

Decentralized Economic Activism: Analyzing the Roles of Populism, Economic Anxiety, and Other Relevant Factors in the GameStop Stock Surge

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Abstract

At the end of January 2021, the stock price of GameStop (GME) and the volume of daily shares traded were both 20 times the typical numbers. This event, known as the GameStop stock surge, was caused by millions of traders on r/WallStreetBets (WSB). WSB investors frequently expressed sentiments of populism, economic anxiety, religious and quasi-religious behaviors, rational economic investment motivations, and meme culture. I assigned several letter codes to each of the 100 most upvoted posts on WSB (all of which were upvoted by at least 100,000 separate investors). Analyzing the assigned letter codes revealed associations between religious sentiments, Keith “DeepFuckingValue” Gill, and Happy codes, as well as economic anxiety, populism, and Angry codes. This analysis excluded the possibility of rational economic investment motivations or meme culture as significant motivating factors.

Using an analysis of primary source documents, I determined that a combination of populism and economic anxiety was the most significant motivating factor behind the GameStop stock surge. I gained relevant information about trends among the WSB political philosophy and determined the four key formative events of WSB’s political philosophy. I discussed future possibilities for WSB as a relevant economic and political entity on the basis of this information.

Introduction: Defining the Research Question

On January 28th, 2021, the stock price of GameStop (GME) reached \$485, around 20 times the stock’s price at the beginning of the month. The volume of daily shares traded on the 28th was nearly 200 million, almost 20 times as many shares as are traded in a typical day.

Figure 1 shows the daily volume and average daily value of GME before, during, and after the January stock surge (Yahoo, 2021):



The stock's meteoric rise came to be from a forum on the social media website Reddit called r/WallStreetBets (WSB) (Reddit, 2021). Posters, many sharing that they had invested their life savings in GameStop shares, exhorted their fellow Redditors to buy the stock and then hold it. Numerous hedge funds were alleged to have sold more shares short than actually existed. Posters hypothesized that if all the available GameStop shares were unavailable when the hedge funds had to cover their short positions, they would be “squeezed” for huge amounts of money. This could happen if enough investors on the forum chose to buy and hold the stock. WSB investors who had “diamond hands” (the mental toughness to hold through losses and sell only when massive gains are realized) would reach “Valhalla”, a financial heaven with “unlimited tendies”, meaning infinite money, thereby reshaping the world order to punish those profiting off economic inequality and incentivize more ethical future behavior. The exhortations were appealing, and as the stock rose, so did WSB's membership count. The forum reached 10 million users in March 2021, five times its size in January (Asarch, 2021), grew by 3 million users over a single 3 day period (Alcantara, 2021), and is now one of the largest Reddit forums of all time (Front Page Metrics, 2021). Many millions of WSB investors bought GameStop as a result of

these exhortations; an estimated 4,250 (u/goldendust, 2021) invested the entirety of their life savings, known as a “YOLO”.

In the process of these exhortations, GameStop investors expressed numerous religious sentiments¹. Knowledge about the demographics of Reddit users, overwhelmingly young, might suggest high rates of atheist beliefs among GameStop investors. Further complicating our understanding of these sentiments are the rules of WSB: “No Political Bullsh*t”, a sentiment which, having read through over a year of posts, seems to include explicitly religious content. This rule did not seem to elicit widespread compliance; during the stock surge, populism and anger at economic anxiety were on widespread display.

The stock surge, especially as it relates to populist economic activism, is a compelling location for inquiry. While I am unable to conclusively assert the cause of the stock surge using the data currently available, investor exhortations can show us valuable information about the participants in the stock surge. This information can allow us to better understand these investors and the social and political dynamics which influence their views and decisions.

Among those broader social and political dynamics is the issue of economic inequality. Commenters on WSB have expressed frustration at the lack of economic mobility in America, in particular the impossibilities of affordable college and home ownership. Many early GameStop investors evangelized the stock as an unprecedented opportunity to earn the wealth they were excluded from. These GameStop evangelists described the investment opportunity as retaliation

¹ As I use the term in my work, the phrase “religious sentiments” depicts expressions on the forum which fall into three distinct categories. The first is actual religiosity; people could be using religious-style thinking and religious imagery simply because they are in fact religious and hold genuine religious beliefs. The second category is nonreligious people who have adopted religious thinking, behavior, and actions. The final category is nonreligious people who employ religious language but exhibit purely rational thinking behind such imagery. An analysis of publicly available information does not enable us to distinguish between these three groups, since the expressed actions often tell us little about the thought processes behind them. More research is required to determine the frequency of each category of sentiment within the forum. However, there is a commonality among all three: they discuss the issue studied using religious thinking, terminology, behavior, or action. This commonality allows the use of one term to encompass all the sentiments for the purposes of this study. Whether people are genuinely religious, are nonreligious but have adopted religious thinking, behavior, and action, or employ religious language behind purely rational thinking, I describe their (relevant) sentiments using the blanket term “religious sentiments”.

against the rich for their suffering in the 2008 financial crisis. This righteous anger took on a new significance on January 28th, 2021. On the 28th, the stockbroker Robinhood shut off the option for small investors, but not hedge funds, to buy GameStop shares. Robinhood allowed (and in some cases forced) small investors to sell the stock, creating a market panic among small investors. While small investors were losing money, hedge funds were the only entities able to buy the GameStop shares sold on Robinhood, which significantly reduced the losses hedge funds expected to incur. Robinhood, which has indirect business ties to hedge funds which had bet against GameStop, declined to explain their decision, which may have been illegal. Small investors lost millions, turning their anger towards Robinhood and the system enabling Robinhood's behavior. Investment in GameStop was no longer just an economic decision. It became a collective opportunity to punish the wicked and strip them of their wealth.

While we are unable to conclusively determine the cause of the unconventional investment decisions which created the GameStop stock surge, we can explore the motivations most relevant to the actions of the investors and evaluate the effectiveness of decentralized economic activism from a sociopolitical perspective.

To those unfamiliar, decentralized economic activism is when individuals, at scale and without being coordinated by a managed individual or group, make economic decisions in order to facilitate a particular result. This is materially different from, for example, a boycott, which is traditionally coordinated by an organizing body. Collective nonpayment of taxes such that the government lacks the authority to enforce or operate would be another such mechanism (Thoreau, 1864) if individuals, not structured groups or organizers, are behind this advocacy.

The existing literature about the GameStop stock surge most commonly discusses populist frustrations as a motivating factor. Populism as present on WSB is an interest in

depriving the rich and powerful of their wealth, especially those deemed to be immoral, regardless of whether investors are making money through this maneuver. Populism also manifests in more traditional ways: criticizing the power consolidation of wealthy elites, cultivating distrust in the media and the establishment, characterizing a GameStop investment as the will of the people (who oppose the upper class), and so on. In this manner, and the attention that the stock's increases started to bring, investment in GameStop became a genuine form of political participation which may have seemed more effective than other methods available. While economic elites can singlehandedly fund lobbying efforts and media campaigns, average individuals cannot, especially without coordination; in this environment, decentralized economic activism may therefore be the dominant strategy. This could have incentivized stock purchases irrespective of investor confidence in the stock's long-term value.

Economic anxiety is another possible factor. "Relative risk aversion decreases as one rises above the poverty line and decreases significantly for the very wealthy." (Riley & Chow, 1992) Most people struggling to pay the bills would continue to experience difficulty with 5% more money. Doubling their money could be life-changing. If they make a conservative return, lose a large percentage of their investment, or end up flat, it makes comparably little difference in their lives. Meanwhile, wealthy investors already have more than enough to get by. Doubling their money is nice but unnecessary, a 5% gain means plenty of disposable income, and a loss of even a small percentage can be quite significant numerically. The economic incentives for those outside the wealthiest Americans could simply be compelling enough to convince many to buy the stock despite the high risk involved.

Presumably, the most common motivation in investment decisions is a rational motivation to maximize expected value within one's chosen risk-return investment philosophy.

In simpler terms, investors could have bet on GameStop just because they wanted to make money, irrespective of other factors such as religious sentiments, populism, or economic anxiety. In this case, investors would simply be buying the stock because they think others will buy it, or because they believe in its long-term value. If this is the case, discourse around GameStop would be similar to other discourses on WSB.

Another of the most likely potential motivations is the influence of meme culture. As noted in this study's literature review, Redditors tend to be between the ages of 18 and 29-- a key age group involved in the production and consumption of memes. Memes are an important component of the social fabric of WSB. The actualization of memes (the transportation of a meme from cyberspace to manifestation within the physical world) is often well-received on Reddit, including on WSB. An investment in GameStop, which received weeks of media coverage and facilitated massive growth in WSB's user base, could be viewed as the large-scale actualization of a meme.

The spread of religious or quasi-religious activity functions similar to the spread of a meme, though different in content. Religious sentiments may present another alternative to rational economic investment motivations which could be either related to populist anger at economic anxiety or facilitate high-risk investment behaviors due to faith.

In order to study these factors, I analyze the top 100 posts on WSB, which, as I explain in the Research Procedure section, when taken together, have significant explanatory value. For each of the top 100 posts on WSB, I assign letter codes from a set of 14 based on analyses of the contents of each post and its corresponding comment section. I then analyze the data for overall presence of each letter code and for patterns in how the letter codes do and do not correspond to each other.

