



Degree Program in Economics and Business

Course of Financial Markets

The GameStop Squeeze Social Media's Rise in Modern Markets

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Introduction

In recent years, financial markets have witnessed unprecedented events that have challenged traditional market dynamics and regulatory frameworks. One such remarkable episode was the GameStop short squeeze of early 2021, which not only disrupted conventional trading patterns but also highlighted the growing influence of retail investors in modern financial markets. This thesis examines this groundbreaking event as a case study to understand the evolving nature of market dynamics, particularly how social media platforms and online communities have reshaped investor behavior and market outcomes.

The GameStop phenomenon represents a pivotal moment in financial history where retail investors, coordinating through online platforms like Reddit's r/WallStreetBets, successfully challenged institutional investors who had heavily shorted the stock. As Jiang, Habib, and Hasan (2020) explain in their comprehensive review of short selling literature, short sellers play a critical role in price discovery and revealing mispricing in markets. However, the GameStop case demonstrated that when retail investors collectively identify and act upon perceived vulnerabilities in short positions, they can dramatically alter market outcomes. This raises important questions about the stability and efficiency of financial markets in an era of democratized investing and social media influence.

The mechanics of a short squeeze, as detailed by Schultz (2023), typically occur when short sellers are forced to close their positions prematurely due to rising prices or recalled shares. In the case of GameStop, the conditions were particularly ripe for such an event – with over 138% of available shares sold short, creating what some called a "naked shorting" situation. This extreme level of short interest set the stage for what would become one of the most dramatic short squeezes in modern financial history, demonstrating how market and lender squeezes, though rare (occurring in less than 1% of stock-day observations according to Allen et al., 2023), can have outsized impacts on market stability and investor behavior.

The role of social media in facilitating this event cannot be overstated. As Kim, Lee, and Kauffman (2023) found in their study of the GameStop squeeze, platforms like Reddit fostered a sense of "social informedness" among retail investors, enabling coordinated action that significantly impacted trading volumes and price movements. This phenomenon was particularly strong during the short squeeze period, with statistical analysis showing that Reddit posts had a stronger

correlation with GameStop's trading volume during the squeeze compared to before or after the event. This finding raises important questions about how information flows through social networks and influences market behavior in ways that traditional financial theories may not fully account for.

The COVID-19 pandemic further amplified these dynamics by providing retail investors with both time and resources to engage more actively in markets. As Talwar et al. (2020) demonstrated in their research, interest in financial news and discussions was the primary driver of retail investor trading activity during the crisis, followed by careful planning and emergency saving motivations. This increased engagement, combined with the accessibility of trading platforms like Robinhood, created a perfect storm that enabled the GameStop short squeeze to unfold as it did.

The impact of this event extended far beyond GameStop itself. Hedge funds like Melvin Capital suffered massive losses, requiring a \$2.75 billion bailout from Citadel Securities and Point72 (Chung, 2021). The dramatic price movements – with GameStop's stock surging from \$4.31 on January 4th to \$81.25 by January 29th, a 1784% increase (Statista, 2024) – captured global attention and raised serious questions about market efficiency, regulatory oversight, and the power dynamics between retail and institutional investors.

Building on these observations, Hilliard and Hilliard (2022) provide a detailed analysis of the GameStop short squeeze using put-call parity (PCP) to investigate the efficiency of the market during this turbulent period. Their study reveals that while the market appeared chaotic, it largely adhered to no-arbitrage principles when accounting for market frictions such as borrowing fees, stock availability, and failures to deliver. The authors define three distinct periods: pre-squeeze (January 4 to January 21), squeeze (January 22 to February 10), and post-squeeze (February 11 to February 26), and find that violations of put-call parity were most frequent during the squeeze period, particularly in long-maturity options. This suggests that while retail investors were driving the price surge, the market still functioned rationally, with arbitrage opportunities limited by the high costs of short selling and other frictions.

Hilliard and Hilliard (2022) also highlight the role of implied volatility during the squeeze. They find that implied volatility spiked significantly during the squeeze, particularly on days when trading restrictions were imposed, such as January 27 and 28, 2021. This increase in volatility reflects the heightened uncertainty and risk in the market during this period. Interestingly, the authors note that implied volatility began to rise several days before the trading restrictions were

implemented, suggesting that market participants anticipated the potential for extreme price movements. This finding underscores the importance of understanding how market frictions and investor behavior interact during periods of extreme volatility.

This thesis seeks to answer several key research questions that emerged from this extraordinary event: How do modern short squeezes differ from historical examples? What role did social media play in enabling retail investors to coordinate their actions? How have regulatory frameworks responded to these new market dynamics? And what lasting impact has the GameStop episode had on market structure and investor behavior?

Through a detailed analysis of the GameStop case study, this thesis contributes to our understanding of financial markets in the digital age. By examining the timeline of events, the key stakeholders involved, and the broader market implications, this thesis provides insights into how traditional financial theories and regulatory approaches may need to evolve to address the realities of modern market dynamics. The findings not only illuminate the mechanics of the GameStop short squeeze but also offer valuable lessons for retail investors, institutional players, and regulators as they navigate an increasingly complex and interconnected financial landscape.

The structure of this thesis follows a logical progression, beginning with an examination of the mechanics of short squeezes, followed by a detailed case study of the GameStop event, and concluding with an analysis of the market implications and lessons learned. By drawing on a diverse range of sources and perspectives, this thesis aims to provide a comprehensive understanding of one of the most significant financial events of the early 2020s, and its implications for the future of financial markets and investor behavior.

1. The Mechanics of a Short Squeeze

1.1 Overview of Short Selling

Short selling is a financial strategy employed by investors who anticipate a decline in the price of a specific stock. This process involves borrowing shares of a stock from a broker, selling those shares on the open market at the current price, and later repurchasing them—ideally at a lower price—to return to the lender. The profit for the short seller lies in the difference between the higher selling price and the lower repurchase price. However, short selling carries significant risks, as the stock price could rise instead of falling, leading to potentially unlimited losses.

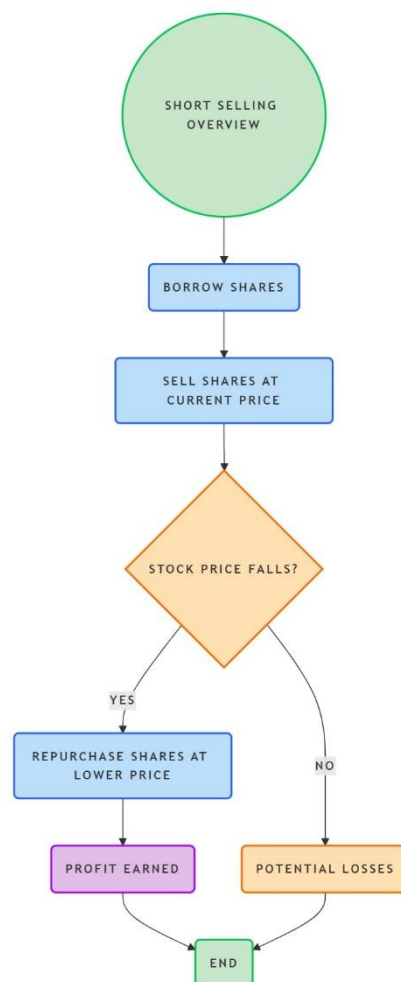


Figure 1 How Short Selling Word

The study by Fox et al. (2009) highlights the contentious nature of short selling, noting that while politicians and CEOs often criticize it for allegedly manipulating share prices below their fundamental values, finance theorists emphasize its importance in enhancing price accuracy by quickly integrating new information into stock prices. The authors explain that short selling accounts for a significant portion of market activity, representing 31% of all sales on NASDAQ and

24% on the NYSE, which demonstrates its potential to influence market prices significantly (Fox et al., 2009, p. 646). This underscores the critical role short sellers play in providing liquidity and enabling investors to hedge against market risks.

