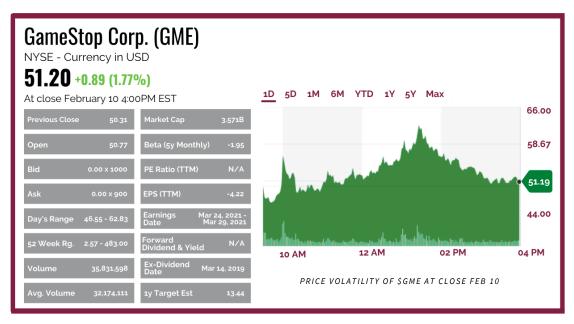




**SFU** GLOBAL MARKETS GROUP



GAMESTOP (\$GME) MARKET DATA. EXTRACTED FROM YAHOO FINANCE

GameStop (NYSE:GME) and r/WallStreetBets (WSB) are two terms that continue to flood financial media outlets. From short selling to 'diamond hands', we go into detail explaining the events that have transpired the past three weeks.

The recent news has been filled with headlines highlighting the David-and-Goliath battle between a large group of online retail investors and Wall Street's hedge funds through various 'meme' stocks such as GameStop (NYSE:GME), AMC Entertainment (NYSE:AMC), Nokia (HEL:NOKIA), Koss Corp (NASDAQ:KOSS), and Blackberry (TSE:BB). But how and why did this market phenomenon begin?

An indirect catalyst of the skirmish between online retail investors and Wall Street's hedge funds was the emergence of Robinhood. Robinhood has pulled in 13 million users, primarily because of their commission-free trades and user-friendly platform. Among the retail investors of

Robinhood and other online brokerage firms, a subreddit channel on Reddit (a discussion forum), known as /r/WallStreetBets, experienced explosive user growth, growing from a base of 2 million users in January to a tremendous 8.6 million users in early February. Generally, this Reddit channel is a forum where users gather and discuss certain stocks and investment strategies. r/WallStreetBets was founded in 2012 but has since gained international attention when users have reportedly fueled the growth of these 'meme' stocks as retail investors.

These redditors have gained a reputation for their risky investment styles, often solely through purchasing options, or pouring a lot of capital, margin and non-margin, into the above mentioned stocks. This style has led to many redditors making exponential returns, and astronomical losses all within a small time frame.

Extraordinary individual profits and losses have been posted on the forum, resulting in influencing others to invest in the same asset, prompting a snowball effect. Fueled by others, these users are known for 'YOLO' (You Only Live Once) positions, where investors pour into assets without any fundamental or technical analysis or research.

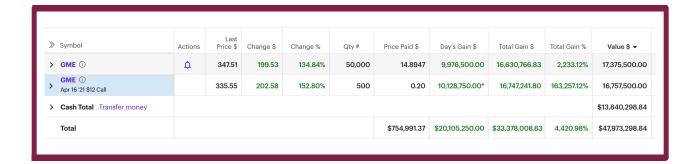
One active member of WallStreetBets, Keith Gill, or better known by his Reddit name, u/DeepF-ingValue, shared his long position in GameStop in September 2019. He claimed that the pessimism regarding the shift towards digital game purchases was overblown and argued that the business was undervalued. Gill's sense of humour, and unwavering confidence for GameStop, slowly led WallStreetBets to support him and his vision for GameStop.

Contrarily, many Wall Street hedge funds, including Melvin Capital, Citron Capital LLC, and Maplelane Capital had short-sold against GameStop's stock price, leading the equity to be 226.4 short percentage of float, meaning for every 100 shares that were available for public trading, there were 140 shares shorted.

## Short Interest? What's That?

Imagine three investors, Investor A, Investor B, Investor C, and a total of 100 shares of certain equity available for public trading. Investor A borrows 100 shares from their broker increasing investor A's short position

by 100 shares. Investor A lends the shares to investor Investor B, increasing investor B's short position by 100 shares. Investor B then sells the shares to Investor C. As we can see the total number of shorted shares is 200, while the total shares available for public trading is only 100. As a result, the short interest of this certain equity is 200 percent. The GameStop' stock price surge began on January 11th when Ryan Cohen, the cofounder and former CEO of Chewy was added to the company's board of directors. The previous year, Cohen invested about \$76 million to buy more than 9 million shares of GameStop to help restructure the organization. In a public letter to the board of directors, Cohen stated that GameStop needed to focus on providing a digital experience, and not to over-prioritize physical presence. Many retail investors supported Cohen and the idea of GameStop having a stronger digital presence, which raised its share price by a little less than 13%. With trustworthy investors in the Reddit community such as u/DeepF-ingValue continuing to support GameStop, retail investors began to mass purchase GameStop options, posting their gains, resulting in a compounding purchasing effect spiking the asset's price day-after-day.