In order to better understand the political philosophy guiding WSB investors, I analyze primary source information within the posts of the data sample, notes taken on those sources during data collection, and relevant secondary sources. The analysis of WSB investor political philosophy presents considerations relevant to a comprehensive understanding of WSB as a political entity. This analysis allows us to see more of what the sentiments conveyed by WSB investors look like on the forum, and presents a context highly relevant to the data analysis component.

Research Question

There are at least five possible motivating factors behind WSB's facilitation of the GameStop stock surge worthy of evaluation: populism, economic anxiety, religious sentiments, rational economic investment motivations, and meme culture. Among these factors, which were the most significant influences on GameStop's stock surge? How do these factors relate to each other and what can they tell us about WSB investors?

Literature Review

How does economic anxiety relate to populism according to contemporary literature?

We begin by delving into populism as it relates to economic anxiety. When might we see these two attitudes appear together, where might we expect this, and why? This section of the literature review presents valuable context to help us assess any such associations.

Dani Rodrik's work explains why we see economic insecurity and cultural insecurity (often displayed as populist attitudes) together. As Rodrik says, "Globalization shocks... have played an important role in driving up support for populist movements" (Rodrik, 2021). Available evidence suggests that the threat of automation (made more visible by Andrew Yang's candidacy, which may explain his norm-shattering support among conservative and independent

voters) also increases support for populism (Business Insider, 2020). Economic insecurity, especially personal financial insecurity (often related to financial crises) appears to create opportunities for populist behavior.

Rodrik argues economic anxiety unlocks cultural insecurity via four channels (Rodrik, 2021). The first is that antiglobalist policies, espoused by populists, particularly appeal to those in communities hard-hit by imports, which makes voters more open to supporting other populist positions. The second channel is through a heightening of insecurity inherent to economic hardship. Those suffering financially live in a constant state of heightened anxiety which lends itself to cultural insecurity. The third channel is that economic shocks increase political polarization by creating incentives for the opposition party to blame the governing party for the shocks. Economic shocks are best for populists, who love attacking elites regardless of the context. The fourth channel is how these shocks prop up demagogues who provide scapegoats for disaffected voters.

Willis Patenaude agrees with Rodrik's assessment, stating "Economic anxiety is a necessary condition for the populist voting patterns", further adding that it "requires the occurrence or continuation of economic distress or crisis to trigger the populist attitudes of the ingroup" (Patenaude, 2019). Patenaude notes that among populist voters, economic anxiety plays a much greater role, citing a survey of Tea Party supporters: "Tea Party supporters were more concerned with economic than social issues; 78 versus 14 percent". A margin of 64 percent is very significant evidence to support this point. He further backs this up with election data: "In districts suffering from economic insecurity, Tea Party candidates won 9 of 10 races, whereas in districts where economic insecurity was not an issue, they lost all but 3 races". Despite Patenaude's evidence for the influence of economic conditions on populism, he defines it in a

way to include cultural insecurity, to demonstrate that it cannot be avoided in any discussion of right-wing populism. (Patenaude's study excludes left-wing populism, so that while we might expect similar economic attitudes, as seen in the 2016 cross-party support for Bernie Sanders's campaign, he does not provide information on what cultural attitudes we might anticipate among non-right wing populist movements). Patenaude's definition is consistent with every author whose work is included in this literature review.

Patenaude's work is particularly notable for his definition of a populist leader, which transcends left or right wing politics. Patenaude's populist leader operates a personalistic charisma to exercise power based on direct, uninstitutionalized support from large numbers of mostly unorganized followers. This is a near-exact fit for Keith "DeepFuckingValue" Gill, the unofficial leader of the GameStop movement: this is the exact kind of charisma Gill expresses and the exact nature of his supporters.

Yotam Margalit disputes Rodrik's portrayal of populism, arguing that "the empirical evidence put forth to date does not establish that populism is predominantly an outcome of a rise in economic insecurity" (Margalit, 2019) Margalit suggests too much attention is being paid to economic anxiety among the white working class because of the perception that it was what changed the outcome. He cites immigration, which he notes often serves as a proxy for racism, as having more explanatory power, and notes the possibility of cultural alienation from the Democratic Party through feelings of abandonment by the political establishment. Within this argumentative divide are Noam Gidron and Peter Hall, who attempt to bridge it in *The Politics of Social Status: Economic and Cultural Roots of the Populist Right* (Gidron & Hall, 2017). Gidron and Hall argue that subjective social status, not objective social status, is the relevant factor for

this discussion. They suggest that economic hardship can cause changes in subjective social status which could explain populist voting behavior.

Taken together, the general consensus suggests cultural insecurity is an important result of economic anxiety, but not the cause. This evidence suggests a focus on economic anxiety makes more sense than a focus on cultural insecurity in regards to the GameStop stock phenomenon. In the context of WSB, we might apply this focus to consider populism through an economic rather than cultural lens. Doing so, we might expect populism and economic anxiety to have at least some association.

How do the religious sentiments relate to populism?

We next consider populism as it relates to religious sentiments. When might we see these two attitudes appear together, where might we expect this, and why? How might religion and populism have a symbiotic relationship, and how relevant are these sentiments to the (at minimum, facially) atheist domain of WSB? This section of the literature review presents valuable context to help us assess any such associations.

As established, the research consensus suggests economic anxiety serves as a catalyst for populist success. Because of this, and evidence of economic anxiety throughout WSB, we might infer the populist beliefs and religious sentiments expressed on WSB are related. Indeed, in other contexts, religion and populism are often closely intertwined.

The media by which religion and populism connect and appeal to people are well understood. Daniel DeHanas and Marat Shterin state the most common methods by which to connect the two, saying “Religious symbols, tropes, ideas, and the feelings of belonging, difference, and entitlement they reinforce or even generate, can be creatively and selectively used

by populist politicians.” (Dehanas & Shterin, 2018) DeHanas and Shterin provide examples: the good and pure people juxtaposed against the evil and corrupt elite, the country as a “promised land” in which people are being denied their “sacred” rights, and the populist leaders fighting the evil enemies as saviors of the movement, to name a few. In America, many of these examples can be traced back to biblical Christianity.

Andrew Arato and Jean L. Cohen discuss the political ramifications of religious populism. Arato and Cohen make a strong argument against religious populism, claiming that “The logic of populism and politicized religion is antithetical to the underlying principles of civil society and, ultimately, to democracy itself”. Religious populist movements, they argue, “excel in revealing democratic dysfunction” by invoking religious tropes to criticize the establishment as “oligarchic, corrupt, and insufficiently democratic”. Arato and Cohen detail how populists can hijack religious tropes or even entire religious groups as a tool for friend/enemy politics, creating an inherent conflict with the pluralistic ideals of civil society.

They go on to describe the tropes most commonly hijacked:

“Populist logic and rhetoric have an elective affinity with certain religious ideas or tropes. The themes of impending doom, the need to ward off evil others, to purge the people of corrupting blood, of sacrifice, the portrayal of the world as a disaster...” (Arato & Cohen, 2017)

Jose Pedro Zuquete expands substantially upon these ideas (Kaltwasser et al, 2017). Zuquete identifies two distinct interactions between religion and populism: religious populism, where leaders argue political action fulfills a divine will to oppose godless enemies, and sacramental politics, where political action fulfills a secular purpose which becomes morally sacred. In sacramental politics, explicit religion is not discussed, but quasi-religious imagery is used to describe extraordinary promises and popular empowerment via a “redemptive crusade”.

“While populists preach impending doom,” Zuquete notes, “they also offer salvation”, in which “the evil present will give way to a redemptive future”. Through religious images, metaphors, and parables, politics becomes, in Zuquete’s words, “a tool for total change, anchored in myths, rites, and symbols that galvanize group solidarity and give ultimate meaning to the life and destiny of communities.”

Many rhetorical strategies, characterizations, and portrayals central to the intersections of religion and populism have been identified to widespread agreement among scholars. These portrayals and motifs are readily extrapolated to GameStop; many are explicitly referred to in posts on WSB. It is almost impossible, in fact, to read the works of Zuquete, DeHanas, and Shterin, and then miss the exhortations of religious sentiments given form in populism on the forum.

Among the most ubiquitous of these sentiments are portrayals of Keith “DeepF*ckingValue” Gill in a way that almost exactly mirrors Zuquete’s Key Images of the Leader: the Leader as the Prophet, Moral Archetype, Martyr, People, Party, Missionary, and Chosen One. To evoke each of these images upon the Leader, religious ideas are drawn into populist thought (Kaltwasser et al, 2017). Gill, a charismatic GameStop evangelist since 2019, who was launched to wealth and fame by January’s events, and is now followed with a religious devotion, is a natural fit for these portrayals. While it is of note that many leaders might exhibit some of these traits, the natural fit for Gill is still surprising. Many groups preach impending doom, offer salvation, and exploit the tropes and feelings of religion to achieve their goals. The literature here, however, suggests significant commonalities between religious populism and activity on WSB. These commonalities exceed the way in which typical leaders and groups which make use of some of these motifs, ideas, tactics, and feelings might be expected to use of

them, setting an expectation that we might expect, based on this literature, to see substantial overlap between religious and populist content on WSB.

What can we learn about political, economic, and religious attitudes from demographic information about Reddit?

While we do not have the ability to analyze individual users on WSB, we can evaluate demographic information about Reddit overall to consider and contextualize what we might expect on WSB, a subset of Reddit. This information plays an especially relevant role as we consider how religious, political, and economic attitudes might influence WSB user culture and behavior.

