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GameStop, AMC and single-stock volatility: Thus far a micro issue, not a macro issue

Capital market volatility over the past few trading days has been at least partially linked to activity emanating from a small list of individual stocks. This activity has bounded from chat rooms to trading platforms to financial media to social media and now to living rooms and kitchen tables around the world. While financial market observers point to various stocks demonstrating abnormal trading volume and price movements in the past week, video game retailer GameStop and theatre chain AMC Entertainment Holding's respective stocks are at this phenomenon's epicenter. This has appeared to pit individual investors against certain types of professional investors on the direction of these stock prices. This piece will discuss what has happened and provide our thoughts on investor and market implications.

A quick primer

To begin our discussion, not all readers may be familiar with how one type of professional investor — a long/short equity hedge fund — operates. While long/short equity managers can use a variety of tools, and we should hesitate to generalize about entities that have very distinct investment philosophies and skill sets, these managers can both own/purchase securities (referred to as "going long") and affect a transaction known as short selling ("shorting") by borrowing a security, promptly selling the same security, and then buying it back before returning said security to a lender. A short seller earns a profit on a short sale when their short price exceeds the price at which they buy the security back including borrowing and other costs.

To use an example, let's say Hedge Fund X is a manager who focuses on linking fundamentals like earnings with stock prices and trades based on discrepancies. They buy stocks that appear cheap to fundamentals and sell short companies that appear expensive. Hedge Fund X analyzes fictitious company Profitless Incorporated, pouring through its financial statements, listening to company management discuss their business plans and polling suppliers and purchasers about Profitless Incorporated's prospects. Hedge Fund X concludes that, true to its name, Profitless Incorporated has a very challenged business model and will struggle to deliver earnings at levels other analysts forecast and its stock is price implies.

Hedge Fund X decides to short Profitless Incorporated's stock, borrowing the stock through Hedge Fund X's prime broker. A prime broker provides a variety of services to hedge funds, but a key service is sourcing shares of stock that a hedge fund wishes to sell short. These so-called "borrows" come at a fee to the lender, largely determined by supply and demand. Stock owners such as institutional investors like pension funds or large mutual fund complexes may not want to lend out their stocks for others to sell short, and if enough supply dries up, the cost to borrow those shares may extend beyond levels that Hedge Fund X deems profitable for a given trade. A visual description of this process is highlighted on the next page.

Hedge Fund X can express a view that Profitless Incorporated will fall in value through other means beyond selling the stock short. Tools available to Hedge Fund X include but are not limited to using options listed on an exchange, single stock futures, inverse exchange traded funds (ETF), and custom option and forward contracts that do not trade on exchanges facilitated by investment banks or dealers. A primer on all the ways Hedge Fund X could express a view on Profitless Incorporated extends beyond this piece's scope; please contact your U.S. Bank representative if you would like more information.

Now that we have discussed some mechanical background, this primer's most important takeaway is the concept of *defined risk*, a concept we will revisit throughout this piece. If Hedge Fund X sells Profitless Incorporated's stock short, Hedge Fund X profits if the stock falls below the cost of the shares Hedge Fund X borrowed. Hedge Fund X's maximum profit on that position is the share price minus the borrowing cost; if Profitless Incorporated's stock is trading at $80 per share and it costs $2 to borrow its stock to sell it short, the best case scenario for Hedge Fund X's profit would be for Profitless Incorporated's stock to go to zero. For every share that Hedge Fund X sells short, its profit would be $80 (the sale price on borrowed shares) minus $2 (the borrow cost). This equals $78 per share.

However, Hedge Fund X, in theory, has limitless defined risk on that short position. Let's say that Hedge Fund X's research process is off base and Profitless Inc. is about to release a product with significant global appeal. The product release is met with massive fanfare; Wall Street analysts predict Profitless Inc. will have to change its company name due to the likely earnings windfall, and Profitless switchboards are flooded with investment bankers lining up prospective acquirers. The stock rallies from $80 to $130 as investors anticipate ongoing demand and subsequent product offshoots that could further bolster sales and earnings. Hedge Fund X has a decision to make: Maintain its short position or exit the position, also called "covering their short," at a loss of $130 (price at which they buy and deliver their borrowed stock) plus $2 (the borrow cost), plus additional margin cost imposed by their primer broker (details of those charges are outside the scope of this piece, so we will set them at zero for illustrative purposes), minus the $80 sales price. This equals $52 per share. This example of a stock rising in price and forcing a short seller to decide what to do is commonly referred to as a "short squeeze."

As noted above, we stated that Hedge Fund X's risk was limitless *in theory*. We use that phrase because, in theory, investors can bid up Profitless Incorporated's stock to infinity, and Hedge Fund X (which would in practice be wiped out by margin calls and investor redemptions long before we reach the theoretical infinite Profitless Inc. share price) would be on the hook to buy back its borrowed Profitless Inc. stock at an ever-ascending price. Very simply stated, when you have a short position in a security with limitless upside, your risk is limitless.

The GameStop and AMC Holdings phenomena

We wanted to include the primer to apply the hypothetical to actual events. Over the past seven trading days, at their peaks, GameStop and AMC Holdings have rallied 1,239 percent and 651 percent, respectively. These movements are beyond abnormal for any company or asset over such a short period of time, driving concerns about how such moves are possible and whether something nefarious underlies these movements. To be clear, this piece will not address the fundamental prospects for either GameStop of AMC Holdings as companies or express our views on their underlying securities. Instead, we will describe what has happened to date and offer our perspective on a very fundamental question: Should investors be concerned about investing in a market where these types of moves can occur?