DEEPF-INGVALUE'S POSITION IN GAMESTOP AS OF JANUARY 27, 2021, A RESULT OF MASS PURCHASES AND SNOWBALL EFFECT. EXTRACTED FROM REDDIT.COM/R/WALLSTREETBETS

### Wall St. vs. r/WallStreetBets

Citron Research, a stock-research company that provides a variety of opinions and predictions, produced an otherwise compelling report to short GameStop due to concerns that its share price was overvalued. Citron therefore suggested a price target at \$20 per share. WallStreetBets took notice of this report and began buying into long positions of GameStop stock. To understand the extent of this surge, the previously mentioned /u/DeepF-ingValue had turned his initial \$750,000 position into a \$30,000,000 position, a 400% gain in a short matter of time.

Melvin Capital, which held large short positions on \$GME, was the first hedge fund to be bailed out by other major hedge funds through capital injections. This occurred because Melvin Capital was extremely overleveraged, specifically on \$GME, and didn't possess the capital required to cover their short positions due to the extreme surge.

Moreover, when a company gets bailed out, one would expect them to restructure,

evaluate their positions, and take less risks. However, Melvin Capital did the exact opposite. They took on more short positions in \$GME.

Reddit users alongside other retail investors, took these actions personally and thus "declared war" on these billionaire hedge funds and are attempting to bankrupt these hedge funds with extreme short positions on these 'meme' stocks by initiating a short squeeze. This is where these stocks picked up momentum. Many investors were upset about the idea of short-selling and the idea of how bearish markets hurt individual investors whilst other financial institutions capture profits during economic recessions like the Financial Crisis. Many redditors had personal stories of losing wealth during this time, and these stories were posted on WallStreetBets, influencing others to pump up certain stock prices.

This is not the first time that WallStreetBets has impacted the market. In 2019, many Robinhood users found loopholes to gain infinite leverage. This loophole was made possible through taking advantage of Robinhood Gold, Robinhood's stock platform and Robinhood's options platform. To create a loop, the users would obtain leverage from Robinhood Gold, purchase shares from Robinhood's stock trading platform and sell covered calls on those shares. The value of these calls were incorrectly added to the user's capital. The user would now use their increased capital to obtain more leverage and repeat the process. This loophole was promptly addressed by the platform afterwards. Recent media exposure of this channel has led to more retail investors pouring into these 'meme' stocks, with the majority of capital allocated to \$GME as 'YOLO' positions. In terms of \$GME, this stock price surge fueled a moderately sized short squeeze.

It's hard to say whether this is the end of the short squeeze or merely the beginning.

Regardless, instances like this are rare, but do occur in some situations such as the Volkswagen Short Squeeze back in 2008.

### **Short Squeeze?**

Short squeezes occur when the price of a stock increases dramatically, causing people who have bet against the stock (shorts) to cover their positions. They cover their positions by purchasing stock, or depositing additional funds to meet the margin (borrowing) requirements.

Until January 15th, there was approximately 225% short float on \$GME, meaning for every one share, there were 2.25 shares that were borrowed (or shorted). As the share price continued to rise, many shorts would be forced to cover their positions by buying the stock back, thus creating more demand for \$GME, and driving up the share price even further.

### The Gamma Trap

Market makers who participated in selling retail investors' \$GME call options (more specifically, short-dated out-of-the-money call options) had to hedge their risk of having the call option buyer exercise their options in-the-money.

Otherwise, if the option buyer were to exercise their \$GME options for a profit, the option seller would have to buy 100 shares of \$GME per contract at a higher market price and sell it to the buyer at the lower agreed (strike) price. The option seller (market maker, in this case) would thereby forego the equivalent amount in losses. As you'd imagine, the erratic price volatility of \$GME would be a disaster for call option sellers if unhedged and in-the-money. Hence, these market makers ended up buying \$GME stock to cover their risk of incurring potential losses down the road.

This act of hedging a sold option contract is known as 'Delta Hedging'. Delta, the Greek derivative symbol, is a rough measure of how many equivalent shares are needed to hedge the risk of options being exercised.

#### SFU GLOBAL MARKETS GROUP

Gamma, the rate of change of an option's Delta price, started to increase rapidly which spurred more \$GME share purchases by market-makers looking to keep up their hedge.