Matej Gurkovic, Mladen Karan, Iva Vukojevic, Mihaela Bosnjak, Jan Snajder have created a database of 10,000 Reddit users, then compared Big 5 personality traits across demographics and with the general population. Their most important finding is that the average Reddit user is more open, less extroverted, less agreeable, and less conscientious, and has an average level of neuroticism (Gurkovic et al, 2020). In common usage, conscientiousness is sometimes equated to carefulness and diligence. Taken in the context of that common usage, the finding of Reddit users displaying below average conscientiousness has enhanced relevance to WSB, especially as it relates to literature around Due Diligence (DD) posts. Also of note is their findings that on Reddit, “males are on average younger, less agreeable, and less neurotic than females.”

Thomas Schmidt, Florian Kaindl, Christian Wolff primarily analyze Christianity, Islam, and Occult subreddits, but the best feature of their analysis is a breakdown of Reddit demographics. “Reddit is predominantly used by American male young adults”. 67% of users are male, 64% are between the ages of 18 and 29, over half live in America, and 70% are white. A

majority of users have completed at least some college, but the average Redditor is poorer than the average American. 64% of Redditors made less than \$75,000 per year compared to 56% of Americans (Schmidt et al, 2021).

Atheism dominates religious expression on Reddit, at least in terms of forum membership. r/Atheism has 10 times as many members as r/Christianity and 41 times as many members as r/Judaism. No other religious forum on Reddit boasts numbers close to r/Atheism's membership. And while accusations abound that Reddit is a haven for the far right, just 19% of users lean to the right of center at all. In comparison, 38% of users are moderate and 43% of users lean left. This data raises questions about media claims that WSB is an alt-right forum.

Taken together, this information is instructive: Reddit users are more likely to be male, more likely to be moderate or left-leaning, more likely to be atheist, more likely to experience economic anxiety, and more likely to express disagreement and take risks than the general population. This supports some of what we can observe about WSB, and the vital context it provides helps us anticipate potential trends among users.

What can existing literature tell us about GameStop, and more specifically, WSB?

Beyond the relevant context to WSB, some literature exists which can directly tell us about WSB, or even the GameStop stock surge. This information is vital to consider as we assess the space among the literature for this study and consider information relevant to WSB culture and investor political philosophy.

Sources on GameStop cover a variety of related topics to establish important information. Ahbinav Anand and Jalaj Pathak use a large trove of numerical data to conclusively establish that the GameStop short squeeze was caused by retail investors on r/WallStreetBets. Anand and

Pathak find that “both the tone and the volume of discussions on the subreddit r/WallStreetBets had significant predictive associations with the GME return, volatility, and put-call ratio” (Anand & Pathak, 2021). Cheng Long, Brian Lucey, and Larisa Yarovaya expand on this, establishing the dominant sentiments among WallStreetBets comments which seem to collectively influence the market. They found substantial “fear”, “sad”, and “surprise” sentiments in a text analysis done after the Robinhood shutdown (Long et al, 2021).

Usman W. Chohan details a popular theory about the motivations of GameStop investors:

“The events that surrounded the short squeeze of various downtrodden stocks such as GameStop (GME) allude to a counter-hegemonic financial effort, with small scale investors pooling in to sabotage the short positions of large Wall Street players such as hedge funds. [Chohan’s paper] frames these events in terms of public reprisal for the 2008 Global Financial Crisis and public contempt for insular financial private interest” (Chohan, 2021).

Chohan also details Robinhood’s actions harming small investors and contextualizes them in relation to a financial hegemony of the wealthy:

“On January 28th, 2021, GameStop shares opened even higher in pre-market trading, reaching a high of \$500. However, at approximately 8:00 AM EST, Robinhood delisted GameStop, AMC, BlackBerry, and Nokia from its trading platform, thus creating a counter-counter-hegemonic restriction; where users could no longer open new positions in the stock, even as they could close existing positions. A minor panic among subredditors ensued... There were other ebbs and flows in the price thereafter, which the major broker (Robinhood) sought to control.”

Chukuwuma Dim extensively establishes that nonprofessional social media analysts are on average good predictors. Dim states “on average, SMA [nonprofessional social media investment analyst] beliefs are informative about future abnormal returns and earnings surprise” (Dim, 2020). Daniel Bradley et al specifically discuss this in relation to r/WallStreetBets, finding that “both WSB posters and users are skilled”. The study finds exceptional returns from WSB Due Diligence posts, noting “The cumulative one-quarter return following buy DD recommendations exceeds 6%” (Bradley et al, 2021). Tim Hasso et al analyzes average demographics of GameStop investors, finding “Investors who traded GameStop are more likely to be male, younger, less experienced, and have a history of engaging in risky trading, including high-volatility instruments and lottery-like stocks” (Hasso et al, 2021).

In sum, the literature available provides a solid understanding of the relations between religious sentiments, economic anxiety, and religion. It helps us reconcile religious sentiments with atheism and understand more about the average users behind those sentiments. It details what is currently understood about the GameStop phenomenon and contextualizes the sociopolitical situation under which it has occurred. The relatively small amount of information available through the literature makes it clear that there is significant potential for exploration in the area of the research question.

Research has established that actions on WSB have caused the GameStop stock surge. This study will investigate the role the religious sentiments, populism, and economic anxiety have played during the issue.

Hypothesis

There are at least five possible motivating factors behind WSB’s facilitation of the GameStop stock surge worthy of evaluation: populism, economic anxiety, religious sentiments, rational

economic investment motivations, and meme culture. Among these factors, which were the most significant influences on GameStop's stock surge? How do these factors relate to each other and what can they tell us about WSB investors? My hypothesis is that a high percentage of the most upvoted 100 posts on WSB will contain sentiments of populism and/or economic anxiety in the posts or comments, which if true would support these sentiments, and through them, decentralized economic activism, as a significant motivating factor behind the GameStop stock surge. I expect that populism, economic anxiety, and religious sentiments will be expressed in many of the same posts due to the relationships between them. I hypothesize that rational economic investment motivations and meme culture have, at best, limited explanatory power in relation to the GameStop stock surge.

Research Procedure

In order to answer my research question, I conducted an analysis of the most upvoted 100 WSB posts of 2021. While I did this in order to isolate posts made during or after the GameStop stock surge, interest in GameStop was so great that all 100 of the top 100 posts are the same as the top 100 posts of all time. There is a question of the exact link between upvotes on a WSB post and purchases of GameStop shares. More research is required to determine the exact nature of the link, but the information currently available does warrant research predicated on the assumption that this link exists in a relevant form. Specifically, as the numbers of upvotes on WSB posts increased, the number of WSB users exponentially grew in a manner closely tracking the price of GameStop shares (Alcantara, 2021). Whereas the number of users, one proxy for user engagement, is unable to inherently inform us of the beliefs of those users, the content of upvoted posts and comments on those posts, another proxy for user engagement, may do so. On the basis of this connection, I assert that the content of these posts can facilitate a more

comprehensive understanding of WSB investor behavior. An analysis of the top posts can reveal a large amount of information about general trends on WSB. The astonishing number of upvotes on some of these posts allows us to infer a very high level of popular interest. The most upvoted post on WSB, which is the second most upvoted Reddit post of all time (Baer, 2021), has over 425,000 upvotes, which is 73.4% of the entire population of Wyoming (census.gov, 2021). The top 100 posts represent the ideas that received the broadest support and inspired the highest engagement among investors. The enthusiasm demonstrates a high level of significance worthy of study and approval ubiquitous enough to generalize across the forum. Notably, most of the top 100 posts are on January 27th- February 1st, with most of the rest around GameStop-related dates, even though WSB is 10 years old and is about a general investment strategy generally unrelated to specific stocks. GameStop facilitated unprecedented growth by engaging many more users than WSB typically engages.

I spent 10 minutes per post reviewing the post and comment content to assign letter codes and take notes. I assigned a P code to identify populist sentiments and an NP code to identify non-populist political sentiments. The NP code was used in any situation where there were clear political sentiments not aligning with the criteria for populism. I assigned D for Democratic, R for Republican, and N for nonpartisan. I assigned an EA code to identify sentiments of economic anxiety. I assigned an RS code to identify religious sentiments. I assigned a DFV code to posts by or posts about Keith “DeepFuckingValue” Gill. I assigned a CP code to posts by or about WSB “cult personalities” Ryan Cohen, Mark Cuban, and Elon Musk. I assigned an M code to meme posts and non-meme posts containing substantial levels of meme content. I assigned a mood code to every post based on common trends in the comments: H for happy, S for sad, A for angry, F for fearful, SP for surprised, and NS for not significant. In addition, I took notes on the

posts. These notes provide relevant context about the posts, highlight examples of the trends relevant to this investigation, and pull a few quotes that most effectively highlight the broader trends and provide the most clear context. Detailed information on the criteria used to assign the codes and examples of content noted in the process of assigning the codes can be found in Appendix B.

Results

Figure 2 details the results most often referred to in a table, while they are written out below by category. Figure 2 details how many posts shared attributes with each other attribute. For example, the intersection of EA and P indicates how many posts shared the EA and P attributes, and the intersection of EA and EA indicates how many posts contained the EA attribute in total.

