

# The Media Short Squeeze Score

Combining digital- and social-media with securities lending data to predict the squeeze.

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## Introduction

The past few weeks have served as a reminder that the meme stocks phenomenon is far from over. Retail investors continue to wield influence over the equity market – especially for small cap stocks. While it has been several years since the first GameStop phenomenon in 2021, an important question remains: how can institutional investors systematically identify potential retail-driven short squeeze events? In this article, we introduce a framework that integrates proprietary and alternative data to identify retail-driven short squeeze risks. Specifically, we combine securities lending market data from S&P Global with proprietary measures of digital media sentiment derived from traditional media sources and Reddit-based social media chatter – including emoji sentiment and short squeeze intensity. This approach enhances our ability to systematically identify stocks at risk of a short squeeze, particularly those driven by a surge in retail investor enthusiasm.

## Key findings:

- Our findings show that the traditional digital media sentiment and Reddit chatter – which we term the **“Media Short Squeeze Score”** – can provide insights into retail investor activity.
- We introduce a framework to combine the Media Short Squeeze Score with securities lending data that successfully flagged historical short squeezes in names like **GameStop**, **Carvana**, **Opendoor Technologies**, and **Rocket Lab USA**.
- A historical analysis finds stocks identified as top short squeeze candidates (“Alert”) using this framework observed an average maximum price increase of **~33%** over the following month.
- We examine a measure called “draw up”, defined as the maximum return from the price on t0 over the next 20 trading days, in excess of market returns.

The remainder of this article is as follows: The first section outlines data sources and signal construction. Section 2 presents empirical results based on historical analysis. Lastly, section 3 discusses historical case studies.

## Data and Signal Construction

With the increasing collaboration across online social platforms and accessibility to markets with apps such as Robinhood, retail traders can sometimes act as a single entity – becoming an influential market force. For short sellers, this has introduced a new layer of risk: the potential for sudden, retail-driven short squeezes that are difficult to anticipate using traditional market signals alone.

To address this challenge, we construct a framework that integrates securities lending market data with proprietary sentiment signals derived from both digital- and social- media. Our goal is to systematically identify stocks that are vulnerable to retail-driven squeezes before they occur using the below inputs:

1. Securities Lending Data (S&P Global)	2. Digital Media Sentiment (State Street MediaStats)	3. Social Media Signals (Reddit via State Street MediaStats)
We use utilization from S&P Global as the primary indicator of short position pressure. Utilization is the percentage of lendable shares (supply from asset owners) that are currently out on loan (demand by short sellers). High utilization levels suggest that a stock is heavily shorted relative to lendable supply and may be more susceptible to a squeeze if buying pressure emerges.	The digital sentiment scores are derived from over 150,000 traditional media sources processed daily using natural language processing (NLP). These scores capture the tone and intensity of media coverage for individual stocks, providing a broad view of how companies are perceived in the financial press and general news outlets.	<p>Reddit is a relatively new source of information that institutional investors can leverage for insights into how the retail community views a given stock (or the broader economy for that matter – think consumer sentiment). For these purposes, we aggregate several stock-level indicators from Reddit every day:</p> <p><b>Discussion Intensity:</b> The volume of mentions for a given stock.</p> <p><b>Short Squeeze Intensity:</b> The frequency and tone of squeeze-related language.</p> <p><b>Emoji Sentiment:</b> A novel metric that captures emotional tone of posts using emojis, which often convey sentiment more directly than text.</p>