Now, combine this cyclical phenomenon with \$GME call option purchases and a short-squeeze of \$GME shares (due to high short-interest) and these three catalysts become the majority reason for \$GME's share price surge.

## Adding Fuel to the Frenzy

Several influential billionaires, entrepreneurs and public figures such as Chamath Palihapitiya, Mia Khalifa, Dave Portnoy, and Mark Cuban are supporting this momentum of retail investors through social media. These notable figures have noted stark contrasts between retail investors and investment professionals.

For example, Tesla CEO, Elon Musk supported the 'meme' stock frenzy by criticizing the rationale or ideology behind the idea of shorting. He also claimed that institutional investors and Wall Street are trying to limit the power that retail investors currently have on the market.



ON JANUARY 26TH, 2021, ELON MUSK TWEETED "GAMESTONK!!" IN A POTENTIAL ATTEMPT TO PROVOKE MORE GME TRADING ACTIVITY According to CNBC, this tweet saw
GameStop's valuation shoot up by \$10
billion after trading hours on January 26th.
Additionally, Chamath recognized
WallStreetBets members as individuals that
can engage in "better fundamental analysis
than hedge funds can" and envisioned a
change in the traditional investment
practices that Wall Street had been so
accustomed to.

However, in early February, \$GME came tumbling down nearly 40% from it's all time high, yet major public figures continuously rooted WallStreetBets on and its community's ability to move the market.

Mark Cuban, owner of the Dallas Mavericks, appeared on the WallStreetBets Reddit page on February 2nd and held an open Q&A session with the redditors.

### What Goes Up Must Come Down

In the beginning of February, 'meme' stock prices tumbled. \$GME plummeted down from an all-time high of \$347.51 USD to a share price of \$63.77 USD as of February 7, 2021. Moreover, there have been rumors circulating between redditors of a 'short ladder attack' with popular stocks such as \$GME, \$BB, \$AMC, and others. A short ladder attack refers to hedge funds buying and selling with each other at continuously lower bid prices in a detailed effort to arithmetically lower the technical stock price of a company. WallStreetBets thus

speculates that hedge funds are attempting to artificially devalue the stock price to cover their short positions; its users have supported this theory through analysing some brokerages' high buy/sell ratio on \$GME, and low relative volume of trading during the share price drop.

Some redditors describe these actions as a psychological attempt for hedge funds to incite fear of a further plummeting share price and triggering investor's stop limits that automatically execute more selling. However, this has not been an officially proven tactic and no hedge funds have been named as of yet.

# Redditors Accuse Hedge Funds of Fighting Back

Whilst these 'meme' stocks were gaining popularity, hedge funds such as Citadel LLC and Melvin Capital held immense short positions, especially in \$GME. As a result of their share price surge, Melvin Capital could not cover their shorts without incurring massive losses, nearly declaring bankruptcy until other hedge funds such as Point72 and Citadel LLC injected capital into the fund to keep them liquid, resulting in their new ability to cover their short positions. Therefore, driving down the stock price would be in the best interest for these hedge funds with massive short positions. As a result, redditors believe that hedge funds have attempted to fight back by

initiating short ladder attacks, influencing the media, invading WallStreetBets with fake bots, and buying more short positions. In particular, redditors have argued that big financial media outlets have painted retail investors in the public eye as uneducated individuals, claiming that these outlets have broadcasted false intentions of WallStreetBets to support the best interest of the hedge funds in big short positions.







For example, in early February media outlets have continually reported that the '\$GME rally' has been suppressed and redditors and other investors are 'targeting' silver.

However, this push to shift the public's perspective from \$GME to silver commodities has fallen under scrutiny as Citadel LLC, a hedge fund with a large short position on \$GME of 2.5 million shares, is one of the biggest investors in silver with 6 million shares in iShares Silver Trust (NYSEARCA: SLV) at the time of writing.

To preface this redditor sentiment, it is important to realize that Robinhood and a few other brokerages had halted trading on January 28th solely on the aforementioned

stocks. These actions angered many retail investors as they were restricted to only selling their positions in these equities. As a result, these actions drove share prices down and gave hedge funds a chance to potentially cover some of their short positions at a more favourable price. Some retail investors and the WallStreetBets community believe that this trading halt was a form of illegal market manipulation. Speculation grew even further as Citadel LLC is Rohinhood's largest client in terms of revenue, and Citadel LLC is affiliated with Citadel Securities, a market maker which executes trades for Robinhood and other brokerages. However Citadel LLC and Robinhood have denied colluding with each other when Robinhood halted trading for certain high volume stocks. In defence of Robinhood, the firm had cited cash flow issues as a rationale for halting trades. Why so? Because behind the scenes of everyday trading, market makers such as Citadel Securities are connected to different brokerages to ensure buyers' and sellers' trades follow through. When they connect these traders of securities, they take on immense risk of buyers potentially defaulting. When trades go through, they go to institutions known as 'clearing houses', which certify the ownership of the trade over a period of time. During this time (usually a couple days), the market maker must cover the instantaneous transfer of funds between traders until the clearing houses settle these trades. During this frenzy, as there were huge trading volumes, and many retail investors trading on margin each day,

