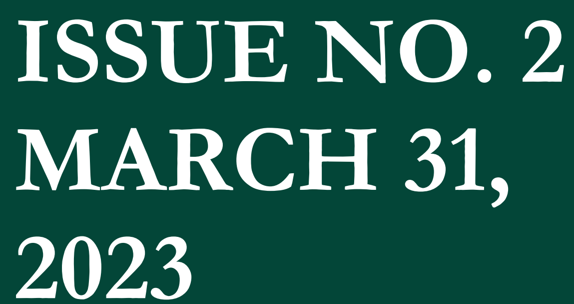


# Short Squeeze Analysis

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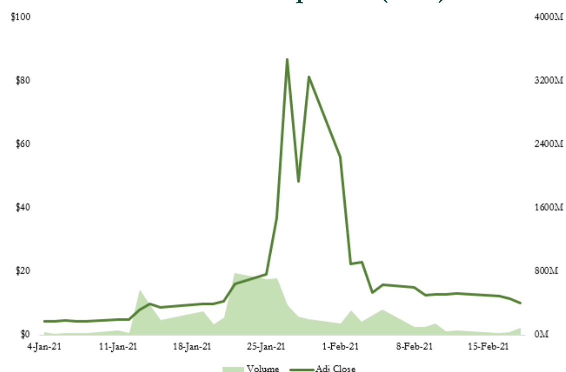
# SHORT SQUEEZE ANALYSIS

## What is a Short Squeeze?

A short squeeze is an unusual condition that triggers when there is a rapid rise in stock prices or tradable security prices. This increase in pricing would is further accelerated when short sellers cover their short positions and purchase more shares. The increase in demand for the stock results in a sharp uptick in its price. Contrarian investors try to anticipate a short squeeze by purchasing stocks with heavy short interests, hopeful that there comes an opportunity to break out. Short sellers and contrarian investors are seeking considerably more risk when entering their positions.

**Exhibit 1: GME Short Squeeze (2021)**




Source: Yahoo Finance

## What is Short Interest?

Short interest indicates how many shares of a company are **currently sold short and not yet covered as a proportion of the total float of the company**. Selling short is when an investor sells the stock they do not own and hopes to purchase the stock at a lower price in the future. This allows them to profit off price decreases but results in the risk of unlimited price increases. When short interests aren't covered by a company, it means that there aren't enough shares available to be borrowed. This can happen when a company has a low float, which means that there isn't lots of shares availably traded in the open market.

If shorting investors are right, they pocket the difference between the current price and the price when they initiated the short. If they're wrong, they're forced to buy at a higher price and pay the difference between the price they borrowed at and its sale price. **Short sellers exit their positions with buy orders, so the coincidental exit of these short sellers pushes prices higher**. The continued rapid rise in price also attracts buyers to the security. The combination of new buyers and panicked short sellers creates a rapid rise in price that can be stunning and unprecedented.

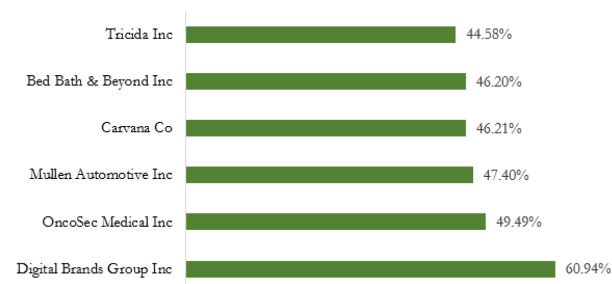
## When and Why Do Short Squeezes Happen?

This **happens to companies that have high short interest**, which can result from underperformance. Investors anticipating a decline in its stock price will open a short position. Bearish trends in the company's industry or broader market could cause investors to short a company. When a company has negative investor sentiment, it presents an opportunity for institutional investors to open a significant short position. When institutional investors smell blood in the water, they can capitalize on investors trying to close their positions – even if it means paying a handsome premium.

## How does it work?

The beginning of a short squeeze is nuanced, but "you'll know it when you see it." There are telltale signs of a coming short squeeze that can tip off a market maker, which would compel them to post bids for a stock higher than the fair value. When investors continue to buy at such inflated prices, the term "short squeeze" will be in conversation. Twitter or CNBC will eventually pick up on it and the entire market will realize there is a short squeeze taking place. Its completion can be even more complex as more short sellers close their position the remaining short positions become more and more costly to close. A strategy for a patient investor may be to wait out the price increases until they can close their position after the squeeze – but in the case of a trading on margin, they may be forced their hand by their lender.

**Exhibit 2: High Short Interest Stocks (Dec 2022)**




Source: Statista

## Margin Call

A **margin call** is when short investors are forced to buy shares to cover the position by the brokerage that lent capital to purchase the security on margin. An investor might not have enough capital to borrow shares or the stock might require the investor to purchase on margin, which would lead this investor to borrow. When an investor purchases securities on margin, they are required to deposit a certain percentage of the total purchase price in their margin account, which is the collateral for the loan. If the share price rises to a point where its value is high than the equity in the margin account, the investor will be required to deposit additional funds in this account back up to the margin level. When the investor has made a poor investment, the lender may liquidate some or all of the securities in the account that were put up as collateral. Leveraged trading can amplify investors' returns, but equally amplifies associated risk.

# HISTORICAL SHORT SQUEEZES

## Netflix (2012)

Netflix received better-than-expected earnings from Wall Street analysts. In Q2 2012 the stock had 20% short interest and its price fell 67% over one year. Concerns over the company's business model and competition were superseded by the platforms ability to disrupt the industry and deliver great returns for long investors. The 20% float of shares on loan were caught in a short squeeze, as prices for the stock rose 350%.