### Media Short Squeeze Signal

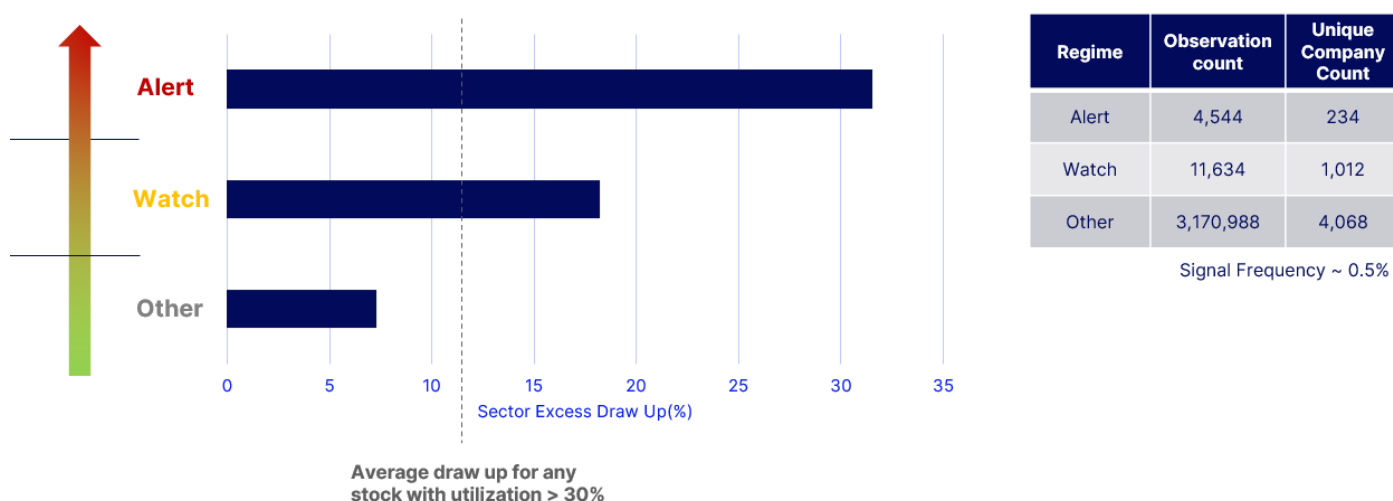
To construct the media short squeeze signal, we first normalize the 4 stock-level signals (social media emoji sentiment, discussion intensity, and short squeeze intensity, as well as traditional digital media sentiment) using a cross-sectional z-score on a given day. The normalized values are then summed to form a single composite score—the **Media Short Squeeze Score**. Finally, we define two signal regimes based on the Media Short Squeeze Score thresholds overlayed with the stock's utilization level:

- A stock is “**Alert**” if its media squeeze score exceeds 10 *and* utilization is above 30%.
- A stock is “**Watch**” if its media squeeze score exceeds 5 *and* utilization is above 30%.

## Empirical Findings

To evaluate the effectiveness of the Media Short Squeeze Score, we backtest the Media Short Squeeze regime signals that are defined in section 1 from 2020 to 2025 within a broad universe of U.S. equities, primarily the Russell 3000 and some micro caps. Specifically, we examine the future one-month price “draw up”, defined as the maximum return from the price on t0 over the next 20 trading days, in excess of market returns.

**Figure 1: Average Future Draw-Up for Media Short Squeeze Regimes**



Source: State Street Markets, S&P Global, State Street MediaStats, MSCI

As shown in **Figure 1**, we find stocks that fall in the “Alert” regime observe an average draw up of ~33% within the one month after being flagged and stocks that fall into the “Watch” regime observe ~18% draw up on average, while stocks outside these regimes average only ~7%. For context, the benchmark drawdown for any stock with utilization above 30% is ~11%, suggesting that social and digital media data provide additional value in identifying stocks at risk of a short squeeze—beyond what traditional securities lending data alone can offer.

To test the statistical significance of this relationship, we run a panel regression over the full sample period (2020–2025), controlling for standard market factors and stock-level attributes that may influence future price spikes. **Exhibit 1** presents the results.

Both the “Watch” and “Alert” regime signals are statistically and economically significant predictors of future one-month draw-ups. Notably, when the draw-up is scaled by the stock’s volatility, many traditional control variables lose explanatory power—yet the Media Short Squeeze regimes remain robust and statistically significant.

## Exhibit 1: Full Panel Regression Results – Predicting Future One-month Draw Up

Draw Up	Coefficient	T-stat
Intercept	3.68	14.01
VIX	0.02	2.14
Russell 3000 Returns	1.62	1.18
Market Cap	-0.41	-4.94
Penny Stock Flag	1.98	3.39
Prev 3mo Skew	0.1	1.67
Prev 1w Volatility	0.61	4.95
Prev 1m Return	0.16	3.14
Days-to-cover	-0.09	-0.57
<b>Utilization</b>	<b>0.83</b>	<b>8.49</b>
<b>Media Squeeze Score</b>	<b>0.21</b>	<b>2.09</b>
<b>WATCH</b>	<b>1.05</b>	<b>2.53</b>
<b>ALERT</b>	<b>6.07</b>	<b>3.15</b>

Adj. R<sup>2</sup>: 4.1%

Source: State Street Markets, S&P Global, State Street MediaStats, MSCI

Draw Up Scaled by Stock Volatility	Coefficient	T-stat
Intercept	2.01	20.01
VIX	-0.03	-10.03
Russell 3000 Returns	-0.85	-2.26
Market Cap	-0.02	-0.40
Penny Stock Flag	0.23	3.39
Prev 3mo Skew	0.03	2.67
Prev 1w Volatility	-0.29	-9.95
Prev 1m Return	0.04	1.87
Days-to-cover	0.02	0.98
<b>Utilization</b>	<b>0.02</b>	<b>0.86</b>
<b>Media Squeeze Score</b>	<b>0.01</b>	<b>1.34</b>
<b>WATCH</b>	<b>0.24</b>	<b>4.15</b>
<b>ALERT</b>	<b>0.90</b>	<b>5.00</b>