Robinhood and their associated market maker (Citadel Securities) were unable to keep up with these balances during these periods and ultimately halted trading.

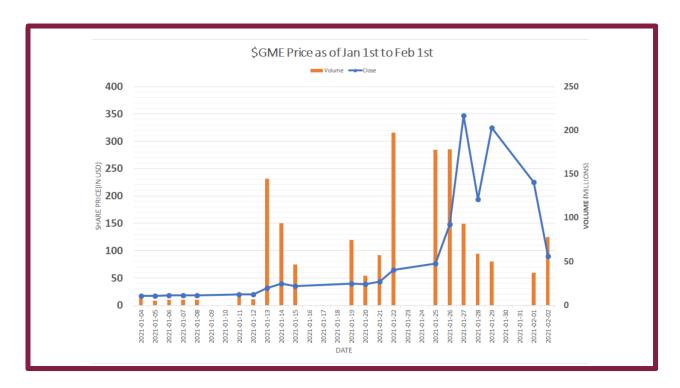
## Meme Stocks as a Savvy Investment?

Individuals who owned \$GME shares prior to the sharp price increase are reaping the benefits of low float and high demand.

Conversely, those who were short \$GME when shares were trading around \$20/share are feeling the pressure of the sudden uptick in price. However, it doesn't take a sophisticated equities investor to know that GameStop is overvalued due to GameStop's -\$470.9M and -\$673M earnings figures as of 30/1/2020 and 30/1/2019 respectively.

Moreover, \$GME's last price high was \$62.30 in 2007, a stark contrast to the \$325 that was seen on the 25th of January.

Large amounts of retail investors may come to understand the potential repercussions of holding an overvalued equity over a long period of time; the inevitable price drop could occur when least expected. Because of these extremely volatile stocks, traders have been capitalizing on these large daily price swings.



PRICE AND VOLUME CHART OF GAMESTOP (\$GME). EXTRACTED FROM YAHOO FINANCE

As pictured above, a large interest in GameStop is apparent given its rapid price increase. We can see that large volumes of shares were purchased during the upward price swings, indicating that many late investors are now stuck between either holding or taking a loss on \$GME, otherwise known as 'holding the bag'. These large swings that were accompanied by low volume were due to the altering of the ability to trade GameStop on many popular trading platforms. So, \$GME worth investing into?

The volatility and hype around these 'meme' stock securities are mostly due to speculation and other non-market factors. Traditional investing consists of fundamental analysis and an abundance of research. Will this be the new path to investing for retail investors? Or is this a once-in-a-lifetime frenzy? However, the fact that investors can make money and be a lucky investment is totally unpredictable as the stock prices are highly uncorrelated with their fundamentals.

### Potential Changes Coming to Wall Street

From observing the public scrutiny in the appearance of these sudden restrictions, we believe that moving forward, there may be regulatory changes to how brokerage platforms operate and how the public views

both investment professionals and retail investors; Retail investors have made it clear that their investment decisions can have a large impact on the prices of an asset class they concentrate on holding.

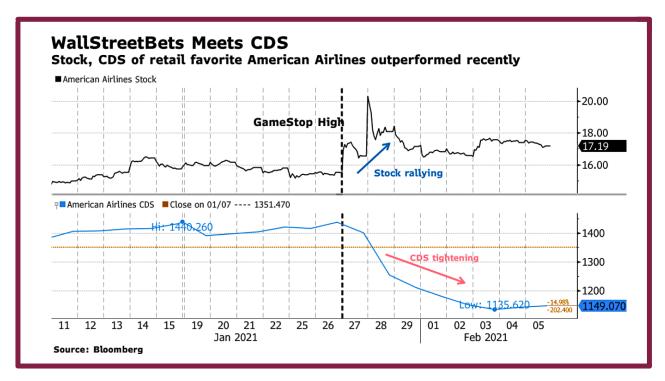
### SFU GLOBAL MARKETS GROUP

We also see a steady shift in the way that investment professionals evaluate the future performance of a security, and believe that these professionals will take discussions on online forums, such as Reddit's WallStreetBets more seriously. Their purchasing power and ability to move markets based on discussion has proven to be unparalleled.