Figure 2:

	RS	EA	P	D	R	CP	DFV	M	H	A
RS	12	1	4	1	0	2	9	2	9	1
EA	1	13	12	2	0	2	1	5	2	10
P	4	12	49	5	2	5	4	13	12	28
D	1	2	5	5	0	1	0	1	2	3
R	0	0	2	0	2	0	0	1	1	1
CP	2	2	5	1	0	7	0	3	3	1
DFV	9	1	4	0	0	0	22	2	13	1
M	2	5	13	1	1	3	2	30	13	6
H	9	2	12	2	1	3	13	13	47	0
A	1	10	28	3	1	1	1	6	0	31

Results Related to Populism Codes

49 of the top 100 posts received populism codes, and an additional three posts received non-populist political codes, meaning more than half of the posts were political and almost all political posts were populist. 41 of the 49 populist posts and all three of the non-populist political posts were nonpartisan, and of the partisan posts, 5/7 received Democrat codes. 13 populist posts were also tagged² for memes, 12 populist posts were tagged for economic anxiety, 4 populist posts were also tagged for religious sentiments, and 4 posts received the DFV tag. The broadest mood trend among the populist posts was that 28 of the posts received Anger mood codes.

Results Related to Economic Anxiety Codes

13 of the top 100 posts were tagged for economic anxiety. Of these posts, all but one were also tagged for populism, but only one post was also tagged for religious sentiments. Most economic anxiety posts were nonpartisan, except for one which received a Democrat code. Just one economic anxiety post received the DFV code. Of the 13 economic anxiety posts, 10 got the Anger mood code.

Results Related to Religious Sentiment Codes

12 of the top 100 posts were tagged for religious sentiments. Of these posts, 75% (9/12) also received the DFV tag, and two other posts received the non-DFV cult personality tag (the posts in question highlighted Mark Cuban and Elon Musk). Among the religious sentiment posts which also received a DFV code, 8/9 posts got the Happy mood code. Just one post tagged for religious sentiments was unrelated to any cult personality figure, including DFV. Just one post tagged for religious sentiments was also tagged for economic anxiety.

Quantitative Data Analysis

² When describing my results, I use the word “tag” as a synonym for “code” and “tagged” as a synonym for “coded”.

Two sets of associations appear quite strongly in the data: an association between the religious sentiments, DFV, and the Happy tag, and a separate association between economic anxiety, populism, and the Anger tag. The posts containing religious sentiments almost all received DFV tags and Happy tags. Almost none of those posts received economic anxiety, populism, or Anger tags. Meanwhile, the posts containing economic anxiety almost all received populism codes and Anger codes. Almost none of those posts were tagged for religious sentiments, DFV, or a Happy mood code. The data suggests two different processes are at work: one in which religious sentiments and a happy mood connect with DeepFuckingValue, and one in which the circumstances of economic anxiety and populism stir up anger among investors. From this point on, I will identify these processes in shorthand by their most important elements: DFV Religious Sentiments and EAPA (Economic Anxiety and Populist Anger) posts. DFV Religious Sentiments and EAPA posts operate as entirely separate processes, with the one substantial commonality being that they both receive immense popular support on WSB. (The dichotomy between these two types of posts highlights a notable trend among mood codes: the only ones commonly identified are happiness and anger, suggesting that facilitating those emotions may be a more effective way to engage users).

Can available evidence exclude alternative hypotheses?

The data also reveals why it's important to focus on DFV Religious Sentiments and EAPA posts: the hypotheses not involving these categories are unsupported by the evidence. Absolutely no data in the set points to a rational investment strategy based on expected value, risk tolerance, or even blind numerically supported optimism. It would be highly implausible to assume investors are not interested in making money, but no available evidence suggests financial profit is investors' primary motivation behind investment.

There is a similar lack of evidence suggesting that the memes among the top 100 posts had a unique ability to induce purchases of the stock. Research into WSB makes it clear that WSB investors derive enjoyment from memes. Some WSB investors may even assign some amount of financial value to their consumption of the memes and on that basis, make high-risk financial decisions in the hopes of becoming entwined in the meme culture. This entwinement in the meme culture allows users to entrench themselves inside the community. Outside of the most invested individuals, the meme culture which has developed inside WSB functions to establish a sense of community which motivates the group to collectively hold stonks. When a particular stonk gains popularity through the social media advocacy of its ardent supporters, that stonk becomes a meme stock. Memes are also often used as the target medium by which Redditors seek to articulate economic or political messages (to the extent allowed) on WSB. It is clear that in the sense of the broader phenomena which guide WSB, the processes underlying meme culture present an essential piece within the forum's system. However, the meme usage during the GameStop stock surge was similar in content, tone, and user engagement to meme usage on WSB before and after GameStop, and no available evidence suggests memes were used differently in an influential manner. As usual, memes were used as a response to relevant events, and as usual, they articulated perspectives which were comedic, persuasive, or both. Data from the top 100 WSB posts suggests meme production and consumption may simply be a popular way to cope with one's personal or a community's collective economic anxiety.

According to the data, the motivations most significantly contributing to the GameStop stock surge are most likely to be connected to either DFV Religious Sentiments or EAPA posts.

To what extent do DFV Religious Sentiments relate to decisions to purchase GameStop?

People's adoration towards DFV has relatively little to do with decisions to purchase the stock. Engagement with DFV in the forms of posts and comments is largely from investors who have already taken a position in GameStop. We can infer this because the rhetoric of DFV-adoring investors is centered around holding their positions as opposed to taking out new positions or increasing their positions. After every DeepFuckingValue "GME YOLO update", thousands of supporters comment "IF HE'S STILL IN I'M STILL IN". This is different in substance than if those commenters were saying "If he's still in I'll buy some of the stock". The specific "IF HE'S STILL IN I'M STILL IN" sentiment appears to instead be an expression of devotion and a method through which WSB investors engage with their community. Whatever the exact motivation behind the devotion expressed here may be, the wording of the comment "IF HE'S STILL IN I'M STILL IN" can be semantically differentiated from exhortations about opening one's original positions in GameStop.

Going Beyond Numbers: Analyzing The Political Philosophy Guiding Investor Behavior

An analysis of the investors' political philosophy provides further evidence suggesting EAPA posts are a more significant motivating factor in the GameStop stock surge than DFV Religious Sentiments. To explore this political philosophy, I analyze primary source information within the posts of the data sample, notes taken on those sources during data collection, and relevant secondary sources. My analysis of WSB investor political philosophy is essential to a comprehensive understanding of WSB as a political entity, beyond the considerations presented in the purely quantitative data. This analysis allows us to see more of what the sentiments conveyed by WSB investors look like on the forum, and presents a context highly relevant to the data analysis component. The establishment of this political philosophy is the main

differentiating factor between GME and other WSB investment plays which lacked the necessary scale to disrupt the global financial system.

What can we learn about GameStop investors from analyzing their political philosophy?

A key obstacle to interpreting the political philosophy of GameStop investors is that technically, political discussion is banned on the forum. This rule is relaxed when such discussion is both directly relevant to a specific investment strategy and not being used in pursuit of a separate political narrative. The GameStop stock surge offers us, therefore, a rare opportunity to learn about this political philosophy. The widespread news coverage and “hedgies versus the people” dynamic established the extent to which everyday people are deprived of meaningful economic mobility in a way that motivated many politicians from across the political spectrum to engage with the issue. The political engagement was relevant to investors, and is featured in many of the top 100 posts. Many more posts show widely supported, but nonpartisan populist sentiments.

To understand the views GameStop investors hold, we must also understand the views they do not (collectively) hold. A prominent media narrative from the beginning of the GameStop stock surge was that WSB investors were Trump supporters (Cillizza, 2021)³.

The most substantial evidence repudiating the common media comparison between GameStop investors and Trump supporters is that the data suggests GameStop investors lean Democratic (to the extent that a forum which has banned politics can exhibit partisanship).

³ Most of the more extreme claims were found to have been fabricated (r/wallstreetbets, 2021) (Fact Check, 2021), and many criticized pieces not found to have been fabricated are no longer online as of November 30th, 2021. This narrative does not appear to have ever been backed by any substantial evidence. While it is possible some individuals with those views may have invested in GameStop, multiple pieces of evidence from the top 100 posts have established racist, white supremacist, neo-Nazi, and related alt-right views are not common on the forum. No posts articulating these views received enough upvotes to reach the top 100 and zero comments articulating these views were identified within the top 100 posts.

Among the seven posts with a partisan political lean in the top 100, five leaned Democratic and only two leaned Republican. Notes on the two Republican posts reveal a weaker consensus and lower level of enthusiasm than would be expected from an ardent group of Trump supporters:

On “Congress might do something for once”:

“The image is a letter from Rep. Paul Gosar, among the principal Jan. 6th election objectors, requesting an investigation by the Attorney General into anticompetitive behavior from Robinhood on the basis of its connections to Citadel and Melvin Capital. Surprisingly, commenters do not express support for Rep. Gosar despite his action to their benefit.”

On “Fake News”:

“Redditors mock a news segment titled ‘Retail Traders Lose Faith In GameStop’. Some make Trump jokes about the post’s ‘Fake News’ title, while others openly express support for him. Many people express apolitical sentiments and some express support for Bernie Sanders.”

Among the Democratic posts, the Democrats in question are viewed more warmly than Trump and Gosar in the Republican posts, and no substantial Republican presence was identified in the Democratic posts. Taken together, this implies a substantial Democratic lean among GameStop investors. Despite the Democratic lean, the high level of nonpartisanship on the forum does not justify defining WSB’s political philosophy according to partisan ideology; we can instead attribute it to a broader trend on WSB of opposition to racism. Given the overall prevalence of racism on Reddit (Newcomer, 2020), this opposition to racism is an important aspect of WSB’s political philosophy.

Why are many WSB investors opposed to racism?