Capital markets are dynamic entities, where buyers and sellers converge and for every trade, one side is profitable while the other is not. People meet in markets of all types — grocery stores, sports memorabilia venues and countless others. Economists and analysts generally assume market participants seek utility of some type when engaging in a market; buyers are willing to pay for a good or service or asset that they get use from, and sellers receive capital for the good or service they dispatch, which in turn offers utility to them. Market participants are motivated by seeking profits or utility of some sort; this is the heart of Consumer Theory, an important branch of economics.[1]

Motivation is a key consideration surrounding what happened in the runup of GameStop and AMC Holdings. Investors across several social media and social news networks, including Reddit, which has an established userbase who frequent Reddit's WallStreetBets forum, have touted both companies' stocks for a variety of reasons. Some posts speculated on their fundamental prospects once global economies more fully reopen and advocated for others to join them in buying and holding the stock. Some posts specifically targeted short sellers in general and others by name to "squeeze" and force hedge funds to cover their shorts at much higher prices. Other posts struck a nostalgic tone, reflecting on days past when attending movies and buying video games occupied more of their time. Through a combination of crowdsourced interest and vocal posts, investors took to both the stock market and the options market to express positive views on both companies' stocks.

As the saying goes, nothing draws a crowd like a crowd. Those motivated by profit, those making a social statement against institutional investors short the stock and those simply along for the ride piled into the stock market and also the options market in record volumes[2]. Even companies with stock tickers somewhat similar to GME and AMC saw their stock prices rise; the crowd was buying the wrong stock and may not have known it!

As we discussed in the primer section above, when a short position moves against a hedge fund, they have decisions to make. In addition to facing margin calls, they also must consider their fund's overall risk profile; if one part of their portfolio is extremely volatile and is not offset by another part of their portfolio, they will deviate from what the industry refers to as their "risk budget." Most long/short equity managers tout to investors that they manage to a risk budget, and experiencing portfolio volatility outside of that budget can drive underlying hedge fund investors to exit their interest in that hedge fund.

Implications

Wednesday, January 27, reflected the biggest drop in major domestic equity indices since October. Investors worried that hedge funds would be forced to de-risk their portfolios and sell additional positions to satisfy margin

[1] Levin, Jonathan and Paul Milgrom. *Consumer Theory*. Stanford University, October 2004. https://web.stanford.edu/~jdlevin/Econ%20202/Consumer%20Theory.pdf Accessed 1/28/2021.
[2] https://www.bloomberg.com/news/articles/2021-01-26/froth-in-retail-options-now-dwarfs-level-of-august-boom-and-bust Accessed January 28, 2021.

calls or dampen overall portfolio volatility. Some notable hedge funds impacted by short squeezes sought additional funding and others signaled abnormal losses to their investors as a result of moves in GameStop, AMC and other heavily-shorted stocks.[3] In addition to concerns about near-term spillover effects into other markets, market observers took sides about whether it was fair for the “herd” to target short sellers and if their tactics were legal.

In reflecting on our own views on this issue, without wanting to drive forward too much more economic theory, using the distinction between positive and normative economics offers a helpful framework. Positive economics describes and explains “what is.” Normative economics offers value-based judgments on “what should be.”[4] From a positive perspective, we have explored what has happened as the crowd, with its varied motivations, drove equity prices of heavily shorted companies higher.

From a normative standpoint, we stand for fairness. As professional investors, we are swarmed with information and resources. Many lists circulate from prime brokers and security research departments that include stocks with very high short interest relative to their outstanding share count or the most popular or common hedge fund shorts. While we are professional investors with long time horizons, we accept that social media and social news investors with very short time horizons can act on those lists just like short sellers can act on lists of heavily-owned stocks by mutual and pension funds. In our opinion, it is not that particular information, but how investors use that information, that is the key to maintaining an orderly and fair market for all participants.

Akin to the technology arms race for fast trade execution that led to unfair trading results for certain market participants as documented in Michael Lewis’ 2015 book *Flash Boys*, steps should be taken to ensure that content posted on any site is not misleading or drives activity that can harm investors or manipulate security prices. Free speech on social media platforms is not a position we will argue about in either direction in this publication. However, when market structures are threatened, meaning that information is not flowing freely and bad actors on either side of a trade are offering misleading information, we side with taking steps to ensure a fair and level playing field for all investors, retail and institutional. We do not think the past few days’ trading activity has shaken investor trust or reflects a material change in market structure; a few days’ activity does not a trend make. However, we will continue to monitor developments and share our thoughts with you. For one, we expect hedge funds to rethink components of their risk models and their short selling practices.

We view increased participation in capital markets as a positive. We have a savings and retirement crisis in this country, and having more people involved in managing their savings and financial future is needed. The tools they use, the information they draw from, and perhaps most importantly their ability to define their own risk will be critical to helping them shape their financial futures.

We do not view recent movements in a handful of stocks (the “micro”) and Wednesday’s capital market movements as symptomatic of a broader macro issue. We agree there should be more exploration and inquiry into the micro considerations, so they do not grow into macro problems. As we have shared in many client missives, we are optimistic on the path ahead for economic acceleration due to the confluence of vaccine progress, central bank policy and corporate and consumer activity. We are privileged to work with you and appreciate the opportunity to share our thoughts, and if we can provide further information, please do not hesitate to reach out to your financial representative. Thank you for your trust.

[3] https://www.bloomberg.com/news/articles/2021-01-25/citadel-point72-to-invest-275-billion-in-melvin-capital Accessed January 28, 2021.
[4] http://www2.econ.iastate.edu/classes/econ101/choi/ch1n.htm Accessed January 28, 2021.