ATLANTIS PRESS
*Advances in Economics, Business and Management Research, volume 203*
**Proceedings of the 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021)**

# Research on the GameStop Stock Prices Surge during Covid-19 under the Perspective of Individual Investors

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**ABSTRACT**
The breakout of the covid-19 in the United States has caused significant changes in the stock market, while the proportion of individual investors' direct trading increases. The recent Game Stop(GME) short-selling incident showed the power of retail investors, which makes people pay attention to the trend of the return of retail investors to the US equality market. This paper researches the factors that increase individual investors' direct trading behavior in the US stock market during covid-19 and forecasts the stock market's future dominance trend. The research method is to analyze data from Yahoo Finance, and reference the applicable hypotheses and economics policies. Four factors increase the individual investors' direct trading: quarantines and fiscal incentives after the outbreak, retail brokerages zero commission model, stock volatility gives to more opportunities for market speculation, and the influence on social media. Individual investors have made a complex impact on the stock market, however, individual investors' active direct trading behavior is less likely to last for a long time, the dominance of institutional investors is still a long-run trend.

***Keywords:*** *Individual investors, Stock market, Online trading platform, Direct trading, Price surges*

## 1. INTRODUCTION

In the era of the digital economy, the rapid transmission of information expands the scope of the relationship between acquaintances and trust, to divide the voice of professional institutions and individual investors. In 2020, global markets were gripped by a flurry of trading by individual investors, with record registrations at four major retail brokerages, and the share of transactions has risen rapidly. In January 2021, the stock of GameStop, an American video game retailer, was forced to short-selling by individual investors. According to Yahoo Finance data, the stock price skyrocketed from $18.84 at the end of 2020 to a high of $347.51 on January 28, 2021, a 134 percent increase from the day before. After falling to about $40 - $50 in mid-February as professional investors started to move away, the stock price continued to fluctuate wildly. Global capital markets are paying attention to the fact that individual investors in the U.S. are actively trading stocks directly. It has been found that five factors influence the individual investors' investing behavior, including herding, market, prospect, overconfidence-gamble's fallacy, and anchoring-ability bias according to the Ngoc's study [1], but there is little research on why individual investors were able to move the price of a stock to such a high level. From the perspective of individual investors, this paper will study what factors lead to the game between individual investors and institutional investors from the aspects of policy, and technology. This paper will use data from yahoo finance and reference the existing information with both quantitative data and qualitative data. This research can optimize the institutional investments strategies, these factors could be used to predict the amount of investment of individual investors in the future.

## 2. FOUR FACTORS THAT CAUSE GAMESTOP STOCK PRICE SURGES

### *2.1. Fiscal Incentives*

Individual investors, also referred to as retail investors, invest in securities and assets by themselves, usually in modest amounts. The stocks they purchase are part of their personal portfolio and do not reflect any company's interest. Many individual investors make decisions based on their emotions, and some factors contribute to their investing behaviors. Since the 1960s and 1970s, with mutual funds and pensions represented by institutional investors, institutional investors began to gradually occupy the United States stock market-dominant, individual investors remain significant holders of U.S. stocks [2]. After the outbreak of the COVID-19 pandemic that resulting from the highly contagious nature of the virus, stay-at-home order was issued by 42 states and territories from March 19, 2020, to May 31, 2020, which affected 2,355 (73 percent) of 3,233 counties in the U.S.[3] Home quarantine orders restrict people's normal life scope. Three rounds of economic impact payments are funds to help people during the coronavirus pandemic issued by the IRS, with other coronavirus tax relief policies. From the statistics data from the U.S. Bureau of Economics Analysis, personal income increased $1.97 trillion (10.5 percent), disposable personal income (DPI) increased by $2.13 trillion (12.9 percent), while personal consumption expenditure (PCE) decreased by $1.89 trillion (13.6 percent) in 2020 April[4]. The data shows the epidemic led to the contraction of the offline service industry and limited daily consumption behaviors such as catering and entertainment, residents quarantined at home tend to inject more funds into the stock market as they have more free time compared to normal life. Also, the epidemic has caused a large number of unemployed, in April 2020, the unemployment rate is 14.8%, which is the highest rate observed since data collection began in 1948. In May 2021, unemployment remained higher (5.8%) than it had been in February 2020 (3.5%)[5]. Centiment Research polled 2,054 individuals between June 24 and 26, 2020, and found that 83 percent of respondents received government checks, half of them put parts of the stimulus money into the stock market. Unemployed people have a strong incentive to make money, and online stock trading is undoubtedly convenient. In the wake of the COVID-19 outbreak, stay-at-home orders and financial assistance prompted individual investors to open accounts and enter the market.