The framing around this opposition to racism would suggest that at least some of the investors, whether or not they may be opposed on moral grounds (further research would be required to determine the levels of WSB's opposition to racism on moral grounds), are willing to oppose racism on an economic basis: racism is an obstacle to realizing economic mobility. There are many discussions within the top 100 posts on WSB which discuss the pragmatic concerns of racial and cross-partisan unity as necessary precursors to successful intraclass solidarity. User u/SmalltimeDog states as much explicitly, garnering 1,100 upvotes:

“Thats what it is, they get us angry about race, sex, ordination and gender (all important issues) but the bigger fight is a class one. Some hick from West Virginia has more in common with a person living in the hood than they do with the white hedge fund manager but they don't want anyone to realize where the fight should be.” (u/SmalltimeDog, 2021)

u/SmalltimeDog is using the word “they” to refer to wealthy and powerful elites in control of the media, government, and financial system. Their reference to an example West Virginian is meant to evoke an image of a poor white individual, while their reference to “a person living in the hood” is meant to evoke an image of a poor nonwhite individual. The comment seems to be a direct appeal to individuals who might hold prejudices in the mentioned areas. u/SmalltimeDog seems to seek to establish racial unity by suggesting that racial division is a method of manipulation used by the elites. The solution, therefore, is to form intraclass solidarity to take the fight to the rich.

A dialogue between u/ObnoxiousTwit and u/BearcatDG (r/wallstreetbets, 2021) demonstrates the prioritization of economic action and class solidarity above racism, cross-party animosity, and other common prejudices:

u/ObnoxiousTwit:

“This has been the single most galvanizing incident that has exposed the complete corruption at the highest levels of Wall Street. It has shown who really runs the show now that they're on the losing end. To see the likes of Ben Shapiro and AOC (among many other disparate comparisons) agreeing on something just goes to show you how unifying this issue really is. The absurdity of it all is almost comical if these people didn't wield the power that they do. They're happy to let us fight our little lib v con, gop v dem so long as they get to control how and where the money flows, unencumbered by the regular rule of law that only applies to us plebs. But this - this has exposed them. THESE are the people that we need to take action against. THESE are the parasites on our society that have been leaching off the backs of hard working Americans, struggling to make ends meet just to pay rent or debt or student loans. THESE are the people that offer nothing to society but gain the most. How on earth are we supposed to pick ourselves up by our bootstraps if these fuckers are pulling strings being the scenes to keep us down? If ever there was a time for a Howard Beale⁴ moment, it is right fucking now.”

u/BearcatDG:

“It's never been white vs black. It's never been Jewish vs Gentile, never been east vs west, never been republicans vs Democrats. The real fight is and always has been rich vs poor. Haves stepping on the necks of the have nots because “they got theirs”. If you're rich because you strapped on your big boy panties and worked from the bottom up, good on ya. But that just ain't what happens anymore. You get rich and powerful by kissing corporate America's ass and playing the zero sum game.”

⁴ While we cannot know for sure, since u/ObnoxiousTwit has not elaborated, the reference to Beale most likely refers to the famous quote “I'm mad as hell, and I'm not going to take this anymore!”

The racism-opposed cross-party intraclass solidarity these sentiments demonstrate is instructive, as is the way these investors view themselves: “struggling to make ends meet just to pay rent or debt or student loans”, and the way the investors view the wealthy: “leaching off the backs of hard working Americans” and “unencumbered by the regular rule of law that only applies to us plebs.” This exchange, in addition to similar quotes by many other users, demonstrates a long-standing axe to grind with the financial and political elites who had previously deprived GameStop investors of economic opportunity. This populist anger, built upon the intraclass solidarity users have sought to facilitate, has played a key role in the development of the political philosophy of WSB investors.

How has WSB’s political philosophy been influenced by investor perceptions of their enemies?

One such comment portrays the issue as “people vs corp[orations]” to over 2,000 net upvotes (r/wallstreetbets, 2021). Many others express anger at firms Robinhood, Citadel, and Melvin Capital for their roles in facilitating what researcher Usman W. Chohan calls a “counter-counter hegemonic restriction” (Chohan, 2021). In a comment on the post “ CLASS ACTION AGAINST ROBINHOOD. Allowing people to only sell is the definition of market manipulation. A class action must be started, Robinhood has made plenty of money off selling info about our trades to the hedge funds to be able to pay out a little for causing people to loose money now”, user u/gunshotaftermath states the following:

“A lot of people don’t know this but this is EXTREMELY important. Robinhood makes about [half of its revenue](#) from flow through to the MASSIVE hedge fund Citadel Securities. Citadel is also the firm that has been [funding Melvin capital](#) (the firm who started the shorts in the first place) in the last few days, in the billions, to help them cover shorts. Yesterday rumors

started that Melvin was continuing to buy more shorts, I knew they were about to change the rules. Both firms stand to lose a lot of money from this, or walk out with one of the most brazen robberies in history. Best part? The founder of Melvin capital, [Gabe Plotkin](#), worked for Citadel when he founded Melvin. (Fun fact, Plotkin was just in the news last month for buying two new homes in Miami Beach for \$45 million!) They are about to rob the American people of billions and have been colluding in the highest level and blatant market manipulation. They figured they'll pay a few million in fines, if that, and make billions off of the people. Fuck Gabe Plotkin, Melvin capital, Citadel, and Robinhood.” (r/wallstreetbets, 2021)

Melvin Capital, Citadel, and Robinhood have denied the allegations against them. To this end, Citadel CEO Ken Griffin stated under oath that nobody at Citadel communicated with Robinhood about doing anything that would prevent small investors from buying shares of GameStop (McEnery, 2021). However, internal Slack messages unearthed during litigation have provided new support to WSB investors' theories (Celarier, 2021). A set of communications suggested that Citadel planned to limit payment for order flow on GameStop shares, a practice which could have incentivized interference by Robinhood and therefore unlawfully manipulated the stock's value. Because these communications seem to contradict Ken Griffin's sworn testimony, meaning Griffin may have committed perjury, the hashtag #KenGriffinLied trended on Twitter (McEnery, 2021). A January 31st, 2021 WSB post in which commenters call for Griffin to be sent to “Prison”, “JAIL”, “DUNGEON”, and “Gulag” spawned the nickname “Shitadel” (r/wallstreetbets, 2021), which has subsequently been featured in many memes criticizing Griffin and his company. As legal proceedings and investigations continue, it would be unwarranted to speculate on the actions of these individuals and entities on January 28th, 2021, except to note that WSB investors consider the evidence supporting their theory of events persuasive, suggesting a widespread view of Citadel and Robinhood as morally problematic.

WSB anger directed at Robinhood may supersede economic investment motivations, but those motivations seem to remain at least a somewhat relevant consideration for plenty of WSB investors. Investor u/LemonPoopyDumpling earned 12,000 net upvotes when they stated “This just makes me more eager to fuck them over. Fucking robinhood joining in now we still gonna 🚀🚀🚀 [the rocket emoji indicates financial profit]” (r/wallstreetbets, 2021). u/LemonPoopyDumpling’s phrasing indicates financial motivations as a secondary consideration, while [financially] “fucking robinhood”, a crude depiction meant to indicate asserting one’s dominance through the infliction of significant financial losses upon Robinhood, is the top priority. WSB investors have taken extensive action, both online and in real life, to harm Robinhood’s reputation in retaliation for alleged financial harm Robinhood caused them.

There appear to be four key formative events of the WSB investor political philosophy: the counter-counter-hegemonic restriction involving Robinhood, Citadel, and Melvin Capital (noted above), the media misinformation during and after the GameStop stock surge, the 2008 financial crisis along with economic anxiety caused by it, and anger at the deprivation of economic mobility exacerbated by the COVID-19 pandemic (but present before it). User u/lucky_ducker sums up investor sentiment in their statement “Yeah, this is no longer even about GameStop at all.” (r/wallstreetbets, 2021)

How has media misinformation contributed to WSB’s political culture?

Widespread media misinformation during and after the GameStop stock surge served to reinforce investor perceptions of a battle between small investors and powerful elite institutions. WSB investors remain angry at the media for misrepresenting their interests (r/wallstreetbets, 2021), claiming that Melvin Capital exited its position before it did (r/wallstreetbets, 2021), and

claiming Melvin Capital acted legally despite the lack of sufficient supporting evidence to definitively conclude as much. Investors exhibit particular vitriol towards the media outlet CNBC on the bases that the outlet ran content attempting to persuade investors to sell their GameStop shares and that CNBC host Jim Cramer mocked WSB investors on air.

This distrust of the media has both produced memes mocking Cramer and facilitated a less comedic distrust of outsiders and investors offering views that compete with the more established beliefs. People who disagree with the prevailing political philosophy or investment strategy are often criticized as “hedgies” and “bots” and are often aggressively downvoted. Since Reddit users have a social incentive to maximize total upvotes, known as “Reddit Karma” (Reddit Help, 2021), dissenters may be disincentivized from speaking up. This is the exact type of climate which facilitates “discussions among likeminded people repeating the same themes, opinions, and attitudes, which accomplishes nothing” (Lundmark and LeDrew, 2019). This incentive structure may have influenced the direction of political and economic discussions through its exclusion of dissenting opinions. In particular, this could have contributed to an amplification of populist views once those views became dominant on the forum.

Which economic policies and non-economic actions do WSB investors hope to see from the government?