Furthermore, Fox et al. (2009) argue that short selling encourages the collection and analysis of new information by increasing the expected returns from such efforts. Without short selling, investors who uncover negative information about a company's future cash flows would be limited in their ability to profit unless they already own shares. The availability of short selling allows any investor to act on their analysis, thus increasing the accuracy of stock prices by ensuring that both positive and negative information is reflected in the market (Fox et al., 2009, p. 648). This is particularly evident in the reactions of hedge funds during the 2008 financial crisis, who voiced dissatisfaction when short selling restrictions limited their ability to profit from their analyses (Fox et al., 2009, p. 649).

The study also explores how short selling aids in reflecting disparate information across market participants. Fox et al. (2009) describe two models: the rational-investor model, which posits that prices, even without short selling, would be discounted to account for missing pessimistic views, and the noise-trader model, which suggests that without short selling, irrationally optimistic investors could cause prolonged price inflation (Fox et al., 2009, pp. 650-651). By mitigating such bubbles, short selling helps maintain price accuracy, making it a vital mechanism in financial markets.

Additionally, the paper discusses the socially harmful effects of short selling, such as price manipulation, where short sellers deliberately push down prices to profit, and the potential for spreading false news to affect prices temporarily. However, Fox et al. (2009) emphasize that these harmful practices, while possible, are often constrained by market dynamics and regulations, making large-scale manipulations challenging (Fox et al., 2009, pp. 652-657). They also highlight the significant role of short sellers during financial crises, where rapid share price declines can erode the capital base of financial firms, leading to further financial instability (Fox et al., 2009, p. 655).

By integrating these perspectives, Fox et al. (2009) provide a nuanced view of short selling, presenting it as a double-edged sword that enhances market efficiency through better price discovery while also posing risks of market manipulation and volatility under certain conditions.

The role of short sellers in financial markets has been extensively studied in academic literature. According to Jiang, Habib, and Hasan (2020)¹, short sellers are critical intermediaries of information in financial markets. They often use both public and private information to assess the potential overvaluation of a stock. By leveraging their analysis of financial statements and market data, short sellers play an important role in price discovery, helping to reveal mispricing in the market. This activity, however, is not without controversy, as it can create downward pressure on stock prices and raise concerns about market manipulation.

One of the central discussions in short-selling research revolves around the influence of short sellers on corporate decisions and financial reporting. Known as the "spillover effect," this refers to how the actions of short sellers can affect managerial decision-making and firms' reporting practices. By signaling potential issues with a company's financial health, short sellers can prompt firms to improve transparency or adjust their strategies. This highlights their dual role in markets—not only as profit-seekers but also as agents that influence broader economic decisions (Jiang et al., 2020).

Research¹ also highlights the technical challenges associated with studying short selling, including self-selection bias and reverse causality. For instance, it is difficult to determine whether short sellers target stocks that are already prone to price declines or whether their actions directly cause those declines. To address these challenges, recent studies have used regulatory changes, such as the US Regulation SHO and short-selling regimes in China and Hong Kong, as natural experiments. These frameworks enable researchers to draw clearer causal inferences about the effects of short selling on markets.

Relating this to the broader context of the thesis, short selling is a critical precursor to understanding the dynamics of a short squeeze. In a typical short squeeze scenario, as seen in the GameStop (GME) case later, short sellers face significant challenges when the stock price unexpectedly rises instead of falling. This forces them to repurchase shares at elevated prices, often creating a feedback loop that further inflates the stock price. Understanding the mechanics of short selling is essential for analyzing the GME case, as it sets the foundation for the extraordinary events that unfolded during this modern short squeeze.

1.2 Conditions Leading to a Short Squeeze

A short squeeze is a market phenomenon that arises when short sellers are forced to close their positions prematurely due to an inability to maintain their borrowed shares². This typically happens

when lenders recall their shares, and short sellers are unable to find an alternative source to borrow from. In such cases, they must repurchase the stock at prevailing market prices, which can trigger a significant upward pressure on the stock's price. While the probability of a short squeeze is generally low for most stocks, it is notably higher for "hard-to-borrow" stocks, those with limited availability for lending in the market.

The difficulty in borrowing shares is a key factor in the occurrence of short squeezes. According to Schultz (2023)², stocks that are hard to borrow often exhibit unique characteristics that make them prone to squeezes. These stocks tend to have high trading costs associated with short selling, which can significantly impact the returns for short sellers. In addition, short sellers targeting hard-to-borrow stocks frequently miss out on abnormal returns, as they are forced to close their positions early due to borrowing constraints. This underscores the challenges and risks that short sellers face when engaging in these trades.

The relationship between borrowing constraints and stock prices provides further insight into the conditions leading to a short squeeze. As Miller (1977)² explains, when short-selling constraints prevent short sellers from participating in the market, the stock price reflects only the optimistic views of investors. This can lead to an overvaluation of the stock and create the potential for future underperformance. Similarly, Duffie, Gârleanu, and Pedersen (2002)² argue that the price of a stock not only incorporates its intrinsic value but also factors in the expected income from loaning out the shares. In this context, the price can exceed even the most optimistic assessment of the stock's true value, making it vulnerable to correction through short selling.

Informed short sellers typically short a stock until the benefits of additional shorting are outweighed by the costs. For hard-to-borrow stocks, the costs of shorting are higher, which causes short sellers to limit their activities even when the stock remains significantly overpriced. This imbalance creates conditions where a short squeeze can occur, especially if a sudden spike in demand for the stock coincides with short sellers scrambling to close their positions.

One of the primary reasons short sellers face increasing risks is the unpredictability of borrowing costs, which can fluctuate based on supply and demand for the stock. As Demerski (2022) explains, the cost of borrowing shares can rise sharply when demand for short selling increases or when the available float becomes restricted. This makes shorting expensive, sometimes to the point where maintaining a short position is no longer viable. In addition to higher costs, lenders may recall their

shares at any time, forcing short sellers to buy back their positions under unfavorable market conditions.

The problem is further exacerbated when a stock has an unusually high short interest, meaning a significant percentage of the float is already tied up in short positions. As noted by Mitchell (2021), when short interest exceeds a critical threshold, it increases the likelihood of a squeeze, as the large number of short sellers attempting to exit simultaneously can drive prices even higher. Demerski (2022) expands on this by showing that short squeezes tend to be more violent when short interest is high relative to the float, leading to extreme volatility.

Market sentiment also plays a crucial role in the conditions leading up to a short squeeze. When a stock is heavily shorted, it can attract the attention of retail traders and institutional investors who recognize the potential for a squeeze. According to Greifeld and Wang (2021), stocks with high short interest often become the focus of speculative trading, as market participants look to capitalize on the forced buying pressure. This was particularly evident in the case of GameStop, where traders intentionally targeted the stock due to its exceptionally high short interest, leading to a historic short squeeze.

Moreover, the interaction between short selling constraints and trading volume can accelerate the process. As Demerski (2022) highlights, short squeezes tend to occur in stocks with lower floats because they have a limited number of shares available for trading. When volume spikes and there are fewer shares to absorb the demand, prices can escalate rapidly, trapping short sellers who are unable to close their positions without incurring significant losses.