This changing dynamic is already present with Citron Research, tweeting as of January 29, 2021 that they would: "discontinue short-selling research after 20 years of recommendations" and instead focus on delivering "long side multibagger opportunities for individual investors". In addition, Citigroup's Calvin Vinitwatanakhun has noticed that Credit Default Swaps (CDS), a financial instrument

that pays out in the event of a company's default (and unavailable to the retail investor to trade), has tied its performance to the most shorted companies' stock that is outperforming its peers in the broader market.

The higher performance of a company's share price leads to a decrease in the price of CDS as the likelihood of a company default is low. In other words, if institutional investors are bearish on the performance of a company, they could theoretically be short CDS and not worry about drawing attention to retail investors. Retail investors who could inadvertently drive up the share price of an otherwise underperforming company thus causing CDS prices to drop, as seen with \$GME and American Airlines stock below.



CITIGROUP'S CALVIN VINITWATANAKHUN POINTS OUT A PATTERN BETWEEN RECENT OUTPERFORMING STOCKS AND PERFORMANCE OF CDS. EXTRACTED FROM BLOOMBERG NEWSLETTER.

### Review

In summary, the recent trading activity of GameStop and other companies in January have proven to be short-lived, but an important learning lesson for Wall Street's institutional titans and retail investors both. Retail investors, and the general public have begun to realise that they have the ability to move markets en masse, and that the financial markets are not just limited to investment professionals with a technical and fundamental understanding of its workings. Retail investors have now flexed their heavy purchasing power and influence to affect the prices of various securities, and Wall Street has taken notice.

Thus, Wall Street and its institutional counterparts have learned that the traditional fundamental valuation strategies employed in equity, and other markets should not be the only strategies to take into account when making investment decisions; the speculative nature of retail investors, their strategies and camaraderie in investing into a security are important indicators in where its share price may be headed to in the near future.



The actions of brokerage platforms on restricting trading activity for these actively traded securities, GameStop and the like have also been noticed by both retail investors and government alike. Whether

result of a lack of liquidity for these platforms is still up for debate.

Hence, it is clear that many retail investors have fallen victim to extreme losses, especially for those trading on margin. Thus, in an attempt to "protect" these investors, it would be unsurprising to see regulatory changes, or even new firms competing in the brokerage platform space in the near future. What would this mean for institutional and retail traders alike?

It is hard to say. However, we see a shift in market mechanics, behaviour and strategy employed in the near future by both the retail and institutional investor and express excitement for what comes next.

### Legal Disclaimer

The content, opinions, estimates, and projections contained in this report are those of SFU Global Markets Group (known as "Global Markets Group" or "GMG") and its Executives, analysts, and affiliates and are subject to change without notice. The content, opinions, estimates, and projections on this report may not have been updated directly by SFU Global Markets Group and its executives, analysts, and affiliates and may also have been altered or without your or our knowledge. SFU Global Markets Group and its Executives, analysts, and affiliates, without exception, do not accept any liability for factual, typographical, and grammatical errors, omissions, or content in this report. SFU Global Markets Group and its Executives, analysts, and affiliates do not accept any liability for damages arising from the use of or reliance on any of the content, opinions, estimates, and projections on this report. SFU Global Markets Group and its Executives, analysts, and affiliates endeavor to ensure that the content, opinions, estimates, and projections have been compiled or derived from sources that we believe are reliable and contain information and opinions that are accurate and complete. Information may be available to SFU Global Markets Group and its Executives, analysts, and affiliates that is not reflected in this report. The information in this report is not intended to be used as the primary basis of investment decisions, and because of individual client objectives, should not be construed as advice designed to meet the particular investment needs of any investor. This report is for information purposes only and is not an offer to sell or the solicitation of an offer to buy any security. SFU Global Markets Group and its Executives, analysts, and affiliates may have a personal long or short position in any of the securities discussed herein, related securities or in options, futures or other derivative instruments based thereon. The reader should assume that SFU Global Markets Group and its Executives, analysts, and affiliates may have a conflict of interest and should not rely solely on this report in evaluating whether or not to buy or sell securities of issuers discussed herein. The reader, by the viewing of and use of the content, opinions, estimates, and projections contained in this report is assumed by SFU Global Markets Group and its Executives, analysts, and affiliates to have fully read, understood, and unconditionally agreed to all the terms and conditions set forth in this legal disclaimer.