WSB investors have not expressly enumerated the economic policies which they support (or, if some investors have done so, their dialogue did not gain enough traction to be included in the top 100 posts). A potential explanation for this lack of detail in regards to specific policy goals is the WSB ban on politics. In typical situations, any political sentiments are banned. Even in a unique situation such as the GameStop stock surge, users had reason to believe they would

be penalized for partisan political sentiments and thus tend to frame their policy interests in the context of GameStop and a broader, loosely defined, nonpartisan economic framework. The necessary economic lens through which political issues are considered largely excludes trends among investor political philosophies untethered from an economic context.

There are, however, a few general trends among the financial difficulties that appear to drive WSB investor frustrations. A general self-perception as “poor” or “broke” is common, with the most common justifications behind the self-perception being student loan debt, financial barriers to homeownership, and medical debt. WSB investor u/TheBostonCorgi, whose comment has earned over 12,700 net upvotes, does not go into specifics, but does provide a simple explanation of how economic anxiety contributes to investment decisions:

“Losing my investment won’t change my life. Holding could permanently change my life for the better. So I hold.” (r/wallstreetbets, 2021)

The replies to u/TheBostonCorgi’s comment of u/Dahks and u/IneffectiveDetective, respectively, support u/TheBostonCorgi’s explanation:

u/Dahks:

“Precisely this. I have 2k invested, if I lose it? I’ll still be poor. If I get paper hands and sell to get extra 2k? I’ll still be poor. But if we get to, as a sum of individuals who don’t work together but really like the stock, fucking destroy the hedge fund at their own game?

There’s no better way to win money than fucking with the rich. There’s no better way to lose it either.” (r/wallstreetbets, 2021)

u/IneffectiveDetective:

“Yep. If I lose it, I’m still a debtor. If I hold, I could be free.” (r/wallstreetbets, 2021)

The general consensus appears to be that in the absence of government policy providing the economic mobility WSB investors feel they deserve, they have decided to use the tools of private investment to pursue these goals. Many investors, similarly to the posters above, had very little to lose financially, to the point where traditional investment strategies would simply be unable to meaningfully impact an investor's level of economic mobility. These investors were motivated, despite the high risk, by the appealing prospect of "be[coming] free".

WSB investors have indicated support for a few policies, such as monetary policies that increase the value of assets in the stock market, but their most enthusiastic support for an economic policy is likely for the stimulus checks, which were widely supported as beneficial to the recipients and also the overall economy. Many WSB investors reportedly YOLOed their payments into stock or options purchases of stonks (r/wallstreetbets, 2021) including but not limited to GameStop.

In some cases, there is a clear consensus on non-policy governmental action. On the issue of Robinhood, Citadel, and Melvin Capital, many WSB investors have created or supported petitions, lawsuits, and other initiatives with the goal of financially penalizing the involved companies or incarcerating their executives (such as the aforementioned users hoping to see Citadel CEO Ken Griffin in "Gulag"). WSB investors seem to view the treatment of the financial elite in the aftermath of the Robinhood shutdown as analogous to the low level of accountability among the financial elite during the 2008 financial crisis. Many users describe how they suffered from the 2008 economic damage and their anger at the perpetrators, who they feel deserve to face justice in some form, whether legal or financial. The best way to understand prevailing WSB investor sentiment around the 2008 financial crisis is to read u/ssauronn's "Open Letter to Melvin Capital, CNBC, Boomers, and WSB", which was upvoted by over 143,000 people. The

letter summarizes the experience of growing up in the 2008 crisis and seeing “the enormous repercussions that the reckless actions by those on Wall Street had in my personal life, and the lives of those close to me.” The letter goes on to describe extreme poverty u/ssauronn argues Wall Street elites caused and criticizes those elites for their complete disregard for the law and the harm they caused to millions of working class people. u/ssauronn commits to going all in not to maximize profit, but punish the people that caused their suffering.

In his letter, u/ssauronn demonstrates the deep level of conviction towards justice and the personal suffering that motivated investors to risk everything. u/Gnarly_Dan perfectly encapsulates these ideas in a reply, saying “This is the first time in my 30years of life I’ve ever seen ws [Wall Street] feel the same pain and worry my mother felt. IM ALL IN TOMORROW. This is personal.” (r/wallstreetbets, 2021).

How do WSB investors perceive the American economic system and which actions might these investors potentially take in the future?

In the context of u/Gnarly_Dan’s goal, WSB investors were successful. Investment in GameStop during the stock surge appears to have been highly effective at instilling fear among the financial elite. However, Robinhood’s “counter-counter hegemonic restriction” prevented investments in GameStop from facilitating long-term structural change. The CEO of Interactive Brokers has admitted that, had the Robinhood restrictions not prevented WSB investors from purchasing GameStop shares, the value of each share would have gone so high that the hedge funds betting against GameStop would potentially all have gone bankrupt. The wealth redistribution this would entail could have been one of the largest single-day wealth redistributions in American history. Furious commenters fill this thread, with some even calling

for “guillotines” (r/wallstreetbets, 2021). Numerous WSB investors note the cross-party agreement around being “mad af” and “eating the rich”:

u/BadLamont:

“I was just coming here to note that this might be the one thing we can all agree on... AOC, Rashida Talib, Bernie, Ted Cruz, Don Jr, Mark Cuban, Robert Reich, Elon Musk. You can neither eat the rich or value the free market without being mad af at the bastards right now.” (r/wallstreetbets, 2021)

u/_amethyst:

"This subreddit this week is the first time I've seen people on both sides being not just cordial, but super agreeable, because we've finally found something that we all agree on: FUCK THE BILLIONAIRES. FUCK THE HEDGE FUNDS. AND EAT THE FUCKIN' RICH. I'm pretty damn far left, but if you're on the right and you agree that our biggest common enemy is the wealthy, then we can set aside our differences for a hot minute to tackle the biggest enemy before we work out our other disagreements." (r/wallstreetbets, 2021)

Famed economist Robert Reich tweeted that “The system is rigged”, a message which WSB investors amplified (r/wallstreetbets, 2021). It is unclear if WSB investors have reached a consensus on which actions are necessary to remedy the lack of economic mobility. Most investors seem to support continued financial and political advocacy to restore economic mobility. However, in a thread within one of the top 100 posts, a prominent contingent of users speculates on the possibility that the system may have passed the point of no return. This argument proceeds as follows: if the rich make the rules of investment, and can change them whenever the working class makes too much money, the only significant wealth-building option for the poor is functionally useless. The poor, further constrained by low wages, unaffordable

higher education, expensive healthcare, and unaffordable housing, face significant barriers to simply get by, making upward mobility nearly impossible. u/thesupremepickle refers to this economic system as “neo-feudalism” (r/wallstreetbets, 2021). u/FEMA_Camp_Survivor describes the political reorientation they expect as a result:

“If retail gets cutout of trading activities, America will essentially be a feudal society. The wealth will be in fewer hands and continue to serve the interests of the few at the expense of the many even more so. We might all be socialists then.” (r/wallstreetbets, 2021)

Among those who agree with the assertion that the extreme inequality of 2021 is comparable to medieval feudalism, a few hundred upvoted a comment by u/UnusuallyBadIdeaGuy (whose username is particularly interesting in the context of his comment): “That's how you get an actual guillotine style revolution” (r/wallstreetbets, 2021). Investor u/Barkey922 replies that “we all would... be along for the ride on that one” (r/wallstreetbets, 2021). Investor u/01cecold calls the potential revolution “French Revolution: 2.0” (r/wallstreetbets, 2021). Most of these discussed actions seem to be hypothetical. While many people upvote assertions about the neo-feudalist state of affairs and those discussing the potential of a second French Revolution, no further details are provided.

There is, however, one commenter who does propose a specific course of action. u/METAL4_BREAKFST suggests a potential course of action to disrupt the neo-feudalist order:

“Be shame if 300 million people just said fuck you at tax time. They gonna put you ALL in jail? Starve the beast and it will learn” (r/wallstreetbets, 2021)

While the idea of collective tax nonpayment as a form of resistance has yet to gain significant support, it demonstrates an interest in a tangible action which almost every American could participate in. This idea carries significant risk for the participants, which would, in a typical context, suggest it may face widespread resistance to adoption. In a group of 10 million angry investors, many of who YOLOed their life savings into GameStop to send a message to the government, no suggestion of peaceful, collective economic resistance should be written off as nonviable.

Similarly to GameStop, this idea revolves around the collective exercise of economic power to facilitate the restoration of a system supporting economic mobility. Another parallel is in its end goal: ideally, the acts themselves have the power to redistribute wealth from the elites to the people, but even if wealth redistribution is inadequate or unsuccessful, a collective act on this scale can send a powerful message. In that sense, GameStop investments might be comparable to lobbying. A dissatisfied group appears to have used its financial influence to get political decision-makers to pay attention to the group's concerns.

The most strongly supported paths forward on WSB appear to agree on little, but there is substantial support for similar actions to GameStop or via other financial mechanisms. The most common action currently taken is for GameStop investors to "Direct Register" their shares with a company called Computershare (Fries, 2021). Direct Registration is a less convenient method of stock ownership which prevents stockbrokers from profiting off an investor's shares-- and more importantly to concerned investors, prevents those brokers from imposing restrictions on those shares. The use of Direct Registration could increase the resilience of WSB's stock trading if, during a future stock surge, brokers impose counter-counter hegemonic restrictions such as those in the Robinhood shutdown. The motivation behind Direct Registration appears to be a hope that

WSB will be able to take further action to disrupt the neo-feudalist system. If the system continues to crush the people's hopes of economic mobility despite this, one might theorize that enough of WSB's 10 million-plus investors will reach their breaking points and take action to destroy the established neo-feudalist order.