The role of momentum in short squeezes cannot be overlooked. As a stock begins to rise, short sellers who initially believed in a price decline may hesitate to exit their positions, expecting a reversion to lower prices. However, when a stock continues to climb, a psychological shift occurs, leading to panic buying among short sellers who scramble to limit their losses. Demerski (2022) notes that this cycle of forced buying can sustain a squeeze for multiple trading sessions, further amplifying price increases.

In essence, the conditions leading to a short squeeze are shaped by a complex interplay of borrowing costs, short interest, market sentiment, liquidity constraints, and momentum. When these factors align, short sellers find themselves in an increasingly precarious situation, with limited

options for mitigating their exposure. The resulting chain reaction can lead to dramatic price movements, as seen in numerous historical examples.

1.3 Role of Retail and Institutional Investors

The dynamics of a short squeeze often hinge on the distinct roles played by retail and institutional investors. These two groups interact differently in financial markets, yet their actions can collectively create conditions ripe for extreme volatility and price movements. Retail investors, typically individual participants with smaller capital bases, have gained increasing prominence in recent years due to the accessibility of online trading platforms and the rise of social media as a means of communication and coordination. Institutional investors, on the other hand, represent large entities such as hedge funds, mutual funds, and pension funds, which possess significant resources and wield substantial influence in the market.

Institutional investors often engage in short selling as part of their broader investment strategies, driven by detailed financial analyses and market forecasts. Their actions can influence stock prices significantly, particularly when they involve large volumes of borrowed shares. However, their reliance on traditional financial indicators and professional judgment sometimes overlooks emerging trends or alternative perspectives. For example, in the context of heavily shorted stocks, institutional investors may misjudge the sentiment or behavior of retail investors, leading to unexpected outcomes such as a short squeeze.

Retail investors play a contrasting but increasingly pivotal role in shaping market dynamics. In recent years, platforms like Reddit, Twitter, and Discord have enabled retail investors to share information, ideas, and strategies in real time. This democratization of market participation has shifted the balance of power, allowing smaller investors to collectively influence stock prices. Their decisions are often driven by a mix of personal beliefs, speculative interests, and a sense of community, rather than strictly adhering to financial fundamentals. Retail investors may also exploit perceived weaknesses in institutional strategies, such as high levels of short interest in a stock, to coordinate buying efforts and drive-up prices, effectively triggering a short squeeze.



Figure 2 Drivers of Retail Investor Trading Activity During Crises – Talwar, M., Talwar, S., Kaur, P., Tripathy, N., & Dhir, A. (2020)

The COVID-19 pandemic further amplified the role of retail investors by providing them with both the time and resources to engage actively in the market. With many individuals confined to their homes and turning to online platforms for social interaction, retail investors discovered new ways to organize and act collectively. This surge in participation highlighted the power of grassroots movements in financial markets, challenging the dominance of institutional players and showcasing the potential for dramatic market disruptions.

Figure 2 shows what drives everyday investors (like people who trade stocks from home) to buy or sell stocks during big crises, like the COVID-19 pandemic. The most important factor is interest in financial news and discussions—people who pay attention to money-related topics and talk about them with others tend to trade stocks more actively. This makes sense because staying informed helps them spot opportunities, like buying stocks when prices drop suddenly.

The next two big factors are planning carefully and saving for emergencies. Investors who think ahead or want to save money for the future also trade more during tough times. While planning is usually smart, doing too much of it can sometimes lead to rushed decisions, like buying or selling stocks too quickly.

Finally, feeling financially secure (like having enough savings for retirement) plays a smaller but still noticeable role. On the other hand, being optimistic or anxious about money barely affects trading behavior. This tells us that everyday investors aren't just acting on emotions or blind hope. Instead, they're making choices based on what they learn, how they plan, and their desire to protect their savings.

Why this matters for short squeezes: When everyday investors team up (like on social media) to buy stocks that big investors bet against, they can cause prices to shoot up suddenly. This chart shows that this teamwork isn't random, it's fueled by people paying attention to news, planning ahead, and wanting to save wisely. Big investors sometimes miss this, which is why short squeezes can catch them off guard.

Despite their contrasting approaches, retail and institutional investors are interconnected in the mechanisms of a short squeeze. Institutional investors may create the initial conditions through excessive short selling, while retail investors can exploit these vulnerabilities by initiating coordinated buying efforts. This interplay underscores the evolving nature of market dynamics, where traditional hierarchies are increasingly influenced by technological advancements and shifts in investor behavior.

As financial markets continue to adapt to these changes, the role of retail investors in shaping outcomes once dominated by institutional players is likely to grow. Understanding this evolving relationship is crucial for regulators, market participants, and academics alike, as it offers insights into the complexities of modern market behavior and the risks and opportunities it presents.

1.4 Historical Examples of Short Squeezes

Short squeezes, while rare, have periodically captured the attention of investors, regulators, and scholars due to their potential to disrupt market stability and significantly impact prices. Historical examples of such events provide insight into their characteristics, consequences, and the conditions under which they occur. These examples are typically categorized into two main types of short squeezes: market squeezes and lender squeezes.

Market squeezes are triggered by sharp price increases that compel short sellers to close their positions prematurely. These events can lead to pronounced price bubbles, impair price discovery, and often leave a lasting impact on market quality. Notable examples include the Volkswagen

(VW) short squeeze of 2008, where a scarcity of freely available shares caused VW's stock price to skyrocket, briefly making it the world's most valuable company by market capitalization.

Lender squeezes, on the other hand, occur when borrowed shares are recalled, forcing short sellers to terminate their positions. While these events are also impactful, they tend to have less severe consequences on market quality compared to market squeezes. Lender squeezes often result in stable or increasing short interest after the event, as opposed to the significant declines typically seen following market squeezes.

Empirical evidence⁵ suggests that short-squeeze events are relatively uncommon. According to Allen et al. (2023), market squeezes occur in approximately 0.39% of stock-day observations in the U.S. and 0.56% in Europe. Lender squeezes are slightly more frequent in the U.S. at 0.77% of stock-day observations, while they are less common in Europe, with only 0.16% of stock-day observations affected. Furthermore, there is minimal overlap between these two types of short squeezes, indicating that they are driven by different underlying dynamics and conditions.

While market squeezes are rare, they are more likely to occur under extreme conditions. For instance, stocks with extraordinarily high short interest, such as those in the 95th percentile of specific metrics, are particularly susceptible. These extreme events often attract significant regulatory and scholarly attention, as they can expose vulnerabilities in market mechanisms and highlight the influence of speculative trading.

Table 1 The number and proportion of stock-day observations with market squeezes and lender squeezes

Panel A - US	No Market Squeeze	Market Squeeze	Total
No Lender Squeeze	13,826,585 (98.83%)	55,178 (0.39%)	13,881,763 (99.22%)
Lender Squeeze	108,132 (0.77%)	422 (0.00%)	108,554 (0.78%)
Total	13,934,717 (99.60%)	55,600 (0.40%)	13,990,317 (100.00%)

Panel B - EU	No Market Squeeze	Market Squeeze	Total
No Lender Squeeze	4,769,289 (99.27%)	26,887 (0.56%)	4,796,176 (99.83%)
Lender Squeeze	7,878 (0.16%)	69 (0.00%)	7,947 (0.17%)
Total	4,777,167 (99.44%)	26,956 (0.56%)	4,804,123 (100.00%)

Source: Allen, F., Haas, M., Pirovano, M., & Tengulov, A. (2023)

Table 1 supports the argument that short squeezes are rare but follow clear patterns. In the U.S., market squeezes happen in just 0.39% of daily stock cases, and lender squeezes are slightly more common at 0.77%—both very low numbers. In Europe, market squeezes are also rare (0.56%), but lender squeezes almost never occur (0.16%). This shows that these events are uncommon and behave differently depending on the market.