| | 2019 | 2020 | | | |
|---|---|---|---|---|---|
| | Dec. | Jan. | Feb. | Mar. | Apr. |
| | Percent change from preceding month | | | | |
| Personal income: | | | | | |
| Current dollars | 0.2 | 0.6 | 0.5 | -2.2 | 10.5 |
| Disposable personal income: | | | | | |
| Current dollars | 0.2 | 0.6 | 0.5 | -2.1 | 12.9 |
| Chained (2012) dollars | -0.1 | 0.5 | 0.4 | -1.8 | 13.4 |
| Personal consumption expenditures (PCE): | | | | | |
| Current dollars | 0.4 | 0.4 | 0.2 | -6.9 | -13.6 |
| Chained (2012) dollars | 0.1 | 0.3 | 0.1 | -6.7 | -13.2 |
| Price indexes: | | | | | |
| PCE | 0.3 | 0.1 | 0.1 | -0.2 | -0.5 |
| PCE, excluding food and energy | 0.2 | 0.2 | 0.1 | 0.0 | -0.4 |

**Figure 1:** Personal Income and Outlays: April 2020

## *2.2. Retail Brokerages Zero Commission Model*

Retail brokers often facilitate equity and debt deals, such as stocks and bonds, for their clients. Beginning in September of 2019, several of the major brokerages dropped their commissions to zero on trades that make the individual investors ultra-affordable to trade and begin to grow their ancillary businesses. According to Bloomberg Intelligence estimates, individual investors will account for 20% of all shares traded in the United States in 2020. After the first quarter of 2021, that figure had risen to 22%. The changing to zero-commission stock trading is a win for investors, especially for beginner investors with limited capital. Researchers have found that zero commission brokers significantly increase their market share of client assets and have observed that an increase in smaller trade size buckets in the volume from retail orders is related to zero commissions[6]. As retail brokerages have dropped commissions, individual investors have become more willing to enter the market. As more investors and traders use tablets or smartphones as their primary platform, these companies have worked to improve their mobile apps, attracting more mobile users in the process. The finest online investing apps provide a uniform experience across desktop and mobile devices, including the ability to share watch lists and alerts, as well as stock screeners and check to deposit. . Online brokerage, for example, Robinhood which is known for pioneering commission-free trades started in 2015 via a mobile app, has enlarged its users from 0.5 million in 2015 to 18 million in 2021

[7]. Because of the zero commissions of online trading and the convenience of online software operating, individual investors can easily invest in the stocks market directly. Additionally, the trend of offering the customers the ability to buy and sell fractional shares attracts many young investors and allows the individual investors to diversified their portfolios with relatively small capital.

| Year | Users |
|---|---|
| 2015 | 0.5 million |
| 2016 | 1 million |
| 2017 | 2 million |
| 2018 | 6 million |
| 2019 | 10 million |
| 2020 | 13 million |
| 2021 | 18 million |

**Figure 2:** Robinhood users between 2015 to 2021

| Year | Revenue |
|---|---|
| 2015 | $2.9 million |
| 2016 | $9.3 million |
| 2017 | $21 million |
| 2018 | $69 million |
| 2019 | $278 million |
| 2020 | $959 million |

**Figure 3:** Robinhood revenue between 2015 to 2020

## *2.3. The Stock Volatility Leads to Increased Market Speculation Opportunities*

The rate at which the price of a stock rises or falls over a given period is volatility. More stock price volatility frequently leads to higher risk and helps an investor in predicting future variations.

S&P 500 (The Standard and Poor's 500) which is a stock index tracking the performance of 500 large companies and is used as an example to study the volatility of the United States' stock market, and it is one of the most commonly followed equity indices. It will be used as an example to examine the stock volatility after the outbreak of the covid-19. Volatility in the stock market may also be induced by the advent of new, unexpected information that changes predicted stock returns [8].

