Get ready for a roller-coaster ride

In 1995, Charlie Munger coined the term “Lollapalooza effect” to describe a confluence of several factors, all influencing in the same direction, causing an extreme outcome. While he used the term in a psychological context, it can be used to describe recent stock price movements in the US as well.

Over the past few trading days, the US has seen (in value terms) both the biggest gain of a stock in a single day (Amazon gaining $191bn on February 4), and the biggest loss of a stock in a single day ever (Meta Platforms losing $252bn on February 3). These one-day moves happened within minutes of the companies releasing their earnings announcements.

What could possibly have caused such extreme moves so quickly? It is impossible to know for sure, but I reckon the confluence of the following factors is causing these extreme outcomes in US equity markets:

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Algorithmic trading

These days, trading at micro-level (the process of bids and offers actually matching and a trade taking place) is driven by algorithms, employed by both stockbroking firms and proprietary trading firms. Trade orders are broken up into small chunks (bids and offers) which an automated trading system then routes to various exchange venues.

Depending on the trading system’s observations of how aggressive other market participants are, an algorithm will direct the trading system to “cross the double” (match with the best bid or offer and thereby trade), or withdraw the routed bid or offer and reroute a new one at a slightly different price.

These algorithms have been programmed based on game theory, and they fire off hundreds of instructions per second (hence the term “high-frequency trading”).

Typically, when there is a particularly aggressive participant in the market, the algorithms would cause trading systems on the same side to try to outcompete each other (to become even more aggressive) and trading systems on the other side to retreat. This causes liquidity to dry up during periods of heavy buying or selling pressure, which exacerbates price moves when either buyers or sellers are very aggressive.

Machine-reading bots

Earnings announcements run into many pages, and billions of dollars ride on the quickest determination of whether the announced results are above or below expectations, and updating the estimated fair value of the stock for trading purposes. The quicker it is determined whether the earnings are a “beat” or a “miss”, the better the chance of buying or selling the stock at the best possible price.

This time-sensitive task has mostly been handed over to machines. A machine-reading bot would use neuro-linguistic programming to “read” an earnings announcement in a fraction of a second, and conclude whether it is positive or negative for the stock’s sentiment. The bot would also automatically scrape the financial figures from the announcement, feed them into a proprietary valuation model and update the price at which the automated trading system should execute trades.

With the increased adoption of such bots, a flood of buying or selling pressure hits the market in a flash after an earnings announcement.

Increased option activity

In mid-2020, for the first time, the daily notional value of US option trading started to exceed the daily value of stock trading. Since then this trend has accelerated, stimulated by retail traders’ easier access to options markets.

Investment banks which sell options need to hedge their exposure, referred to as delta hedging. When stock prices move sharply, the delta exposure changes even more sharply, forcing the bank to become an aggressive buyer or seller of stock to maintain a hedged position. The extent of delta-hedging activity in most stocks is now so extensive that it can feed on itself.

Passive funds

Most money invested in US stocks is held by passive funds, whether mutual or exchange traded funds. These funds typically issue or redeem units daily, based on closing prices.

This has contributed to most trading activity shifting to the closing auction, which is the point at which the price for the volume of units to be issued or redeemed by the passive fund is determined. A spike in closing auction trading volume necessarily means a drop in trading volume throughout the rest of the trading day, exacerbating the impact active investors and traders can have on prices.

While any one of the factors mentioned could cause a meaningful movement, their combined influence could very well be causing the extreme US stock market moves observed recently.

And with no indication that these factors are going away any time soon, investors should prepare for more volatility ahead. **x**

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