Importantly, the numbers show there's almost no overlap between market and lender squeezes (0.00% in both regions). This backs up the claim that they're driven by separate triggers—like sharp price jumps vs. share recalls—and aren't just two sides of the same coin.

The stats also explain why cases like Volkswagen's 2008 squeeze stand out: market squeezes, though rare, have outsized effects when they hit. Even a tiny percentage (like 0.39% in the U.S.) can cause huge disruptions, especially in stocks with extreme short interest. This reinforces my call for regulators to focus on high-risk cases—because when these events do happen, they really matter.

Historical examples of short squeezes, such as those involving Volkswagen (2008), GameStop (2021), and Hertz (2020), demonstrate the potential for these events to disrupt financial markets. The VW squeeze, driven by a scarcity of shares, temporarily made it the world's most valuable company, while GameStop's surge—fueled by retail investor coordination—exposed vulnerabilities in heavily shorted “meme stocks.” Similarly, Hertz's rally during its bankruptcy proceedings highlighted how even distressed firms can become targets. These cases underscore the need for robust measures to identify and mitigate the risks associated with extreme short-selling activities. By analyzing these examples, researchers and regulators gain valuable insights into the complexities of market behavior and the interplay between different types of short squeezes.

2. Case Study: The GameStop Short Squeeze

2.1 Timeline of Events

The GameStop short squeeze stands as a defining moment in financial history, showcasing the power of retail investors and the volatility of shorted stocks. Below is a chronological timeline of the key events leading to and during the short squeeze:

GameStop (NYSE: GME), a brick-and-mortar retailer of video games and related products, became one of the most heavily shorted stocks on the market. Hedge funds bet against the company's future, with 138% of its available shares sold short, a controversial practice known as "naked shorting."

Keith Gill, a marketing and financial education specialist at MassMutual, began sharing his thoughts on GameStop via Reddit and YouTube (as RoaringKitty). Gill's analysis highlighted the deep, overlooked value in GameStop's fundamentals, despite the prevailing narrative that the company was heading toward bankruptcy. He famously expressed his confidence in the stock with the phrase, "I like the stock."

Hedge funds believed GameStop was a relic of the past due to the shift toward digital game downloads and streaming. Viewing it as a failing company, they heavily shorted its stock, anticipating further declines. By early January 2021, over 100% of GameStop's available shares were shorted, setting the stage for what would soon become the "MOASS" (Mother of All Short Squeezes).

Amid the COVID-19 pandemic, many individuals turned to online communities for connection and shared interests. Platforms like Reddit, particularly the r/WallStreetBets subreddit, became hubs for retail investors. Inspired by Keith Gill's analysis, retail investors began to rally around GameStop, seeing an opportunity to exploit the hedge funds' overexposed short positions.

A coordinated buying effort by retail investors drove GameStop's stock price upward, forcing hedge funds to cover their short positions to limit losses. This caused a feedback loop, where the rising stock price further squeezed short sellers, leading to a dramatic increase in GameStop's stock value.

Within weeks, GameStop's stock price surged over 500%, capturing the attention of mainstream media, regulators, and financial institutions. The event highlighted the growing influence of retail investors and raised questions about the ethics and risks of naked shorting practices by hedge funds.

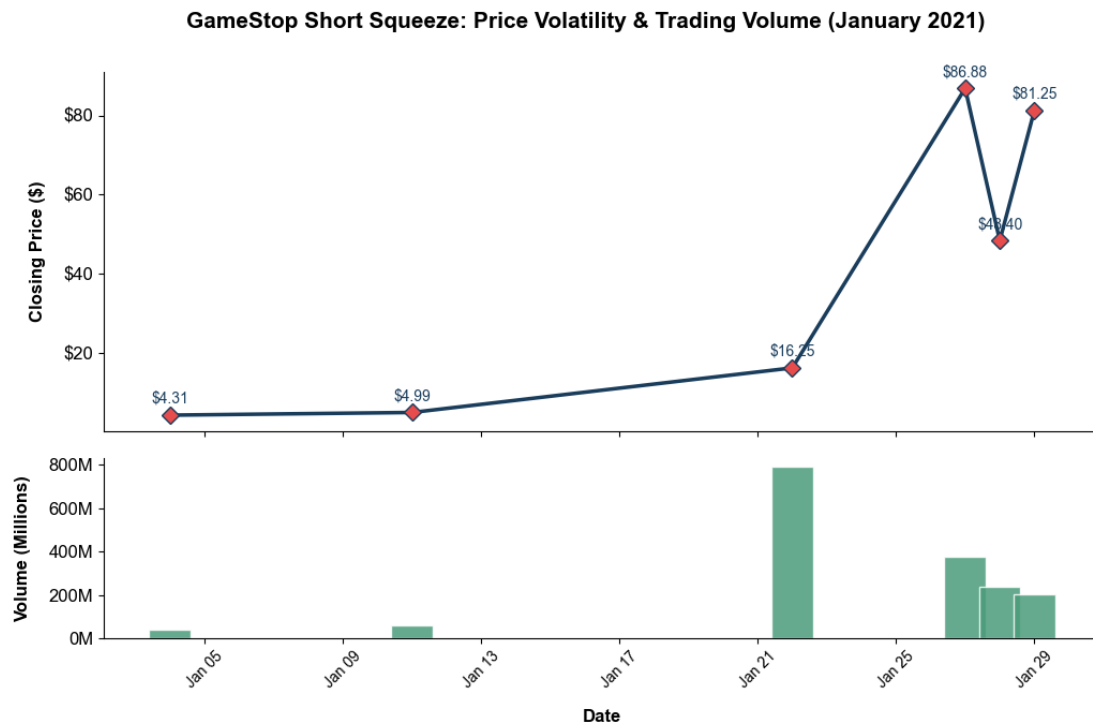


Figure 1: Exponential price growth (Jan 22-27: +435%) coincided with unprecedented trading volumes, demonstrating the short squeeze mechanics. Volume peaked at 788M shares (Jan 22) - 13x previous week's levels, while price swings exceeded 60% daily volatility during peak squeeze period.

Figure 3 - Statista. (2024, May 15)

As per Figure 3, The price shot up from 4.31 on January 4th to 4.31 to 81.25 by January 29th—a massive 1784% jump. At the same time, trading volume exploded. For example, on January 22nd, a record 788 million shares were traded, which was 13 times more than the week before. After that, the price swung wildly: it skyrocketed 435% by January 27th, crashed 44% the next day, then bounced back 68% on the 29th. Even during these swings, daily trading stayed super high, with over 200 million shares changing hands each day.

This chaos looks a lot like a classic short squeeze. Here's why: the giant volume spike on January 22nd likely forced some big investors to exit their bets. Then, the price hitting its peak around January 27th probably pushed others to panic and cover their risky short positions. The crazy moves after that show the market was still unstable as everyone tried to adjust.

With 138% of the stock's shares being shorted, this created a lopsided setup. Regular traders buying together could push prices way higher than normal, flipping the usual power balance between Wall Street and everyday investors.

2.2 Key Stakeholders and Their Roles

The GameStop short squeeze was driven by the interplay between several key stakeholders, including retail investors, online communities, hedge funds, and institutional players. Each group played a significant role in shaping the events that unfolded during this historic financial episode.