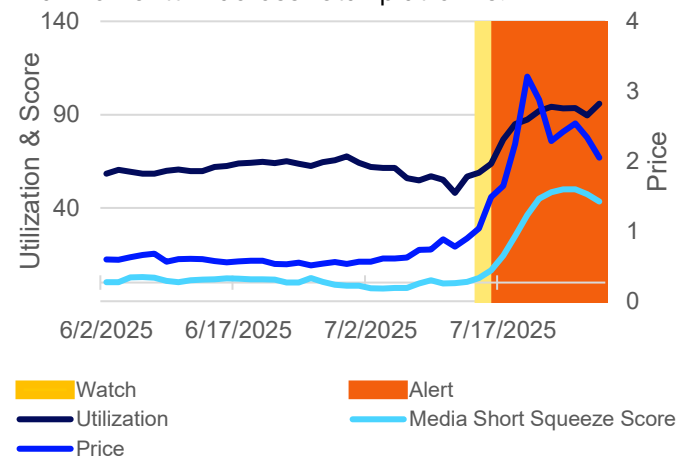
Adj. R<sup>2</sup>: 1.64%

## Event Studies

Lastly, to illustrate the practical applications, we examine a historical analysis of how our proposed Media Short Squeeze Score framework performed during several previous high-profile cases over the last few years. This retrospective approach offers valuable insight into the indicator's timeliness and predicative power in dynamic trading environments.

## Opendoor Technologies (July 2025)

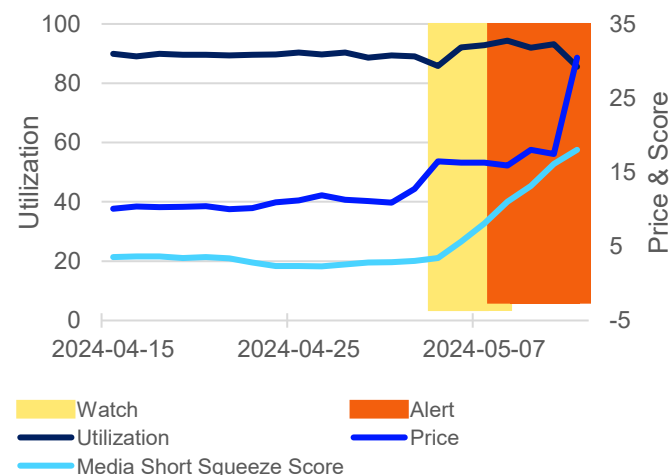
In mid-July 2025, Opendoor Technologies (OPEN) observed a classic “meme stock” short squeeze rally. Around July 14<sup>th</sup>, a prominent investor publicly endorsed the stock, sparking interest on social media. Our social media indicators captured the increase in chatter and flashed a “Watch” signal on July 16<sup>th</sup>, followed by an “Alert” signal on July 17<sup>th</sup>. Over the following days, Opendoor’s share price climbed sharply, fueled by speculative buying and amplified by viral momentum across retail platforms.



Source: State Street Markets, S&P Global, State Street MediaStats, MSCI  
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## GameStop (May 2024)

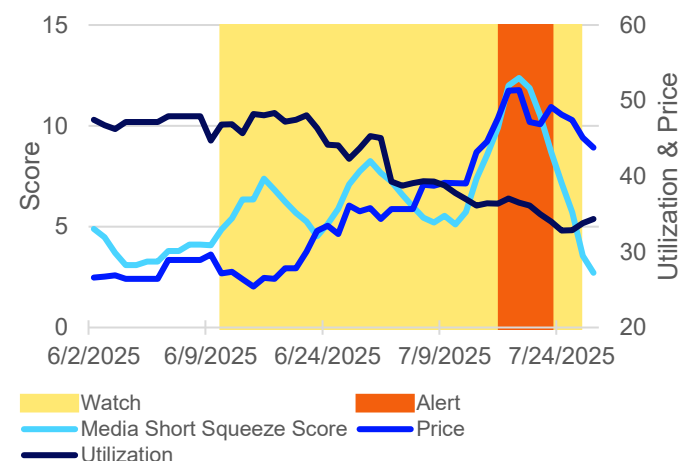
The May 2024 GameStop rally underscores the value of the Media Short Squeeze Score. The signal entered the “Watch” regime on May 6 and escalated to “Alert” by May 8 – ahead of a price surge on May 13. The surge in the score was driven mostly by social media activity, reinforcing the value of alternative data in anticipating retail-driven squeezes.



