Gaming the Stop on GameStop

Kathryn M. Kaminski, Ph.D., CAIA®
Chief Research Strategist,
Portfolio Manager

H. Gray Karpel
Senior Marketing Associate

February 2021

In January 2021, something strange happened on Wall Street. Shares of a small bricks-and-mortar retailer, GameStop (GME), exploded in price—increasing over 1700%! Figure 1 plots the miraculous move.

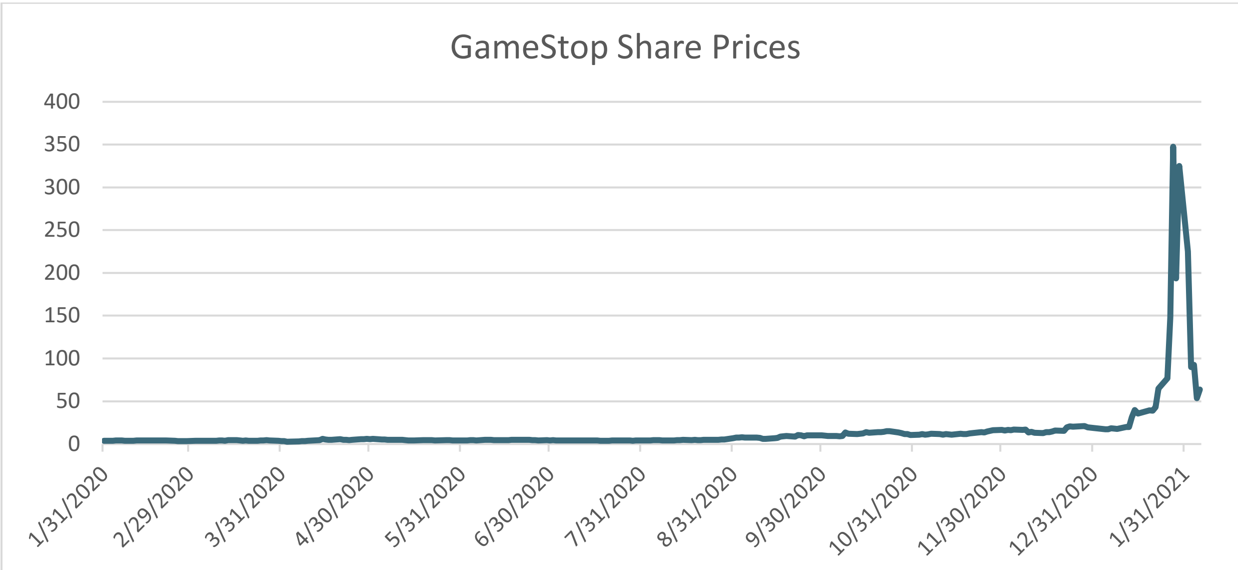

Figure 1: Share prices for GameStop stock from January 31, 2020 through February 5, 2021. Source: Bloomberg.

As a result of this dramatic event, a number of market participants faced some significant issues. It turns out that several hedge funds and other investors had been racing to short-sell the stock. GameStop has struggled in recent years, and its profits have been hit hard by the pandemic. Perhaps the short-sellers all thought that the pandemic would finally put a "stop on GameStop". When prices increased instead, these investors were hit hard.

The recent and wild episode with GameStop's shares provides a useful reminder that markets do not always behave in a way that's consistent with traditional economic theories. This can be because investors are behaving irrationally, due to fear or greed, or because an asymmetry in information may lead to diverging views. For a savvy, practical investor, this represents an important reminder: investor behavior is a powerful force in markets that needs to be taken into account when managing risk or pursuing investment opportunities.

About Short-Selling

"Wait, you can sell something you don't actually own?"

Let's remind ourselves that short selling is when you sell something you don't have, an invention of financial markets that has big risks with unlimited downside. A short seller is essentially betting that the price of a certain stock will decrease, instead of increase. These investors "borrow" shares of a stock or other asset, often from a broker, with a promise to return the shares on a future date and generally with a fee involved for the transaction. They then sell those shares at the current market price. If the price has decreased when the shares must be returned to the broker, the investor gains the difference; if the price has increased, the investor loses an amount equal to the difference. This is a risky strategy, because (as GameStop demonstrated) there is no guarantee that a price will decrease, and short-sellers are on the hook for whatever the difference is when the transaction is closed out – even if it's 1700%!