2.2.1 Retail Investors and WallStreetBets

Retail investors were the primary force behind the GameStop short squeeze, using online platforms to coordinate their buying strategies. A major catalyst for their involvement was Keith Gill, who shared his financial analysis and belief in the undervalued potential of GameStop. In 2019, Gill invested \$53,000 in GameStop call options and began sharing his findings with the r/WallStreetBets community (Pomparelli, 2024).

r/WallStreetBets, a subreddit on Reddit.com, became the hub for retail investors seeking to challenge traditional financial institutions. The platform was known for its humorous, meme-based culture but also served as a space for users to share their wins, losses, and strategies in the stock market (Mitra, 2021). Inspired by Gill's confidence in GameStop, many retail investors began purchasing the stock in significant quantities. Their collective action, facilitated by apps like Robinhood offering commission-free trading, drove GameStop's stock price from \$20 in early January 2021 to an intraday high of \$483 by January 28, 2021 (Pomparelli, 2024; Prentice & Schroeder, 2021).

Retail investors were motivated not only by the financial opportunity but also by a sense of rebellion against hedge funds that had heavily shorted GameStop. Many viewed their actions as a way to level the playing field and challenge the dominance of institutional investors. However, their coordination and use of platforms like Reddit and Robinhood drew regulatory scrutiny and led to legal and ethical debates.

2.2.2 Hedge Funds and Institutional Players

Hedge funds and institutional investors were central to the GameStop short squeeze, particularly as the primary short sellers of the stock. Hedge funds like Melvin Capital bet heavily against GameStop, believing the company's business model was obsolete in an era dominated by digital game downloads and streaming services (Pomparelli, 2024). Melvin Capital's short position made it vulnerable when the stock price began to rise, leading to massive financial losses. During the short

squeeze, Melvin Capital reportedly lost 53% of its assets under management, amounting to \$6.8 billion, and required a \$2.75 billion bailout from Citadel Securities and Point72 (Chung, 2021).

Institutional players like Citadel Securities also played a significant role. Citadel was both a market maker and one of the firms that bailed out Melvin Capital. The practice of Payment for Order Flow (PFOF), used by Robinhood to provide commission-free trading, tied Citadel to the events of the short squeeze. Critics argued that this arrangement created a conflict of interest, as Robinhood's decision to halt trading on January 28, 2021, appeared to benefit Citadel by easing the pressure on short sellers (Nelson v. Robinhood Financial LLC, 2021).

The actions of hedge funds and institutional players raised questions about the ethics of short selling and the transparency of market practices. The losses sustained by short sellers during the short squeeze highlighted the risks of overexposing positions and underestimating the influence of retail investors.

2.3 Media and Public Perception

The role of social media in shaping public perception and driving trading behavior during the GameStop (GME) short squeeze in early 2021 was significant. Kim et al. (2023)⁷ analyzed how platforms like Reddit and Twitter influenced individual investors, particularly through the r/WallStreetBets subreddit. Their study introduced the concept of social informedness, defined as investors' perception of being informed about a firm's market value through social media interactions. This collective awareness, driven by discussions on platforms like Reddit, led to coordinated trading strategies among individual investors, amplifying the GME short squeeze.

Reddit emerged as a critical platform for spreading social sentiment and meme culture, which played a unique role in the event. Unlike Twitter, which is often used for sharing real-time updates, Reddit's structure allowed users to engage in chaotic, interest-based discussions centered around GME. These discussions often included exaggerated or misleading claims rooted in meme culture, creating a sense of shared purpose among users. For example, r/WallStreetBets became a hub for posts encouraging investors to "hold the line" against institutional short sellers. Kim et al. (2023) found that the number of posts on Reddit was strongly correlated with GME's intraday trading volumes, especially during the short-squeeze period. Statistical results⁷ showed that the impact of Reddit posts during the squeeze ($\#Posts \times SS = 0.772***$) was stronger than before ($\#Posts \times BeforeSS = 0.629***$) or after ($\#Posts \times AfterSS = 0.523***$).

The study⁷ also highlighted differences in social informedness between Reddit and Twitter. While Reddit’s interest-based forums fostered intense, meme-driven discussions, Twitter’s broader focus limited its influence on GME-specific trading behavior. Kim et al. (2023) tested these differences through Hypotheses 3a and 3b, which asserted that the impact of posts and sentiment on trading volumes varied by platform. Using a Seemingly Unrelated Regression (SUR) analysis, they found that Reddit had a stronger influence on GME’s trading activity than Twitter. This was partly due to Reddit’s role in spreading anti-establishment sentiment, with users criticizing financial institutions while promoting collective action.

Additionally, Hypothesis 4 revealed that social media sentiment had a stronger impact on GME (the focal firm) compared to other firms like BBY (a “matching firm”). This was attributed to Reddit’s targeted discussions about GME, which amplified its visibility and trading volume. Figure 4, included in Kim et al. (2023), visually supports this finding. The figure compares the closing prices of GME and BBY stocks during the BeforeSS (before the short squeeze), SS (short-squeeze period), and AfterSS phases in 2020. It shows a sharp spike in GME’s stock price during the short squeeze, while BBY’s price remained relatively stable. This contrast underscores how Reddit-driven social informedness disproportionately influenced GME’s trading volume and price volatility compared to firms not targeted by coordinated retail investor activity.

