

Quantitative Strategy

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Alternative Data - Reddit Alerts



Adam Gould
HEAD OF QUANTITATIVE RESEARCH

Key Takeaways

- In our first foray into the world of unstructured data, we look into Reddit, in particular the WallStreetBets sub-reddit, to see if the data can be used to inform stock selection.
- While the total number of mentions on WallStreetBets is large, mentions tend to concentrate among the most popular stocks.
- Our Reddit Alert List includes stocks with an uptick in mentions on WallStreetBets combined with unusual trading activity. After being added to the list, stocks tend to underperform for holding periods out to 21 days.

Introduction – Analyzing Reddit for Stock Selection

There is the headline, and then there is the truth. One is a simple soundbite, while the other is a complicated and nuanced maze of thoughtful consideration. In January 2021, many in the news media proclaimed that retail investors had done the impossible and dethroned the Wall Street institutional elite. For a few weeks, it appeared that a genuine retail investor revolution was occurring on Wall Street. Retail investors identified institutional short positions in a company beloved to many millennials called GameStop. As retail investors started talking up the stock on a Reddit group called WallStreetBets, GameStop saw its price appreciate 2,265% in about two weeks. Media coverage was thick and overzealous prognosticators signaled the end of an era of institutional dominance over the spoils of Wall Street.



The truth, of course, is a lot more complicated than retail traders assailing the wicked Wall Street elite. There is a real revolution occurring on Wall Street, but the Reddit rebellion was a symptom, not the main event. The erosion of barriers to entry to certain asset classes and financial tools, like derivatives, has been occurring for decades now. This was more of a cause of the sensational events of January 2021 than many on the WallStreetBets forum would like to admit.

Retail investors have been thematically investing effectively and have even been ahead of institutions in some areas. Nonetheless, the crowd is always the crowd, and being a part of it can lose you money quickly. Many who thought following investment advice from social media would end up profitably have found out it more often ends up in losses.

Nonetheless, Wall Street has paid deep attention to these events, and it has caused permanent changes in how institutions operate. Hedge funds, for sure, will certainly perform additional due diligence before short-selling stocks, in fact, 85% of Hedge Funds and 42% of asset managers are now tracking various message boards heavily used by retail traders. Now, we are too.

We have been tracking mentions of individual stocks on Reddit since August 2020. Aside from seeing which stocks are most heavily mentioned, we want to determine if this data can be used to inform about the future prospects of individual stocks and whether we can proactively identify the next GameStop.

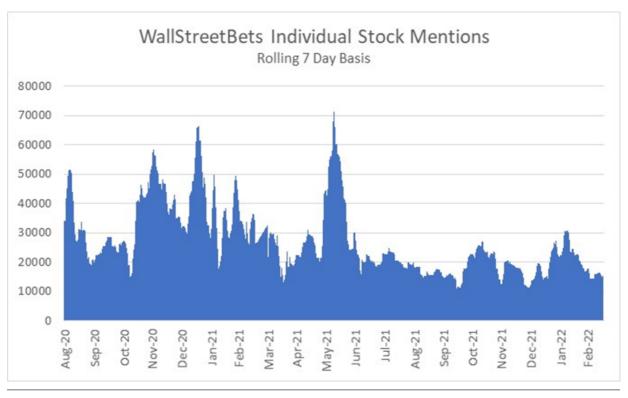
Reddit Data Overview

To start with, we give a general sense of the structure of the data. Fig. 1 shows the total number of mentions, across all stocks, summed over a rolling 7-day basis. On a typical day, there are thousands of individual security mentions, with the daily tally occasionally jumping past 10,000. In total, there are over two million individual stock mentions across the history we have, so this obviously represents a very large dataset we can mine.



Fig. 1 – Individual Stock Mentions on WallStreetBets

Source: Reddit, Fundstrat analysis.