Source: State Street Markets, S&P Global, State Street MediaStats, MSCI  
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## Rocket Lab (July 2025)

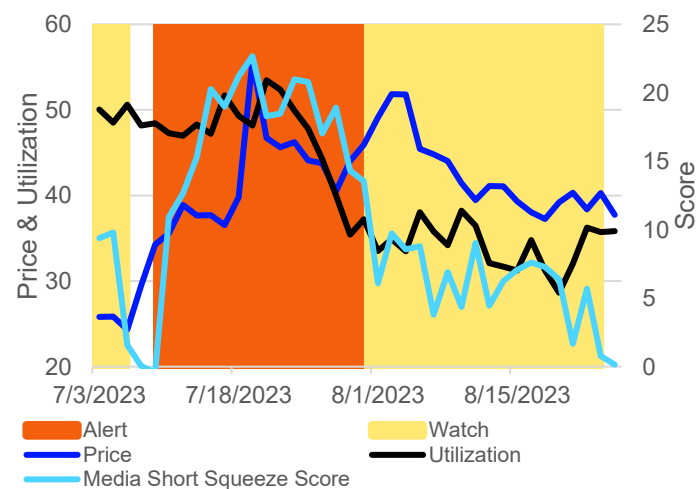
Driven by social media sentiment and high levels of utilization, our Media Short Squeeze Score flagged RCLB as “Watch” on June 11<sup>th</sup>, and the stock has since experienced a major short squeeze, with its stock price surging as retail traders bought in. The decline in utilization suggests short sellers closed positions.



Source: State Street Markets, S&P Global, State Street MediaStats, MSCI  
For illustrative purposes only. Not a stock recommendation.

## CARVANA (July 2023)

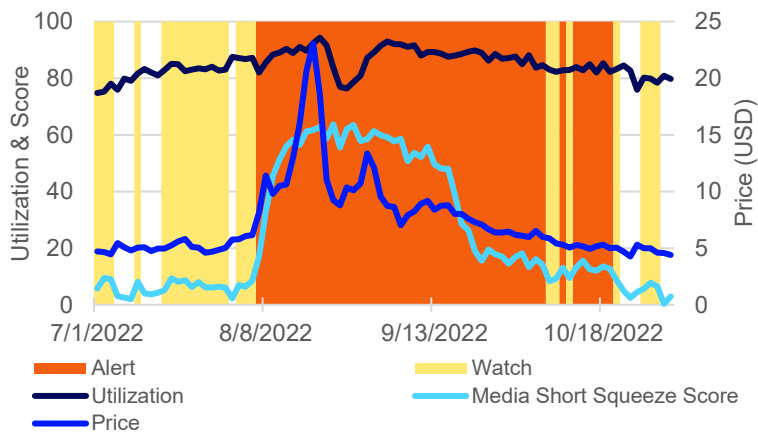
Carvana observed a squeeze event in July 2023 that highlights the value of digital media sentiment. Rising sentiment around July 10<sup>th</sup> triggered an “Alert,” and social media chatter soon followed, echoing the optimism. This sequence underscored how early digital signals can precede retail investor attention.



Source: State Street Markets, S&P Global, State Street MediaStats, MSCI  
For illustrative purposes only. Not a stock recommendation.

## Bed Bath & Beyond (August 2022)

One the original “meme stocks”, Bed Bath & Beyond observed a notable squeeze in August 2022. Our Media Short Squeeze Score and the high levels of utilization triggered an alert nearly two weeks before the price peak and decline in utilization.



Source: State Street Markets, S&P Global, State Street MediaStats, MSCI  
For illustrative purposes only. Not a stock recommendation.

## Conclusion

This article introduces a systematic framework for identifying retail-driven short squeeze risk by combining securities lending utilization with sentiment signals from digital media and Reddit. This framework captures the intersection of constrained short positions and surging retail enthusiasm, offering institutional investors a timely signal of short squeeze risk. Empirical analysis suggests that stocks flagged in the “Alert” regime experience an average future one-month max draw-up of ~33%, with strong statistical significance even after controlling for traditional market factors. Lastly, a historical analyses of several high-profile cases illustrate the signal’s real-world effectiveness, highlighting the value of integrating alternative media data with securities lending data..

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