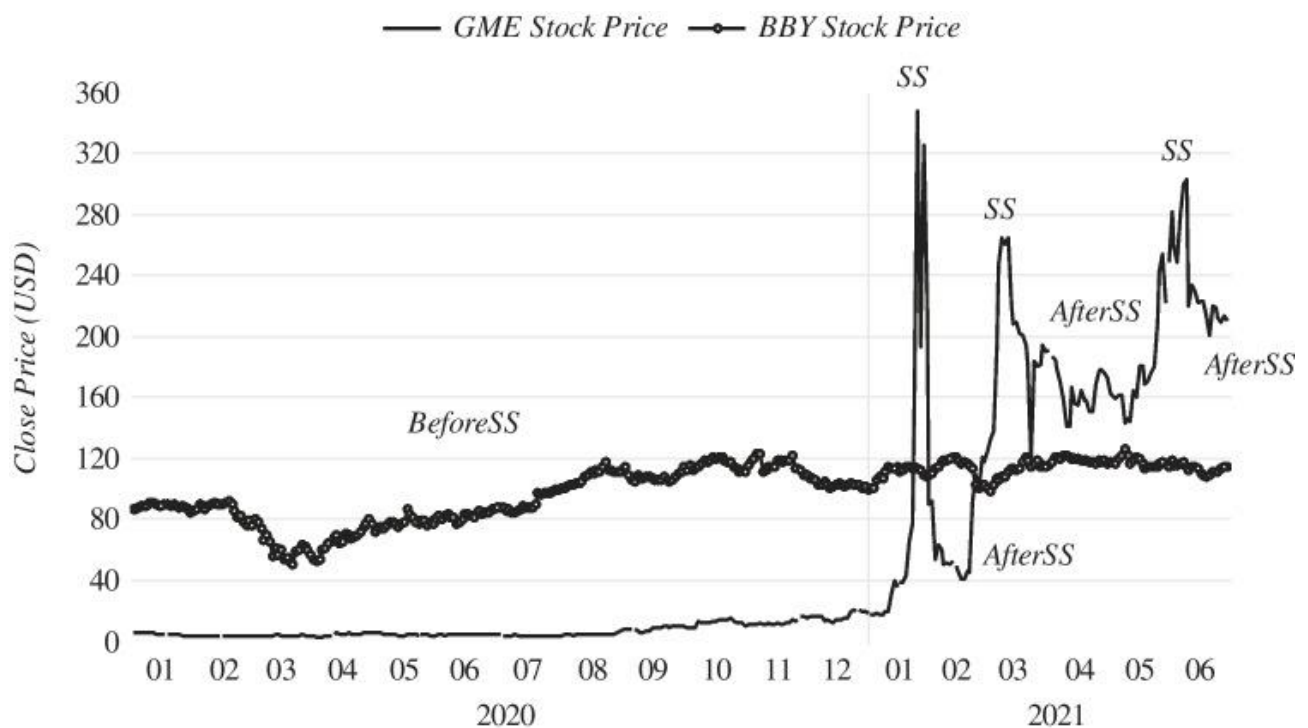


Figure 4 comparing the closing prices of GME and BBY before, during and after SS

The GME short squeeze demonstrated how social media platforms like Reddit can disrupt traditional market dynamics. The findings call for closer monitoring of social news platforms and further research into how online sentiment influences financial markets (Kim et al., 2023). The study underscores the need to address the risks of misinformation and herd behavior in an era where social media increasingly shapes investor decisions.

3. Market Implications of the GME Short Squeeze

3.1 Impact on Hedge Funds

The GameStop (GME) short squeeze had profound and far-reaching consequences for hedge funds, particularly those with significant short positions in the stock. The event not only resulted in substantial financial losses for several prominent hedge funds but also exposed systemic vulnerabilities in the financial markets, especially in the face of coordinated retail investor activity facilitated by social media platforms like Reddit's r/WallStreetBets.

Financial Losses and Bailouts

One of the most notable casualties of the GME short squeeze was Melvin Capital, a hedge fund that had heavily shorted GameStop. Melvin Capital's bet against GameStop was based on the belief that the company's business model was outdated and that its stock price would continue to decline. However, as retail investors on r/WallStreetBets began to buy GameStop shares in masses, the stock price surged dramatically, forcing Melvin Capital to cover its short positions at significantly higher prices. This led to catastrophic losses for the fund, amounting to 53% of its assets under management, or approximately 6.8 billion (Chung, 2021). At the peak of the short squeeze, Melvin Capital was losing over 1 billion per day, prompting a \$2.75 billion bailout from larger hedge funds, including Citadel Securities and Point72, to stabilize the situation (Chung, 2021).

The financial turmoil experienced by Melvin Capital was not an isolated incident. Other hedge funds with significant short positions in GameStop also faced substantial losses. According to Chen, Hwang, and Teo (2024), hedge funds with short positions in highly shorted stocks like GameStop experienced a significant decline in performance following the surge in retail investor activity. The authors found that a one-standard-deviation increase in social media activity (measured by posts on r/WallStreetBets) corresponded to a 0.43% decrease in hedge fund returns and a 0.64% reduction in seven-factor adjusted returns (Chen et al., 2024). These findings highlight the direct financial impact of retail investor coordination on hedge fund performance.

Broader Market Vulnerabilities

The GME short squeeze also exposed broader vulnerabilities in the financial system, particularly in the context of social media-driven market movements. Hedge funds, which traditionally rely on sophisticated models and institutional knowledge to make investment decisions, were caught off guard by the unprecedented coordination of retail investors. Chen et al. (2024) argue that the

disclosure of hedge fund short positions on platforms like r/WallStreetBets triggered a wave of retail investor activity, which in turn led to significant price increases for heavily shorted stocks. This phenomenon was particularly pronounced around the publication dates of short interest data, suggesting that retail investors were actively targeting hedge fund short positions (Chen et al., 2024).

The role of market makers like Citadel Securities further complicated the situation. As the primary market maker for Robinhood, Citadel Securities found itself at the center of the controversy, as it was simultaneously providing liquidity to retail investors while also bailing out hedge funds like Melvin Capital. This dual role raised questions about conflicts of interest and the fairness of market operations, leading to increased regulatory scrutiny (Pomparelli, 2024). The GME short squeeze thus highlighted the fragility of financial systems when unexpected events, such as coordinated retail investor activity, cause massive volatility.

Hedge Fund Responses and Market Efficiency

In the aftermath of the GME short squeeze, hedge funds were forced to reassess their strategies, particularly in relation to short selling. Chen et al. (2024) document a significant reduction in hedge fund short positions following the GameStop event. Specifically, they found that hedge funds reduced the dollar value of their publicly disclosed short positions in top shorted stocks by \$345.44 million, or 56.78%, in the four quarters following the first quarter of 2021 (Chen et al., 2024). This reduction in short selling activity suggests that hedge funds became more cautious in the face of heightened risks posed by retail investor coordination.

It is also argued¹³ that the reduction in hedge fund short selling has broader implications for market efficiency. By shorting less aggressively, hedge funds may be allowing overpriced stocks to remain overvalued for longer periods, leading to less efficient markets (Chen et al., 2024). This is supported by their finding that stocks with high short interest and high social media activity were more likely to announce negative earnings surprises, indicating that hedge funds' negative assessments were generally correct, but retail investor activity pushed prices above fundamental values (Chen et al., 2024).

The GME short squeeze marked a turning point in the relationship between hedge funds and retail investors. It demonstrated that retail investors, when coordinated through social media, could challenge the dominance of institutional investors and disrupt traditional market dynamics. As Chen

et al. (2024) note, the GameStop event was not a one-off occurrence but rather a sign of a broader shift in market behavior. Their survey of institutional investors conducted in April 2024 revealed that 43% of respondents believed the “meme stock phenomenon” was likely to continue or intensify in the coming years, with 18% acknowledging that they had made portfolio changes in direct response to information gleaned from online forums (Chen et al., 2024).

This shift has forced hedge funds to adapt their strategies, incorporating greater awareness of retail investor sentiment and social media activity into their decision-making processes. However, it has also raised concerns about the potential for market manipulation and the need for greater regulatory oversight to ensure fair and transparent markets.

3.2 Lessons for Retail Investors

The GameStop short squeeze provides critical lessons for retail investors, particularly young individuals who are more vulnerable to irrational decision-making. The factors influencing their actions include both internal and external elements, which shaped the phenomenon of the short squeeze. Below are the main takeaways from the research:

3.2.1 Understanding the Impact of Social Media

Social media plays a pivotal role in influencing the investment decisions of young retail investors. Platforms like Reddit, Instagram, and TikTok expose investors to an overwhelming amount of information, which can include both accurate and misleading financial advice. It is essential for retail investors to critically evaluate the content they consume online, especially when making financial decisions. Following trends or jumping into investments because of peer influence can lead to poor financial outcomes. Retail investors must prioritize thorough research and avoid decisions based solely on viral content.

3.2.2 Managing Emotions Like FOMO (Fear of Missing Out)

The fear of missing out (FoMO) is a powerful motivator for young investors. When young investors see their peers making profits, especially through social media, they may feel compelled to jump into the market without proper analysis. This emotional response can cloud judgment and result in purchasing overvalued assets, like GameStop, which led to significant losses for some during the

short squeeze. Learning how to manage emotions, particularly FoMO, can help investors make more rational decisions based on solid analysis rather than emotional impulses.

3.2.3 Developing a Personal Investment Strategy

A lack of experience in stock trading makes young investors more likely to follow the crowd rather than rely on their own strategy. Retail investors should work towards developing their own investment criteria based on research, risk tolerance, and long-term goals rather than relying on the sentiments of social media influencers or peers. Having a clear plan for risk management, asset diversification, and portfolio balance is crucial for avoiding impulsive, high-risk investments that can lead to significant losses.