As an example, consider the case where you wanted to borrow my car. I'll need it back on a specific day in the future, of course, and you'll have to return it to me in the same condition. If you were willing to pay me 20% of the car's value to borrow it for that time, I'd be delighted. In early January, the cost to borrow GameStop shares peaked at over 20% annualized. Investors borrowed shares, which at the time were priced around $3.50/share, promising to return them at a later date. In simple terms, GameStop was a hot commodity to short. Figure 2 plots the short interest in GameStop, or the amount of shares being shorted since the fall. These short-sellers expected the price to continue to decrease. Instead, it increased to a high of over $300 per share. The short-sellers got themselves caught in what is called a short squeeze—a self-explanatory name.

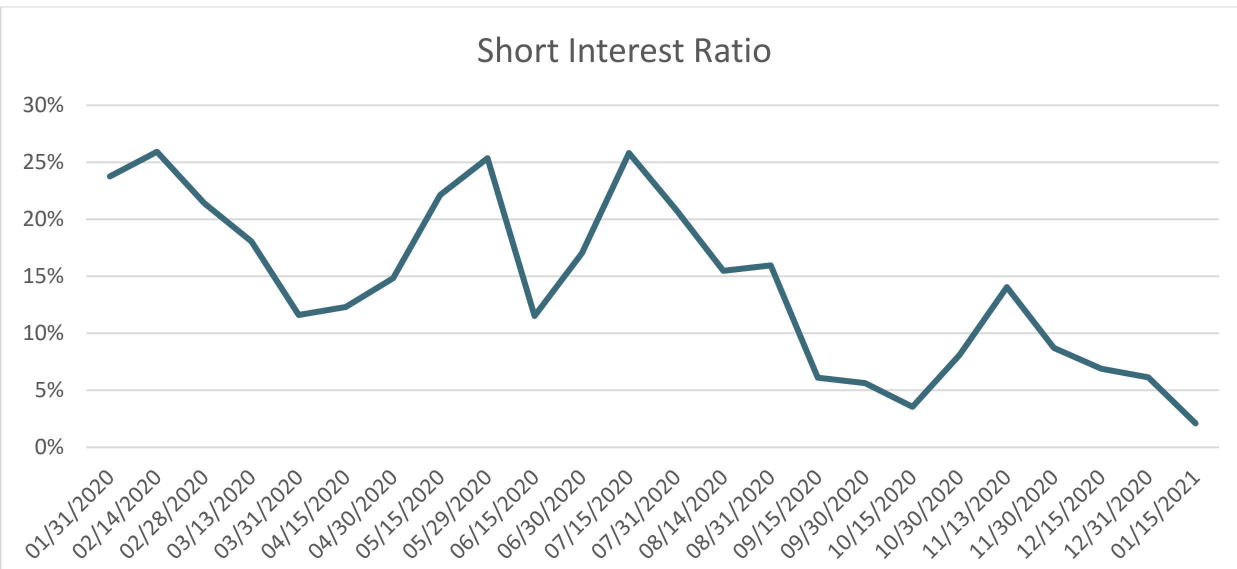

Figure 2: The chart shows the number of GameStop shares being shorted relative to the stock's average daily trading volume from January 31, 2020 through January 15, 2021 (short interest data produced bi-monthly). This chart shows the amount of shares being shorted for GameStop. Source: Bloomberg.

How Did This Happen?

Retail investors who are part of an online community on social media website reddit.com called r/WallStreetBets were interested in GameStop. These individuals give each other stock tips and trade their own portfolios through low-cost brokerage apps. Over the last few months, possibly inspired by Chewy.com founder and GameStop board member Ryan Cohen, these investors began to buy GameStop shares. Part of their motivation was a view that hedge funds had been short selling GameStop, and its shares were possibly undervalued. As positive enthusiasm ensued, the stock price went up, and the day trading frenzy continued. During the first month of 2021, the share price had gone up over 100%. From a low of around $3/share in March 2020 at the beginning of the COVID-19 crisis, GameStop surged to a value over $300 a share in January. The players on the short side felt the squeeze as prices continued to rally. Some estimates point to losses of $5 billion. One dedicated short seller, Melvin Capital recently received a much-needed influx of cash estimated at $2.75B from its investors.

Putting GameStop into Perspective

These types of events are often called bubbles or moments of irrational exuberance. Perhaps the most famous bubble, Tulip mania in the 1600s, took the price of tulip bulb contracts to more than the cost of a house. More recently, of course, the dot-com bubble led to a significant drop in the stock market. And in January, a seemingly-unimportant video game store rocked Wall Street with similar behavior. What happened to GameStop (GME) reminds us why markets are not always efficient.

The classic Efficient Markets Hypothesis (EMH) is a theory of financial markets that states that all relevant information is incorporated into price. It should be impossible to "time stocks" or to use technical analysis to follow trends. It also suggests that investors—and the market as a whole—are rational.

Why then did markets behave so irrationally? The EMH doesn't provide any answers.