Conclusion

The goal of this research was to determine which of five possible motivating factors was the most significant influence on the GameStop stock surge: populism, economic anxiety, religious sentiments, rational economic investment motivations, and meme culture, and to determine how the factors relate to one another, and what they can tell us about WSB investors. I hypothesized that a high percentage of the most upvoted 100 posts on WSB will contain sentiments of populism and/or economic anxiety in the posts or comments. This hypothesis was correct: over half of the most upvoted posts were tagged for populism, non-populist political views, or economic anxiety. The quantitative data collected from the top 100 WSB posts made two sets of associations clear: one between religious sentiments, DFV, and the Happy tag, and one between economic anxiety, populism, and the Anger tag. The data was able to exclude the rational economic investment motivations and meme culture as potential primary influences, leaving the possibility of either religious sentiments or a combination of populism and economic anxiety as the primary influence.

An analysis of the quantitative data and investors' political philosophy further supported this hypothesis, allowing a combination of populism and economic anxiety as the most significant influence on the GameStop stock surge among the investigated factors. This analysis

found WSB to be racism-opposed, supportive of intraclass solidarity, and slightly Democratic-leaning, but mostly apolitical.

There are four key formative events behind WSB's political philosophy. The counter-counter hegemonic restriction involving Robinhood, Citadel, and Melvin Capital facilitated a particular interest in exacting revenge on those entities, who have come to be, to WSB, representative of everything wrong with the financial system. Media misinformation during and after the GameStop stock surge facilitated a distrust of the media and dissenting opinions that amplified populism on WSB. Economic anxiety in relation to the 2008 financial crisis appears to have set the foundation for a deep level of personal investment in GameStop and a resentment of government failures to respond to working class needs. Anger at the deprivation of economic mobility exacerbated by the COVID-19 pandemic (but present before it) appears to have been the final straw which pushed WSB investors to take action.

Investors express concern about the lack of meaningful economic mobility in America using numerous references to our economic system as “neo-feudalism” and the necessity of “guillotines” or other drastic forms of action. These discussions demonstrate the severity of economic inequality as it impacts working-class Americans. They have thus far appeared hypothetical, and, though further research would be required for more concrete predictions of future investor behavior, future collective action is much more likely to be nonviolent and economic in nature than violent and noneconomic.

Implications

Using this information, we may speculate on the future of WSB as a relevant entity to the American economic and political systems. GameStop investors may lack unity in the context of

electoral politics, but these investors have proven their willingness to take action on their beliefs. With over 10 million WSB investors, the constituency is clearly large enough to be worth appealing to on national issues. (This may explain the broad cross-party interest in investigating Robinhood in the aftermath of the Robinhood shutdown). Politicians seeking success on a national level might do well to engage this constituency on areas of broad agreement, such as legislation supporting small investors, accountability for Robinhood, Citadel, and Melvin Capital, and additional stimulus checks (or universal basic income, which is in a sense stimulus checks but regularly distributed). It is not yet clear if this engagement will occur, or if the theorized benefits would materialize should they be sought using future political capital. The research establishes investors perceived greater effectiveness in decentralized economic activism than other means, and the attention of both elected members of Congress and bureaucratic entities such as the SEC validated these beliefs. Further research would be required to determine the actual, specific effectiveness of decentralized mass investment as a political protest versus other available tactics, whether using GameStop as a use case or otherwise.

Viewing economic policy more broadly, the GameStop stock surge could be viewed as a cry for help from the American people to relevant policymakers. The spectacle around the event publicized the economic anxiety typical Americans face, demonstrated the disadvantages of small investors compared to financial elites in the stock market, and demonstrated working-class American anger at the constraints of the neo-feudalist system. The specific motivations behind the GameStop stock surge suggest two possibilities: either significant policy actions could be taken to alleviate or mitigate the economic anxiety the American people face, or investors will most likely retain their current incentives to fight back against economic inequality via decentralized mass investment.

Appendix A: Definitions of Common r/WallStreetBets Terminology

Note: Many of these terms do not adhere to the literal meanings of the words behind them or have a separate context readers must understand in order to avoid confusion. This is largely because much of the terminology derives from memes. Memes are used on WSB to establish a sense of community: both to provide the emotional value necessary to justify sometimes significant losses and to establish an in-group of which the central community is built around.

A boy in Bulgaria

When testifying before Congress, Robinhood CEO Vlad Tenev refused to answer questions about whether his company had intentionally manipulated the market. He instead recalled his childhood in Bulgaria in a poorly received attempt to garner sympathy from the present Congresspeople. Tenev's statement has been widely used on WSB to mock him or to refuse to answer unrelated questions.

Ape

A self-deprecating term. Investors identify themselves as apes due to their collective and sometimes unsophisticated investment strategies, in order to imply they are unqualified to provide investment advice. The phrase "Apes Strong Together" is a common motto used to demonstrate unity.

Bot

A bot is a computer program which generates automatic comments on Reddit, and on WSB, an insult used to accuse those suspected of hedge fund affiliation or promotion.

Call option/s

A call option is the right to purchase a certain number of shares of a stock at a certain price, prior to a certain date. This investment strategy tends to have high risk and high reward potential.

Citadel Securities

An entity owned by CEO Ken Griffin which executes 43% of Robinhood's trades⁵. Griffin also owns the Citadel Hedge Fund, which owns a \$2 billion investment stake in Melvin Capital⁶. Melvin Capital took out a very large short position on GameStop. Citadel is currently facing a class action lawsuit and an investigation by the SEC. WSB investors in the class action allege Citadel directed Robinhood to freeze trading on January 28th, which if true is an illegal act of collusion and market manipulation. The SEC investigation has reviewed many competition issues related to Citadel but has focused on a business practice called Payment For Order Flow.

DeepFuckingValue

⁵ Fries, Tim. "43% of Robinhood's Q1 2021 Revenue Is from Citadel." *The Tokenist*, 5 May 2021, tokenist.com/robinhood-owes-citadel-43-of-its-q1-2021-revenue

⁶ "Citadel To Pull About \$500M From Melvin Capital Following Bad Short Bet On GameStop." *Markets.Businessinsider.Com*, 21 Aug. 2021, markets.businessinsider.com/news/etf/citadel-to-pull-about-500m-from-melvin-capital-following-bad-short-bet-on-gamestop-1030750303.

The Reddit name of Keith Gill. Also known as Roaring Kitty. DeepFuckingValue was the first investor in GameStop in anticipation of the stock surge. He has been the most passionate evangelist of the stock, and in the process, has turned \$53,000 into an estimated \$48 million.

Degenerate

Another self-deprecating term. The Google Dictionary definition perfectly matches its use context on WSB: “having lost the physical, mental, or moral qualities considered normal and desirable; showing evidence of decline.”⁷ Investors jokingly refer to themselves as degenerates.

DFV

See DeepFuckingValue. DFV is a commonly used abbreviation.

Diamond Hands

On WSB, the purported hardness of one’s hands symbolizes the mental toughness to hold through gains or losses in order to maximize gains. Diamonds are among the hardest materials in the world, so a user with diamond hands is said to have a very strong resolve. For holding through extremely large losses, users are sometimes said to have “diamond balls”, a variant.

Downvote

Reddit’s system, like most social media sites, allows users to indicate approval of a post via “upvotes”, which resemble Facebook likes. However, users can also “downvote” a post to indicate their disapproval. The number of downvotes is subtracted from the number of upvotes.

Due Diligence (DD) Posts

DD posts are posts by WSB investors arguing to buy or sell (almost always buy) a stock based on their research. Evidence suggests these posts are capable of driving purchasing behavior.

Eating crayons

A self-deprecating joke. At the bottom of DD posts, it is customary to leave a disclaimer noting that one “eats crayons” as a way to demonstrate that one lacks financial expertise and is not a financial advisor. Alternatively, users may describe their habitual crayon consumption as either “eating green crayons” or “eating red crayons”, it means their investments have gone up or down, respectively.

Gainporn

Posts with images of large investment gains.

GameStop

The struggling video game retailer which has become the most popular stock on WSB. Investors have rallied behind the stock, arguing its shares were excessively shorted and that Board Chairman Ryan Cohen’s ideas have the potential to turn it around.

GME

⁷ “Degenerate - Google Search.” *Google Dictionary*, www.google.com/search?channel=tus5&client=firefox-b-1-d&q=degenerate. Accessed 1 Oct. 2021.

The stock ticker on the New York Stock Exchange for GameStop.

GMEape

Self-deprecating terms describing a GameStop investor.

Hedgie

A derogatory term to describe individuals affiliated with hedge funds.

Hedgie tears

The tears of widely despised individuals affiliated with hedge funds, which WSB investors talk about drinking and swimming in. The term is sometimes used as a synonym for “tendies”, which means investment gains. The idea of drinking or swimming in the tears of the hedgies is a way of motivating the investors to challenge their wealthier enemies.

HODL(ing)

A slang term rooted in Bitcoin investment similar in usage to “having Diamond Hands”.

HOLD THE LINE

A common inspirational phrase to encourage collective holding of meme stocks, especially GameStop, AMC, Nokia, and BlackBerry. Almost always capitalized.

Keith Gill

The real name of DeepFuckingValue. See DeepFuckingValue.

Lossporn

Posts with images of large investment losses. Investors celebrate these losses, racking up many upvotes- the bigger the loss, the more upvotes. Users posting often lose over 80% of their initial investments and have often accrued such massive losses via poorly planned options purchases.