3.2.4 The Importance of Financial Education

The research suggests that a lack of experience and knowledge contributes to poor investment decisions among young investors. Financial education is essential for building the skills needed to navigate the markets successfully. Young investors should invest time in learning about stock market fundamentals, investment strategies, and the broader economic environment. Educational resources from reputable sources, such as official websites or financial institutions, can help prevent uninformed decision-making and improve investor confidence.

3.2.5 Recognizing the Risks of Trading Platforms

Online trading platforms like Robinhood, which are designed to be user-friendly, can encourage frequent trading, especially among young, inexperienced investors. These platforms make it easier to trade, sometimes leading to impulsive decisions. Additionally, features like “Top Movers” can cause investors to focus on short-term price movements rather than long-term value, further driving speculative behaviors. Retail investors should be cautious of the ease of trading and take the time to assess the long-term potential of their investments before making decisions.

3.2.6 The Influence of Institutional Practices

Institutional investors' strategies, such as short selling, can significantly affect market dynamics. The GameStop short squeeze demonstrated how retail investors could exploit heavily shorted stocks to trigger a short squeeze. However, this kind of strategy is not without its risks. Retail investors

should be aware that these high-stakes market moves can lead to volatile price swings and that such volatility can result in unexpected losses. Understanding how institutional practices can affect stock prices and being cautious of speculative trading is key for long-term success.

3.2.7 Avoiding Herd Mentality

The herd mentality can result in speculative bubbles and irrational trading behavior, as seen in the case of the GameStop short squeeze. Herding mentality occurs when investors disregard their own information and independent analysis to follow the decisions of a larger group of investors (Dang and Lin, 2016). This behavior is often driven by informational asymmetry, where investors believe that the larger group has better or more information than they do, leading them to mimic the actions of others to mitigate risk (Chohan, 2023). In the case of GameStop, many young investors were motivated by the collective actions of a large group, rather than by sound financial analysis. The herding behavior was exacerbated by the rapid dissemination of information and sentiments through social media platforms like Reddit, where retail investors coordinated their actions to drive up the stock price (Maiz, 2021).

While group discussions can provide useful insights, retail investors should remain aware of the risks of blindly following the crowd. The GameStop episode highlighted how emotional drivers, such as anti-institution sentiments, can significantly influence herding behavior (Hott, 2009). Retail investors should focus on making independent, informed decisions rather than being swayed by the prevailing market mood or social movements. It is crucial to recognize that herding mentality can lead to severe market disruptions, as the collective actions of retail investors can inflate asset prices to unsustainable levels, creating bubbles that eventually burst (Hott, 2009).

To avoid falling into the trap of herd mentality, retail investors should critically evaluate the credibility of the information they receive and be cautious of emotional influences that can distort their judgment. As Hott's framework suggests, the initial positive signal that sparks herding often comes from a credible source, but it is essential to verify the information independently (Hott, 2009). Additionally, understanding the role of social moods and coordinated actions in driving herding behavior can help investors make more rational decisions and avoid the pitfalls of speculative trading.

3.3 Regulatory and Policy Responses

The GameStop short squeeze highlighted significant gaps in market regulation, prompting calls for reform to address systemic risks and ensure a fairer and more stable trading environment. The event revealed several flaws in the U.S. capital market structure, particularly regarding short-selling mechanisms, information asymmetry, and the potential for market manipulation.

One of the major regulatory challenges exposed by the GameStop saga was the lack of effective oversight in managing the interaction between retail investors and institutional players. The massive influx of retail investors into GameStop's stock, facilitated by platforms like Robinhood, created unprecedented market volatility. This disruption prompted concerns about the fairness of trading practices, as institutional investors, including hedge funds, were forced to respond to the actions of the retail investor community, ultimately leading to massive losses and bailouts.

The incident highlighted the need for more robust regulation around short-selling, particularly in the age of social media-driven trading. The lack of clear rules governing short squeezes and speculative trading has led to calls for reform to prevent price manipulation and ensure that stock prices reflect the true financial health of companies. The GameStop event showed that the existing regulatory framework was not designed to handle the extreme volatility caused by the mass participation of individual investors. As a result, regulators are now considering tightening controls on short-selling practices and enhancing oversight of online trading platforms, especially those that cater to retail investors.

Another key issue raised was the lack of transparency in the market pricing mechanism. The GameStop saga revealed how speculative trading, driven by retail investors seeking to exploit short sellers, can result in price fluctuations that are disconnected from the company's actual performance. This deviation from fundamentals can undermine market efficiency, causing both short-term instability and long-term harm to investors who may not fully understand the risks involved. Regulators are now exploring ways to improve information disclosure, ensuring that all investors, retail and institutional alike, have access to accurate and timely data to make informed decisions.

The role of social media platforms in the GameStop event also brought attention to the potential for market manipulation. Retail investors, empowered by platforms like Reddit and Twitter, were able to coordinate buying efforts, driving up the stock price. While this collective action may have

appeared as a victory for individual investors, it also raised concerns about the possibility of misinformation and manipulation on public forums. To address this, regulators are considering measures to monitor and prevent the spread of misleading or false information that could manipulate stock prices. This includes identifying and defining manipulative behavior on social media platforms to strike a balance between free speech and market integrity.

In response to the GameStop episode, regulators and policymakers are now focused on strengthening the regulatory framework to address these issues. This includes examining the practices of market makers like Citadel and the role of brokerage firms such as Robinhood in the event, as well as the need for reforms in the securities market to prevent excessive volatility and ensure fairer market conditions for all participants (Zhang, 2024). The GameStop short squeeze has thus served as a wake-up call for regulators to rethink their approach to market oversight and create policies that better reflect the evolving dynamics of modern financial markets.

3.4 Broader Effects on Market Dynamics

The GameStop short squeeze had significant broader effects on market dynamics, notably in terms of how retail investors participate in the financial markets. One of the key impacts was the shift in how small investors view and engage with financial markets. The rise of platforms like Reddit and various trading apps made it easier than ever for retail investors to participate in stock trading. This increased accessibility, combined with the gamification of trading apps, lowered the barriers to entry for financial markets, attracting a new wave of investors who had previously been excluded from these spaces (Klein, 2021).

Another major effect was the impact on financial literacy. The GameStop saga, driven largely by users on Reddit's r/WallStreetBets, prompted many retail investors to self-educate about financial concepts like short sales and market speculation. As retail investors learned and discussed these terms in public forums, there was a noticeable increase in research related to these financial mechanisms. This self-education, driven by online communities, gave retail investors the ability to make more informed decisions about their investments, although there was still a degree of misinformation and bias present (Klein, 2021).

This surge in retail investor activity highlighted the growing power of social media and online communities in shaping market behavior. Platforms like Reddit became central to how information about stock movements spread, with users sharing stories of massive gains or losses, which fueled

the momentum of the short squeeze. This "David vs. Goliath" mentality, where small investors banded together to challenge institutional investors, also played a role in the frenzy, drawing even more participants into the market (Klein, 2021).

The GameStop event showed that social media can both disrupt markets and improve the financial literacy of small investors. As more people learned about financial tools and market mechanisms, the accessibility and influence of retail investors grew. However, there are concerns about the potential for market destabilization due to herding effects and the spread of misinformation, leading policymakers to consider how to address such phenomena in the future. The GameStop squeeze was not just a one-off event; it indicated a larger shift in the dynamics of financial markets, where social media plays a critical role in shaping investor behavior and market outcomes.