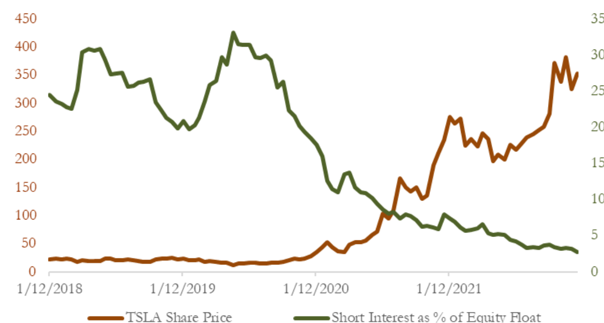
**Exhibit 3: NFLX Short Interest vs. Share Price**

Source: Bloomberg

## Tesla's Stock Price Rally (2020)

By mid-2020, Tesla was the most shorted stock in the world. The market believed the stock was overvalued however continual activity in the press and strong financial reports resulted in a slow and steady stock rally. Short investors needed to cover their positions further driving prices up, alongside bullish investors causing a compounding effect.

**Exhibit 4: TSLA Short Interest vs. Share Price**

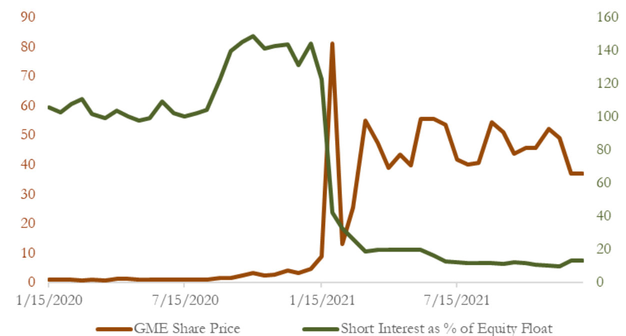



Source: Bloomberg

## GameStop (2021)

140% of GameStop's public float had been sold short and short sellers need to cover themselves by buying as much stock as possible. Retail traders and Redditors unprecedentedly came together to strategize as a unit, causing an increase in retail investment. The drastic inflation in stock price caused hedge funds, namely Citadel and Melvin Capital, who had significant short positions to cover their losses. This was the most recent squeeze to break headlines mainly due to the mob-driven retail investors flexing their muscles.

**Exhibit 5: GME Short Interest vs. Share Price**




Source: Bloomberg

## Historical Evidence

Short squeezes have often come from positive earnings calls and **there aren't many instances where short squeezes have been triggered by mob mentality** such as the GameStop event. In general, for a short squeeze to perform well there must be an underperforming company that has experienced relatively negative market sentiment by not only institutions but retail investors as well. When analyzing short interest coverage, there isn't a set amount that has resulted in short squeezes however most scenarios demonstrate that a company doesn't need a drastically high short interest for a short squeeze to happen. Short squeeze returns and increases in price have not been exceptional, with most ROI less than 100%. There are multiple times when companies have sustained a high short interest but did not experience a short squeeze event.

## Monetization & Trade Idea

It is difficult to predict short squeezes, even with the use of algorithms, but there are potential opportunities for trade execution. Due to the large capital requirements of short squeezes, the opportunity could come from tracking websites that will allow retail traders to band together. It is crucial to track companies with high short interest float, as it will allows the compound effect of a short squeeze if share prices rise quickly.

It is difficult to predict earnings results which has been a driving factor of most past short squeezes. Although, a previously viable and possible strategy is to monitor and move with a mob mentality.

There are a few foreseeable trade ideas with varying levels of risk:

- Directly purchasing long securities into an investment with the potential for a short squeeze.
- Purchasing call options on securities that are demonstrating signs of short squeezes.
- Purchasing securities while they are currently undergoing a short squeeze and timing the exit in order to maximize returns and minimize losses.

Since there is no confirmed strategy to time when the short squeeze happens, stock volumes can be tracked and alerted when they start to take off. In general, we should exit investments into businesses when there is not any event driven catalysts like earnings calls. A sound way to spot potential a short squeeze that can be longed are by analyzing the short interest divided by the daily volume. This would provide a days-to-cover value which hints towards the duration of the squeeze. If there is a high uptick in volume any opportunities of slowdowns or pullbacks would be a strong time to exit the investment. When share price stabilize after facing a long period of increase, this would a good signal to leave the investment.

While some short squeezes last hours, others may last days and timing the exit really depends on the days-to-cover metric. A higher value would result in a longer holding period. Short interest levels should also be monitored. As levels decrease beyond the "normal" short interest of a stock, positions should immediately be exited. Once the shorted shares deviate below the average short interest, we can assume that many positions are being exited or covered and the window for opportunity for this short squeeze has closed.

## Benchmarking

We can benchmark our returns to the S&P and asses the risk-adjusted basis across a one-year span. By deriving Alpha against the market, it can be found if it is worth using this strategy.

## Managing Risks

During times of high short interest, unusual trading activity will be detected by CBOE. This would increase the price of call options and also impact short squeeze prospectors' ability to benefit. As well, if investors are holding options while stock prices decline this would result in significant downside in the investment. In order to reduce risks, purchase regular shares and set floor market orders to 70% purchase value. This would mitigate any short-term fluctuations in price while providing downside protection if timing the short squeeze fails.