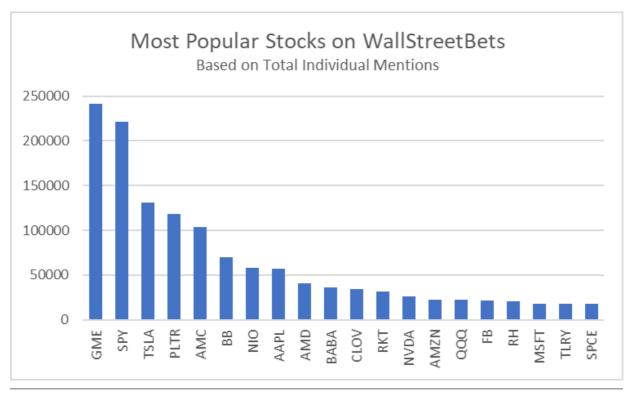
Note: Shows number of individual stock mentions on the WallStreetBets sub-reddit, summed on a rolling 7-day basis. Period of analysis is from August 30, 2020 through March 16, 2022.

We also break out the popularity of individual stocks on WallStreetBets. Fig. 2 shows the total number of mentions, across the entire history, broken out by individual stock. The left-most bar in Fig. 2 indicates the number of times the most popular stock (GameStop) was mentioned across the entire history. The second bar from the left shows the frequency with which the second-most popular ticker (SPY) was mentioned, and so on. The frequency of mentions has a long right tail – while the top 5 tickers (GameStop, SPY, Tesla, Palantir and AMC) account for nearly 40% of the total mentions, there are more than 80 distinct tickers that are mentioned at least 3,000 times through the period we analyzed (8/30/20-3/16/22).



Fig. 2 – Individual Stock Mentions Across WallStreetBets

Source: Reddit, Fundstrat analysis.



Note: Shows total mentions per ticker, ordered by decreasing ticker popularity. Period of analysis is from August 30, 2020 through March 16, 2022.

The Reddit Alert List

Since different stocks have differing degrees of popularity, we set a baseline level for each stock to determine whether mentions of that stock represent a unique signal. For example, if GameStop registers 100 mentions in a day, such activity doesn't represent an unusual level of attention. On the other hand, if an infrequently mentioned stock is mentioned 100 times in a given day, such activity likely indicates that individuals are paying attention to that stock.

In addition to finding stocks that are seeing an uptick in their mentions, we want to confirm that <u>activity</u> in that stock is picking up. We view a pickup in trading activity as a confirming signal – it's one thing for a stock to be mentioned on Reddit, but if there is also an associated pickup in trading activity, we can be more convinced that investors are focusing on the stock in question.



We, therefore, look for stocks that have an unusual increase in mentions on WallStreetBets, which also show an increase in trading volume and a skew toward call buying. **As it turns out, stocks that meet these criteria tend to underperform going forward**. We use this combination of signals (unusual Reddit activity, pickup in trading volume, and skew toward calls) to screen stocks for the Reddit Alert list.

We show a listing of the current members of the Reddit Alert list in Fig. 3. Most names are smaller and more speculative, but there are also some larger, more well-known names, like FB, BABA, and PYPL. Going forward, we plan to publish updates to the Reddit Alert list monthly.

Fig. 3 Reddit Alert Stock List – Current Members [1]

Source: S&P, FactSet, Reddit, Fundstrat analysis.

