, however, those stocks have now come back to Earth.

Symptom or cause? But while the excesses of the likes of GME and AMC have been undone for now, the question investors are asking is whether these are isolated cases or symptoms of a more fundamental issue. Could the broader stock market come crashing down too? To put it another way, are Robinhood traders a threat for the financial system?

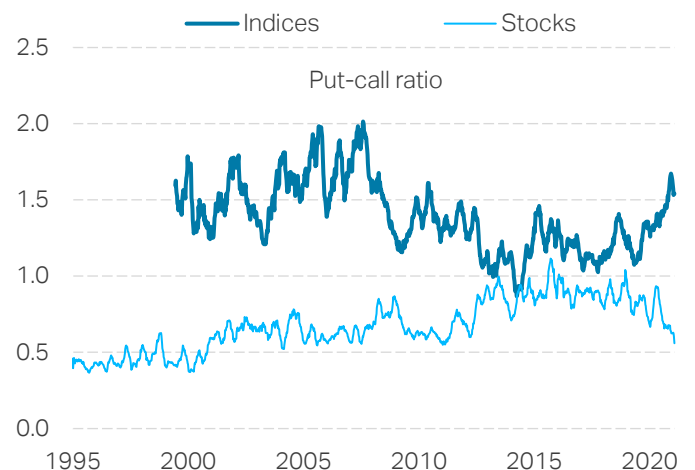
To dismiss the possible systemic implications of retail investors would be a mistake.

Retail activity in 2020 accounted for up to 25% of the total, up from 10% in 2019. Additionally, much of the increase in trading activity happened in derivatives, which allow investors to leverage up their positions to several times the size of the capital they in effect deployed. In order to answer the question of whether this constitutes a systemic threat, we consider three areas below: **volatility**, **market quality** and **bubble risk**.

Robinhood trading: no signal, more vol. In contrast with previous research showing that retail order flow predicts future stock returns and earnings surprises, a [recent study](#) found no evidence of this happening for Robinhood trades. The authors also argue that Robinhood

Chart 1. A typical bubble's life cycle

Source: Prof. Jean-Paul Rodrigue

Chart 2. Hedging or speculation? Both.

Sources: TS Lombard, Bloomberg

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trading tends to create extra volatility, showing that when the platform experiences an outage, the most popular stocks on WallStreetBets are less volatile.

Robinhood trading is also damaging to market liquidity, according to the study. The zero-commission trading business model is based on the sale of order flow to high frequency traders (HFTs). HFTs pay the broker fees because they profit from the information contained in the retail order flow. Normally high frequency trading would improve market liquidity; but because Robinhood traders are more likely to cause spikes of volatility, market makers reduce the size of their inventory to reduce its risk. Overall, this leads to lower liquidity.

Bubble trouble. So, research shows that Robinhood traders create extra volatility and are not particularly good at price discovery, and that their actions tend to result in lower liquidity. While the picture emerging is less than flattering, the degree to which this is happening does not seem large enough to raise systemic-risk concerns. But what about the ability to create bubbles? If they were able to drive up the price of GameStop by 2400% in less than a month and then let it fall back 90% in a week, could they be doing this to the market as a whole?

The right stuff. We have been concerned about the risk of a possible [bubble in Tech stocks](#) since July last year, roughly at the time when stories of a surge in retail activity started to emerge. All the ingredients that a bubble needs to inflate – solid fundamentals, ample liquidity and a compelling narrative – were present then and are still present now. But the WallStreetBets saga has suddenly made the bubble argument very plausible for a lot more people.

The involvement of retail investors is a hallmark of a bubble's 'mania' phase, as is enthusiasm turning into greed, turning into delusion, turning into calls of "new paradigms" (see Chart 1 above). Financial innovation is often a trigger for bubbles: in the late 2000s it was subprime mortgages, CDOs and the rest of the credit alphabet soup, which led to speculation in the housing market; this time it could be the invention of zero-commission trading and user-friendly apps, opening up stock-market betting to the masses. Another hallmark of a bubble is the use of leverage, which is implicitly used by Robinhooders when they purchase call options. As a result of the frantic call-buying, implied volatility has been stubbornly high in the past several months. This is very unusual during a bull market.

Leverage plays a special role in bubbles: its build-up helps asset prices soar to levels that could not be reached otherwise, but its forced unwind during the blow-off phase depresses them below fair value. As Chart 2 above shows, investors (mostly retail) have been piling into single-name call options, bringing the put-call ratio to its lowest level in 10 years, and not far from the excesses of the late 1990s. At the same time, other investors (mostly institutional) have been buying puts on indices in an effort to hedge the downside risk.

The best cure for high leverage is high vol. The good news is that high implied volatility on the hot WallStreetBets names is a natural obstacle to leverage build-up. At the height of the GME craze, the stock's implied vol exceeded 500%, making call options not much cheaper than the stock itself. Also, Robinhood traders seem to favour short-dated options (perhaps because they are more "affordable"), which means that any forced-deleveraging phase would not last long.

Watch out for further leverage build-up. All this suggests that while the Robinhood phenomenon creates distortions to stock volatility, liquidity and price discovery, and has some of the characteristics of a financial mania, it nonetheless does not seem to have the potential to be a systemic threat. That said, markets are priced for perfection and are susceptible to changes in sentiment and to both endogenous and exogenous shocks – such as earnings disappointments or shifts in monetary policy. With multiples as high as in 1999, investors will need to look out for [further build-up of leverage in the financial system](#) as a symptom of stock-market excesses. While it may not come from Robinhood investors, that would make it no less troublesome.