There is evidence that the Dow Jones and S&P returns have a favorable impact on conditional heteroscedasticity due to the covid-19 [9]. The volatility of the stock market provides investors with opportunities to make gains, buying from the lows doesn't take long to reap the benefits. During periods of high volatility, like the COVID-19 epidemic, investors are more likely to make biased or emotional decisions. The volatility of the U.S. stock market in 2020 attracted individual investors to enter the market in search of excess returns. Although many individual investors are used to investing in mutual funds and exchange-traded index funds to avoid volatility. Due to the epidemic, the divergence of business conditions of listed companies in the United States has caused stock price fluctuations, attracting individual investors to seek speculative trading opportunities. Also, from the perspective of the value distribution of the stock market, the S&P 500 constituents, several big technology giants have nearly a quarter of market values of the total accounted, so individual investors could just by investing in leading stocks to achieve similar to index the considerable returns. More individual investors may be more willing to allocate to individual stocks, which further pushes the market retail.

## *2.4. Influence by Social Media*

Individual investors increasingly rely on investment advice from social media platforms, even little predictive value's advice could influence their decisions. When stocks are in the news, real investors are influenced by the media, and they tend to purchase rather than sell, so this attention-based buying can lead to investors trading excessively speculatively, influencing the stock's pricing[10]. The researchers discovered that some investors depend on low-predictive-value advice because they believe it is instructive, while others are uninformed of the advice's impact on their investing decisions [11]. The calling on social media could lead to herding behavior. Herding occurs when a group of investors with the same inclinations follows the trading behavior of a leader [12].

Due to the progress of technology, social media is often filled with information about investment, which can guide individual investors to buy a certain stock. One factor behind the surge in GameStop's stock price has been the influence on social media, with people calling for the collective purchase of the stock to avoid the company's collapse. Angel believed in research that some investors share their stock returns and investment suggestions through social media, which plays an instigating role to individual investors who lack information sources and the ability to analyze and discriminate [13].

Individuals engage in herd behavior when they follow the lead of others rather than making judgments based on their own expertise and facts. Herd behavior can lead to illogical actions by large groups. During market bubbles and crashes, this is a regular herding behavior occurrence for investors. Irrational optimism boosts asset values way above their underlying value during a bubble [14]. Affect is a decision-making shortcut in which one's positive or negative sentiments impact one's choices. These are emotional reactions to information rather than logical ones. Affect tends to alter people's perceptions of the advantages and hazards of decisions. In general, if information about a decision makes us pleased, we are more likely to value the option's benefits. On the Reddit forum WallStreetBets, for example, an early individual investor who invested in the game posted a story of the quick wealth creation, that shows making an initial investment of $4,500 into $1.5 million, to promote the "retail crowd." As a result, stock and investment information on social media is another reason for individual investors to engage in direct stock market trading.

## 3. DISCUSSION

In the long run, the enthusiasm of individual investors will not fade quickly, but there is still some distance from the dominant position in the investment market. It is believed that the proportion of individual investors trading in the United States is expected to continue to increase, institutional investors will still dominate the market, because of the following reasons. First, consumption and investment habits formed during the pandemic may continue, so some individual investors in the US will not immediately exit the stock market after the pandemic. Second, the brokerage zero commission trend has formed, the future zero commission trading model will continue to support the enthusiasm of retail investors; Third, the market value of leading companies in the United States is still expanding, and their influence on the index is also increasing. If the performance of the U.S. stock market is still strong, individual investors may be more willing to invest in individual stocks rather than funds.

## 4. CONCLUSION

From the perspective of individual investors, this paper examines the possible causes of GameStop stock price increases, including quarantines and fiscal incentives following the outbreak, retail brokerages zero commission model and the rise of online trading platforms, stock volatility leading to increased market speculation opportunities, and social media influence. These four external factors all have a certain impact on the large-scale purchase of stock by individual investors, resulting in a large-scale increase in the stock price. Developments in fintech have made it easier for individuals to participate directly in the stock market, the outbreak of COVID-19 has changed much of how we know things. In the long run, institutional investors will still dominate the market, and individual investors may launch the stock market when the market profit trend is not obvious, such as the withdrawal of large-scale individual investors caused by the 2008 financial crisis. In the post-epidemic era, the influence of the superposition and fermentation of the two factors on the investment behavior of individual investors still needs a lot of observation and research. The shortcoming of this study is that from the perspective of non-individual investors, the rapid growth of stock prices may also be the result of institutional investors' manipulation of individual investors, which is not considered in this paper. This paper does not propose a quantitative analysis of the impact of these factors on consumer behavior, and the subsequent research can focus on the quantitative analysis of the impact of external factors on individual investment behavior.

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