Melvin Capital

The hedge fund with the largest short position against GameStop. For many WSB investors, the name “Melvin” sounded pretentious, further reminding them of the wealth they felt like they would never have. Melvin Capital took enormous losses when investors rallied around GameStop.

(to be) Melvined (verb)

To take out a short position on a stock and then take enormous losses on the position.

Meme stocks

“A meme stock is any publicly traded company that is benefiting from the forces described above – a band of ordinary investors who are using social media to drive interest in the company's shares.”⁸

⁸ Bomey, Nathan Usa Today. “Like GameStop, AMC Stock Is Now Riding the Reddit Wave: What Is a Meme Stock and Is It Right for Your Market Portfolio?” *USA TODAY*, 3 June 2021, eu.usatoday.com/story/money/2021/06/02/amc-stock-meme-stock-gamestop-wallstreetbets/7503571002.

Never Sell

A rallying cry to motivate investors to hold their GameStop shares.

Paper hands

On WSB, the purported hardness of one's hands symbolizes the mental toughness to hold through gains or losses in order to maximize gains. Paper crumbles easily, like the resolve of those who sell at the first sign of risk, and so a user who sells quickly is said to have paper hands. The term is meant as an insult which characterizes the paper-handed as weak and temperamental.

Parents' basement

Another self-deprecating joke; this is purportedly where WSB investors live due to their poor investment decisions.

Roaring Kitty

See DeepFuckingValue. DFV goes by this pseudonym on his YouTube channel.

Robinhood

A stockbroker which, prior to the January 28th shutdown, was popular among WSB investors. Robinhood's decision to shut down buying of GameStop for individual investors but not hedge funds, which it at first did not disclose the claimed reason behind, collectively cost investors hundreds of millions of dollars. Most WSB investors now hate Robinhood, and support protests, investigations, and lawsuits designed to punish the company for the money they believe Robinhood stole from them. A class action lawsuit against Robinhood has arisen from their connections to Citadel, which plaintiffs allege directed Robinhood to shut down trading.

Short position

A short position is a bet that a stock will go down. Investors will sell a stock they do not own, and later cover the short by purchasing back the stock for its owner. Investors profit on the position if the stock drops and they can buy it back for less than they sold it. If it goes up, meanwhile, they can take losses.

Short squeeze

When a large number of investors have taken short positions on a stock, and then a large number of investors buy the stock, sending it up, the stock can rise rapidly enough to require the short investors to buy back the stock at a higher price than they paid for it. If the investors who bought the stock decline to sell, supply and demand can force the short investors to buy the stock at an extremely high price.

Stink/s

A bad stonk. In other words, a stock expected to be a stonk that instead fails to meet the expectations of stonk-like behavior, disappointing investors.

Stonk/s

Stonks are high-risk stocks that demonstrate market dysfunctionality through disproportionate price increases difficult to explain using typical financial valuations.

Stonks!

The exclamatory form of “Stonks” is used to express surprise and/or excitement when an investment, usually but not always a stonk, exhibits stonk-like behavior.

Subreddit

A forum within Reddit. WSB, for example, is a subreddit.

Tendies

Investment gains.

Upvote

Analogous to likes on other social media platforms, except that they are netted out against downvotes. (see: downvote).

Valhalla

A financial heaven which WSB investors will enjoy from their yacht. This is often characterized as having “unlimited tendies” and in freeing investors from financial insecurities such as student loan debt, medical debt, and the inability to afford a home. The way to reach Valhalla is through Diamond Hands. It is often mentioned in conjunction with other religious sentiments.

WallStreetBets

The forum through which small investors communicated about GameStop.

WSB

A common abbreviation for r/WallStreetBets.

Wendy’s dumpster

A self-deprecating joke about those who fail at investment. According to the meme, failed investors take up residence behind the Wendy’s dumpster once they no longer have the opportunity to live in their parents’ basement.

YOLO

Verb: to invest one’s life savings in a single stock or option. Noun: an investment of one’s life savings into a single stock or option.

Appendix B: Detailed Criteria For Code Assignment

I assigned an RS code to identify religious sentiments. I assigned this code if any of the following attributes were present on a post or comment:

- Asserting that holding the stock will bring investors to “Valhalla” or “financial heaven”
- Having faith that the stock will rise⁹
- Praying that the stock will go up generally, or hoping or wishing for an unpredictable intervention by Ryan Cohen, Mark Cuban, or Elon Musk which would significantly increase GameStop’s stock price
- The portrayal of community-leading investor Keith “DeepFuckingValue” Gill as a Jesus-like figure or in another leadership position wherein a legion of supporters blindly follows him, such as the following of Gill on no other basis than what Gill himself has decided to do

Notably, the subset of RS-eligible posts which are eligible due to reference to Keith “DeepFuckingValue” Gill merit anticipation. On the basis of this criteria, some (but not all) posts eligible for an RS tag will always also receive a DFV tag. A post containing art portraying Gill as Jesus, for example, would receive both tags, as would one with a large number of upvoted instances of individuals asserting to hold the stock on the sole basis that Gill retains his own shares. A post which meets one of the other four of the six criteria listed above but which does not involve Gill would receive the RS tag, but would not receive the DFV tag. A post by or about DFV which does not involve the invocation of religious sentiments, such as a meme portraying

⁹ I characterize this as beliefs that the stock will rise far beyond generally accepted evidence, such as breaking the \$800 threshold or most commonly the assertion that GameStop will reach unlimited or near-unlimited value. The two most common examples of these beliefs in action are those telling others to remove sell orders at \$1,000 and those who purchased \$800 call options for April 16th, 2021). Given the investment conditions, there was no substantial quantitative basis for these specific investment decisions. The sole justification was an assertion that GameStop would reach unlimited or near-unlimited value-- essentially an assertion of faith.

investors en masse and Gill collaborating in an equal partnership, would receive the DFV tag but not the RS tag. These examples are not comprehensive-- the importance of presenting them is to clarify that there are instances where the RS and DFV tags overlap, and also instances where they do not. Though some overlap between RS and DFV tags is expected, the presence of a significant amount of overlap would remain a significant finding.

I assigned an EA code to identify sentiments of economic anxiety. I assigned this code if any of the following indications were present on a post or comment:

- Mentioning or implying one is “poor”, “broke”, “working class”, or a synonym
- Talking about things one cannot afford to pay for (most commonly medical debt, student loan debt, and home ownership)
- Implying the rich don’t understand economic mobility (mostly comments about Starbucks, avocado toast, and learning to code, which are popular memes)
- Describing specific things indicative of poverty they, friends, or families experienced (often after the 2008 market crash)

I assigned a P code to identify populist sentiments and an NP code to identify non-populist political sentiments. The NP code was used in any situation where there were clear political sentiments not aligning with the criteria for populism. I assigned the P code if any of the following sentiments were exhibited:

- Resentment towards the wealthy for their role in depriving workers of economic mobility
- Resentment at corporations, the media or government for their complicity in depriving the poor and middle class of economic mobility
- Excitement at the thought of taking money away from the wealthy, whether or not one is gaining it for themselves

- Willingness to lose money in order to punish the wealthy
- Anger directed at Robinhood, Citadel Securities, Melvin Capital, CNBC, or another similar entity for their roles in reducing the value of GameStop's stock
- Agreement with a theory that the modern financial and political systems are designed to prevent economic mobility and maintain class oppression
- Support of populist politicians or any other emphasis on class struggle

Among P and NP coded posts, I assigned a D code for Democrat-aligned posts, which I identified as anything that leaned left of center in the post or had a consensus lean left of center in the comments. I assigned an R code for Republican-aligned posts, which I identified as anything that leaned right of center in the post or had a consensus lean right of center in the comments. I determined if a lean was present based either on content in the post or on a consensus in the comments. I decided if a consensus had been reached in the comments based on either a low number of comments with a large number of net upvotes or a high number of comments. Once I determined there was a lean, I determined whether the lean was to the left or the right using support for individuals affiliated with the left or the right, or opposition to the opposite party. For example, I assigned a D code to a post that expressed approval of Alexandria Ocasio-Cortez in the post. For every other P and NP coded post, I assigned an N code for nonpartisan.

I assigned a DFV code to posts by or posts about Keith “DeepFuckingValue” Gill. I assigned a CP code to posts by or about WSB “cult personalities” Ryan Cohen, Mark Cuban, and Elon Musk. Cohen, Cuban, and Musk were chosen due to their unique level of influence on the stock. Cohen, as the GameStop Chairman of the Board, is the visionary behind the company's turnaround plan. Cohen (Mint, 2021) and Musk (Business Insider, 2021) are both known for

making cryptic tweets with the power to move markets. Cuban made an appearance on WSB to promote the stock. On the basis of these past events, WSB investors have hoped and wished for further interventions- a noted religious sentiment.

I assigned an M code to meme posts and non-meme posts containing substantial levels of meme content. Generally, meme content has humorous intent oriented towards those who understand the in-jokes of a group, although modern meme culture has become so expansive that it is difficult to comprehensively define. Some memes are simply political messages contained in a meme format, which are comedic only in the integration of the format and its subtext, while others are simply amusing with no greater political significance.

I assigned a mood code to every post based on common trends in the comments: H for happy, S for sad, A for angry, F for fearful, SP for surprised, and NS for not significant. In addition, I took notes on the posts. These notes provide relevant context about the posts, highlight examples of the trends relevant to this investigation, and pull a few quotes that most effectively highlight the broader trends and provide the most clear context. Some posts do not have notes; those lacking notes do not contain unique or uniquely relevant information.

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