Conclusions

The GameStop short squeeze of 2021 represents a watershed moment in financial history that has fundamentally altered our understanding of market dynamics in the digital age. Through this detailed case study, several important insights have emerged about the nature of modern short squeezes, the power of retail investors when coordinated through social media, and the challenges facing market regulators and participants alike.

The mechanics of the GameStop short squeeze revealed how extreme short interest positions can create vulnerable market conditions. As documented in this research, the unprecedented level of short interest in GameStop, reaching 138% of available shares, created the perfect environment for a squeeze of historic proportions. This aligns with Schultz's (2023) findings that short squeezes are more likely to occur in "hard-to-borrow" stocks and when short interest reaches extreme levels. The rapid price acceleration from \$4.31 to over \$80 within weeks, accompanied by record-breaking trading volumes of up to 788 million shares in a single day (Statista, 2024), exemplifies how modern short squeezes can unfold with remarkable speed and intensity in today's interconnected markets.

The role of social media in facilitating this event cannot be overstated. As demonstrated through the analysis of Reddit's r/WallStreetBets community, social platforms have emerged as powerful coordination tools for retail investors. Kim, Lee, and Kauffman's (2023) concept of "social informedness" proved particularly relevant, as their statistical analysis showed that Reddit posts had a significantly stronger impact on GameStop's trading volume during the short squeeze (correlation coefficient of 0.772) compared to periods before (0.629) or after (0.523) the event. This finding confirms that social media now serves as a critical channel for information dissemination and investor coordination, fundamentally changing how market movements can develop and propagate.

The case study also highlighted the shifting power dynamics between retail and institutional investors. The substantial losses suffered by Melvin Capital, 53% of its assets under management, amounting to \$6.8 billion (Chung, 2021), demonstrated that coordinated retail investors can effectively challenge even well-established hedge funds. This shift has important implications for market stability and raises questions about whether traditional financial theories adequately account for the influence of social media-driven retail investment in modern markets.

For retail investors, particularly younger participants, the GameStop event offers critical lessons about the risks and rewards of coordinated trading strategies. As our analysis showed, factors such as FOMO (Fear of Missing Out), the gamification of trading platforms, and the powerful influence of peer sentiment on social media can lead to both spectacular gains and devastating losses. The research underscores the importance of financial literacy and critical evaluation of information sources, particularly when making investment decisions based on social media content.

From a regulatory perspective, the GameStop squeeze exposed significant gaps in the current framework governing short selling and market manipulation in the age of social media. The lack of clear rules around the interaction between retail investor coordination and traditional short selling practices has prompted calls for reform to prevent excessive market volatility while ensuring fair access for all participants. As this thesis has argued, regulators now face the complex task of balancing market efficiency with investor protection in an era where information spreads instantaneously and trading decisions can be influenced by viral content.

The broader effects on market dynamics have been profound. As Klein (2021) noted, the GameStop event accelerated the democratization of financial markets, bringing a new wave of retail participants into the investment sphere. This shift has been accompanied by increased self-education about financial concepts, with many investors learning about short selling and market mechanics through online communities. However, this development also raises concerns about the potential for market destabilization through herding effects and misinformation, challenges that will require thoughtful responses from market participants and regulators alike.

Looking forward, the GameStop short squeeze suggests several areas for future research and consideration. First, there is a need for more sophisticated models of market behavior that incorporate the influence of social media and retail investor coordination. Second, trading platforms and regulators should explore ways to promote financial literacy while mitigating the risks of excessive speculation driven by social media. Finally, institutional investors may need to reassess their risk management strategies to account for the growing power of retail investors in today's markets.

In conclusion, the GameStop short squeeze represents not just an isolated market anomaly, but rather a signal of structural changes in how financial markets function in the digital age. As Jiang, Habib, and Hasan (2020) noted in their comprehensive review of short selling literature, the

interaction between short sellers, market pricing mechanisms, and information flows is complex and evolving. The GameStop case study has demonstrated that when retail investors harness the power of social media to coordinate their actions, they can significantly impact market outcomes and challenge traditional power structures in finance. This new reality calls for adapted theories, regulatory approaches, and risk management strategies that reflect the democratized, socially-connected nature of modern financial markets.

References

1. Jiang, H., Habib, A., & Hasan, M. M. (2020). Short Selling: A review of the literature and implications for future research. *European Accounting Review*, 31(1), 1–31. <https://doi.org/10.1080/09638180.2020.1788406>
2. Schultz, P. (2023). Short Squeezes and Their Consequences. *Journal of Financial and Quantitative Analysis*, 59(1), 68–96. <https://doi.org/10.1017/s0022109022001533>
3. Pomparelli, T. (2024, June 30). *The GameStop Short Squeeze as a Case Study in Business Law Education*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4880888
4. Talwar, M., Talwar, S., Kaur, P., Tripathy, N., & Dhir, A. (2020). Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic? *Journal of Retailing and Consumer Services*, 58, 102341. <https://doi.org/10.1016/j.jretconser.2020.102341>
5. Allen, F., Haas, M., Pirovano, M., & Tengulov, A. (2023). How prevalent are short squeezes? Evidence from the US and Europe. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4526147>
6. Statista. (2024, May 15). *GameStop (GME) stock price daily 2020-2024*. <https://www.statista.com/statistics/1199882/gamestop-daily-stock-price/>
7. Kim, K., Lee, S. T., & Kauffman, R. J. (2023). Social informedness and investor sentiment in the GameStop short squeeze. *Electronic Markets*, 33(1). <https://doi.org/10.1007/s12525-023-00632-9>
8. Pomparelli, T. (2024, June 30). The GameStop short squeeze as a case study in business Law education. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4880888
9. Wu, S. (2022). Research on young investors' behaviors. *Advances in Economics, Business and Management Research/Advances in Economics, Business and Management Research*. <https://doi.org/10.2991/aebmr.k.220405.145>
10. Nedungadi, P. (2022). Herding mentality in the GameStop Short Squeeze: a case study. Research Archive of Rising Scholars. <https://research-archive.org/index.php/rars/preprint/download/1554/2221/1931>
11. Zhang, Y. (2024). GME's short squeez and market regulation. *International Business & Economics Studies*, 6(4), p102. <https://doi.org/10.22158/ibes.v6n4p102>
12. Klein, T. (2021). A note on GameStop, short squeezes, and autodidactic herding: An evolution in financial literacy? *Finance Research Letters*, 46, 102229. <https://doi.org/10.1016/j.frl.2021.102229>
13. Chen, J., Hwang, B.-H., & Teo, M. (2024). *Did the Game Stop for Hedge Funds?* [University of Illinois at Chicago]. <https://www.bhwang.com/pdf/game-stop.pdf>

14. Merritt B. Fox, Lawrence R. Glosten & Paul C. Tetlock, Short Selling and the News: A Preliminary Report on Empirical Study, 54 N.Y. L. SCH. L. REV. 645 (2009). Available at: https://scholarship.law.columbia.edu/faculty_scholarship/3352
15. Demerski, G. (n.d.). *Anatomy of the short squeeze: Using technical and statistical analysis to forecast price volatility*. Bryant Digital Repository. https://digitalcommons.bryant.edu/honors_finance/55/
16. Hilliard, J. E., & Hilliard, J. (2023). The GameStop short squeeze: Put–call parity and the effect of frictions before, during and after the squeeze. *Journal of Futures Markets*, 43(5), 635–661. <https://doi.org/10.1002/fut.22405>