Reddit Alert Stock List - Current Members

As of March 16, 2022

Ticker	Company Name	Inclusion Date	Market Capitalization (USD Million)	Performance Since Inclusion (%vs. S&P 500)	GICS Sector
AMC	AMC Entertainment Holdings, Inc. Class A	3/15/2022	7.871	,	Communication Services
BABA	Alibaba Group Holding Ltd Sponsored ADR	2/22/2022	282,509	-8.27	Consumer Discretionary
BBBY	Bed Bath & Beyond Inc.	3/7/2022	2,054	-5.53	Consumer Discretionary
DIDI	DiDi Global Inc. Sponsored ADR Class A	3/11/2022	10,859	31.27	Industrials
FB	Meta Platforms Inc. Class A	2/23/2022	470,198	-0.52	Communication Services
HOOD	Robinhood Markets, Inc. Class A	3/4/2022	9,458	15.94	Financials
NIO	NIO Inc. Sponsored ADR Class A	3/14/2022	28,946	28.55	Consumer Discretionary
PLTR	Palantir Technologies Inc. Class A	3/16/2022	22,745	0.00	Information Technology
PYPL	PayPal Holdings, Inc.	2/17/2022	125,727	3.10	Information Technology
RIG	Transocean Ltd.	3/7/2022	2,547	-25.35	Energy
RIWN	Rivian Automotive, Inc. Class A	3/2/2022	37,110	-21.71	Consumer Discretionary
SKLZ	SkillzInc. Class A	2/23/2022	989	-22.80	Communication Services
SPCE	Virgin Galactic Holdings Inc	2/15/2022	2,064	-23.07	Industrials
VSCO	Victoria's Secret & Company	3/2/2022	4,562	-4.57	Consumer Discretionary
WTI	W&T Offshore, Inc.	3/7/2022	609	-35.24	Energy
ZIM	ZIMIntegrated Shipping Services Ltd.	3/9/2022	10,612	16.07	Industrials

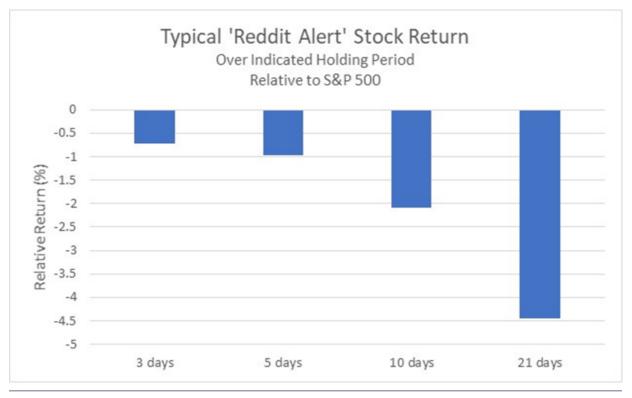
Note: Shows current members of the Reddit Alert stock list, their respective inclusion dates, and relative performance(vs. the S &P 500) since inclusion. Data is as of March 16, 2022. Transaction costs are not considered.

Fig. 4 shows the performance for the typical stock after it has been added to the Reddit Alert list. New additions will usually underperform the index over a period out to 21 days, with the typical underperformance measuring 4.4% on a 21-day horizon.



Fig. 4 Performance of Reddit Alert List

Source: S&P, FactSet, Reddit, Fundstrat analysis.



Note: Shows median return(relative to the S&P 500) in the 3 days, 5 days, 10 days, and 21 days for each stock after it is added to the Reddit Alert stock list. The period of analysis is from August 30, 2020 through March 16, 2022. Transaction costs are no t considered.

How can investors use our Reddit Alert list? First, investors can use the list to find potential shorting candidates, or the signal can be added to an existing shorting discipline. For investors that are unable to short, or do not wish to assume the risks inherent in shorting, the Reddit Alert list can still provide utility. Investors holding stocks on the Reddit Alert list might be wise to underweight those holdings relative to other positions. Likewise, an investor considering purchasing or increasing a position among these stocks may wish to put off such a transaction until the relevant name is removed from the Reddit Alert list.

Conclusion



In early 2021, a handful of stocks that saw their popularity increase dramatically on WallStreetBets captured public attention for their rapid price increases. The analysis above, however, shows that in the typical case, stocks that see a pickup in activity on Reddit along with an increase in trading activity, actually *underperform* over the subsequent weeks. Investors, therefore, need to be cautious when considering a stock that is popular among the crowd on WallStreetBets. To quote Gandhi, "It's easy to stand with the crowd. It takes courage to stand alone."

[1] Once added to the Reddit Alert list, a stock remains on the list for 21 trading days and is then removed. If, after removal, the same stock subsequently passes the inclusion criteria, it is readded to the list (for another 21 days). In this way, a stock can be added to the Reddit Alert list multiple times. The list shows the most recent inclusion date for each current member; in the case of AMC, it was most recently added on 3/15/22.



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