At AlphaSimplex, we often say the EMH isn't broken, it's just incomplete. Instead, we consider the Adaptive Markets Hypothesis (AMH). The AMH is an alternative approach to understanding market dynamics. According to the AMH, markets behave like an ecosystem. Success or failure is governed by the principles of evolutionary biology. For example, in evolutionary biology there exists a phenomenon called punctured equilibrium—a moment with rapid speciation between periods of little or no change. These events can be a sign of change, of rumbling in the steady balance that is our market ecosystem.

From an ecological perspective, GameStop is just one example of what we might expect. As we see more participants in the marketplace, connected by technology and social media, we may see more potential to expose fragilities in the financial markets and more periods of punctuated equilibrium. In this case, a mass of people focused on individual stocks and connected through social networks proved strong enough to build a united force, with a longing to hold on to the staples of the past in the face of hedge funds and other short-sellers. Other companies are now also in the spotlight, Bed Bath and Beyond, Nokia, and AMC. The effects of frenzy have even spread to some commodities markets like silver and gold. At the same time, GameStop share prices have fallen dramatically since their high at the end of January, perhaps reverting to a more normal equilibrium and demonstrating the fragility of these bubbles. These events are a sign of change, the growing pains necessary to react to a new world order.

The rumblings of change can be scary to investors who are trying to grow their investments or protect their retirement accounts. The AMH suggests that change, while scary, can also lead to opportunities, as long as investment strategies continuously adapt as markets evolve in order to deliver more consistent performance. At AlphaSimplex, we believe a diversified portfolio that includes multiple asset classes, strategies, and investment philosophies may allow investors to weather changing market environments, even if we see more events like the GameStop surge.

References

Chung, Juliet. January 25, 2021. "Citadel, Point72 to Invest $2.75 Billion Into Melvin Capital Management." *Wall Street Journal*. https://www.wsj.com/articles/citadel-point72-to-invest-2-75-billion-into-melvin-capital-management-11611604340.

Daniel, Will. January 26, 2021. "GameStop Short-Sellers Have Lost $5 Billion This Year as Reddit's Day-Trader Army Squeezed Their Bearish Bets." *Business Insider*. https://markets.businessinsider.com/news/stocks/gamestop-short-sellers-squeezed-losses-reddit-traders-army-cohen-palihapitiya-2021-1-1030006226.

Jarvis, Paul and Bailey Lipschultz. January 27, 2021. "GameStop's Wild Rise Drives Short Sellers to Throw in the Towel." *Bloomberg*. https://www.bloomberg.com/news/articles/2021-01-27/gamestop-extends-meteoric-stock-surge-on-boost-from-musk-tweet.

Ponciano, Jonathan. January 25, 2021. "GameStop Saga Continues As Reddit Users Battle Wall Street—Here's the Latest In the Wild 2,300% Stock Surge." *Forbes*. https://www.forbes.com/sites/jonathanponciano/2021/01/25/gamestop-short-squeeze-citron-reddit/?sh=3e466d144af6.

Ponciano, Jonathan. January 26, 2021. "GameStop's Massive Surge Creates a New Billionaire as Reddit Traders Bet Against Wall Street." *Forbes*. https://www.forbes.com/sites/jonathanponciano/2021/01/26/gamestops-massive-surge-creates-a-new-billionaire-as-wall-street-bets-against-reddit-traders/?sh=2df6019b35ae.

About the Authors

Kathryn M. Kaminski, Ph.D., CAIA® is the Chief Research Strategist at AlphaSimplex Group. As Chief Research Strategist, Dr. Kaminski conducts applied research, leads strategic research initiatives, focuses on portfolio construction and risk management, and engages in product development. She also serves as a co-portfolio manager for the AlphaSimplex Managed Futures Strategy and AlphaSimplex Global Alternatives Strategy. Dr. Kaminski's research and industry commentary have been published in a wide range of industry publications as well as academic journals. She is the co-author of the book *Trend Following with Managed Futures: The Search for Crisis Alpha* (2014). Dr. Kaminski holds a B.S. in Electrical Engineering and Ph.D. in Operations Research from MIT.

H. Gray Karpel is a Senior Marketing Associate at AlphaSimplex Group. As Senior Marketing Associate, Ms. Karpel oversees marketing materials and ongoing reporting, responds to Requests for Proposal, and coordinates interdepartmental projects. Ms. Karpel earned a B.A. in Classics from Reed College and an M.L.I.S. from University of Illinois, Urbana-Champaign.

Contact Information

For more information, please contact:
clientservices@alphasimplex.com
617-475-7100

Disclosures

Past performance is not necessarily indicative of future results.

The illustrations and examples presented in this document were created by AlphaSimplex based on unaudited external data and internal methodologies. Accordingly, while the underlying data were obtained from sources believed to be reliable, AlphaSimplex provides no assurances as to the accuracy or completeness of these illustrations and examples. The views and opinions expressed are as of 2/5/2021 and may change based on market and other conditions. There can be no assurance that developments will transpire as forecasted, and actual results may vary. All investments are subject to risk, including risk of loss.

This document has been prepared for informational purposes only and should not be construed as investment advice. AlphaSimplex is not registered or authorized in all jurisdictions and the strategy described may not be available to all investors in a jurisdiction. Any provision of investment services by AlphaSimplex would only be possible if it was in compliance with all applicable laws and regulations, including, but not limited to, obtaining any required registrations. This material should not be considered a solicitation to buy or an offer to sell any product or service to any person in any jurisdiction where such activity would be unlawful.

In Singapore: Provided by Natixis Investment Managers Singapore Limited (company registration no. 199801044D). **In Taiwan**: Provided by Natixis Investment Managers Securities Investment Consulting (Taipei) Co., Ltd., a Securities Investment Consulting Enterprise regulated by the Financial Supervisory Commission of the R.O.C. Registered address: 34F., No. 68, Sec. 5, Zhongxiao East Road, Xinyi Dist., Taipei City 11065, Taiwan (R.O.C.), license number 2020 FSC SICE No. 025, Tel. +886 2 8789 2788. **In Japan**: Provided by Natixis Investment Managers Japan Co., Ltd. Registration No.: Director-General of the Kanto Local Financial Bureau (kinsho) No.425. Content of Business: The Company conducts investment management business, investment advisory and agency business and Type II Financial Instruments Business as a Financial Instruments Business Operator. **In Hong Kong**: Provided by Natixis Investment Managers Hong Kong Limited to institutional/ corporate professional investors only. **In Australia:** Provided by Natixis Investment Managers Australia Pty Limited (ABN 60 088 786 289) (AFSL No. 246830) and is intended for the general information of financial advisers and wholesale clients only. **In New Zealand:** This document is intended for the general information of New Zealand wholesale investors only and does not constitute financial advice. This is not a regulated offer for the purposes of the Financial Markets Conduct Act 2013 (FMCA) and is only available to New Zealand investors who have certified that they meet the requirements in the FMCA for wholesale investors. Natixis Investment Managers Australia Pty Limited is not a registered financial service provider in New Zealand. **In Latin America:** Provided by Natixis Investment Managers S.A. **In Colombia**: Provided by Natixis Investment Managers S.A. Oficina de Representación (Colombia) to professional clients for informational purposes only as permitted under Decree 2555 of 2010. Any products, services or investments referred to herein are rendered exclusively outside of Colombia. **In Mexico:** Provided by Natixis IM Mexico, S. de R.L. de C.V., which is not a regulated financial entity, securities intermediary, or an investment manager in terms of the Mexican Securities Market Law (Ley del Mercado de Valores) and is not registered with the Comisión Nacional Bancaria y de Valores (CNBV) or any other Mexican authority. Any products, services or investments referred to herein that require authorization or license are rendered exclusively outside of Mexico. While shares of certain ETFs may be listed in the Sistema Internacional de Cotizaciones (SIC), such listing does not represent a public offering of securities in Mexico, and therefore the accuracy of this information has not been confirmed by the CNBV. Natixis Investment Managers is an entity organized under the laws of France and is not authorized by or registered with the CNBV or any other Mexican authority. Any reference contained herein to “Investment Managers” is made to Natixis Investment Managers and/or any of its investment management subsidiaries, which are also not authorized by or registered with the CNBV or any other Mexican authority. **In Uruguay:** Provided by Natixis Investment Managers Uruguay S.A., a duly registered investment advisor, authorised and supervised by the Central Bank of Uruguay. Office: San Lucar 1491, Montevideo, Uruguay, CP 11500.

The above referenced entities are business development units of Natixis Investment Managers, the holding company of a diverse line-up of specialised investment management and distribution entities worldwide. The investment management subsidiaries of Natixis Investment Managers conduct any regulated activities only in and from the jurisdictions in which they are licensed or authorised. Their services and the products they manage are not available to all investors in all jurisdictions.

In the United States: Provided by Natixis Distribution, L.P. 888 Boylston St. Boston, MA 02199. Natixis Investment Managers includes all of the investment management and distribution entities affiliated with Natixis Distribution, L.P. and Natixis Investment Managers S.A.

This material should not be considered a solicitation to buy or an offer to sell any product or service to any person in any jurisdiction where such activity would be unlawful.

3450582.1.1
Exp. 2/28/22
ASGWP18-0221