Written Testimony of
Gina-Gail S. Fletcher
Professor of Law, Duke University

Before the United States Senate
Committee on Banking, Housing, and Urban Affairs

"Who Wins on Wall Street? GameStop, Robinhood, and the State of Retail Investing"

March 9, 2021
10:00 a.m.

Chairman Brown, Ranking Member Toomey, Members of the Committee:

Thank you for inviting me to testify at this hearing. I am a Professor of Law at Duke University, where my research focuses on financial regulation, market manipulation, and corporate law. Before becoming an academic, I practiced law at Gibson, Dunn, & Crutcher LLP, in the areas of securities regulation, banking, and mergers and acquisitions.

INTRODUCTION

A core purpose of the financial markets is to facilitate the efficient allocation of capital.[1] When functioning efficiently, the markets allow for capital to be put to its most profitable use, which enables firms to access capital and improves the allocation of finite resources within the markets and the economy. When the fundamental operation of the markets is undermined, there are far-reaching effects that extend beyond the capital markets, affecting consumer savings, investments, retirement plans, and the rest of the real economy.[2]

The recent market volatility stemming from trading in "meme stocks", most notably GameStop,[3] has raised concerns as to the integrity, stability, and overall health of the markets. Over the course of a few weeks in early 2021, GameStop—a struggling retailer of video games—saw its share price increase 1500%, crash, and then spike again.[4] In the wake of the volatility of GameStop's stock price, many investors (both large and small) have been left with significant losses[5] and some market participants

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[1] Gina-Gail S. Fletcher, *Legitimate Yet Manipulative: The Conundrum of Open-Market Manipulation*, 68 DUKE L.J. 479, 489 (2018).
[2] *Id.; see* Benjamin P. Edwards, *Conflicts & Capital Allocation*, 78 OHIO ST. L.J. 181, 184–85 (2017).
[3] John Hyatt, *How GameStop (GME) Is Creating Volatility – and Opportunities – for Investors*, NASDAQ (Jan. 29, 2021, 1:54 PM), https://www.nasdaq.com/articles/how-gamestop-gme-is-creating-volatility-and-opportunities-for-investors-2021-01-29.
[4] Reuters Staff, *Timeline: The GameStop Battle – How It Unfolded for the Key Players Testifying*, REUTERS (Feb. 18, 2021, 1:20 AM), https://www.reuters.com/article/us-retail-trading-gamestop-timeline/timeline-the-gamestop-battle-how-it-unfolded-for-the-key-players-testifying-idUSKBN2AI0IQ.
[5] Harry Robertson, *Short-sellers Are Nursing Estimated Losses of $19 Billion in 2021 After Betting on GameStop's Stock To Plunge*, MARKETS INSIDER (Jan. 30, 2021, 2:31 PM), https://markets.businessinsider.com/news/stocks/short-sellers-sitting-on-19-billion-of-losses-on-gamestop-data-shows-2021-1-1030020684#:~:text=Ortex%20estimated%20that%20the%20number,told%20The%20New%20York%20Times; Drew Harwell, *As GameStop Stock Crumbles, Newbie Traders Reckon with Heavy Losses,* WASH. POST (Feb. 2, 2021, 5:34 PM), https://www.washingtonpost.com/technology/2021/02/02/gamestop-stock-plunge-losers.

and members of the public wonder whether the GameStop volatility is the "new normal" for the markets.[6]

The recent market events have raised questions as to the long-term health of the markets, specifically the effects of such extreme volatility and the conduct that drove it on public perception of the markets. Additionally, these market developments have brought to the fore some issues related to how the markets function and are regulated, such as efforts to promote market integrity and prevent market manipulation; the costs and impacts of conflicted brokers' routing practices, including payment for order flow ("PFOF"); and the impact of larger numbers of small-dollar, higher risk trading in the markets.

I. MARKET INTEGRITY & STABILITY

A. Market Integrity: The Importance of Public Perception

Market integrity is key to the functioning of healthy capital markets.[7] Market integrity is a broad term that refers to notions of market fairness, investor protection, and the absence of misinformation and market abuse. To the extent the public believes the markets are fair, investors are likely to participate in the markets. Conversely, if the markets are viewed as unfair, investors may refrain from participating in the markets altogether or, should they participate, discount all transactions to reflect the risk of dealing in an unfair market.[8] Public perception of the fairness (or unfairness) of the market, underlies market integrity and, in turn, is crucial to the efficient allocation of capital.

The GameStop incident has highlighted public perception of the unfairness of the markets, on the one hand, and raised new concerns about the integrity of stock prices. As trading in GameStop gained momentum, a narrative of David vs. Goliath coalesced, with the individual, Reddit-led investors being cast as David against the short selling, hedge fund Goliaths.[9] Many of these individual investors expressed the

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[6] *See, e.g.*, William Watts, *GameStop Saga Illustrates Rising 'Noise-Trader Risk' That Could Feed Market Volatility, Warns Quantitative Analyst*, MARKETWATCH, (Feb. 26, 2021, 1:55 PM), https://www.marketwatch.com/story/gamestop-saga-illustrates-rising-noise-trader-risk-that-could-feed-market-volatility-warns-quantitative-analyst-11614365724.

[7] Fletcher, *supra* note 1, at 493.

[8] *Id.* at 492–93.

[9] *See, e.g.*, Associated Press, *GameStop Soars as Swarming Small Investors Face Down Hedge Funds,* L.A. TIMES (Jan. 25, 2021, 1:39 PM), https://www.latimes.com/world-nation/story/2021-01-25/smaller-investors-face-down-hedge-funds-as-gamestop-soars; Edward Helmore, *How GameStop Found Itself at the Center of a Groundbreaking Battle Between Wall Street and Small Investors*, GUARDIAN (Jan. 27, 2021, 5:00), https://www.theguardian.com/business/2021/jan/27/gamestop-stock-market-retail-wall-street; *All Things Considered: Reddit Users Vs. Wall Street Giant in Fight over GameStop Stock Value*, NPR

viewpoint that the markets were "rigged against the little guy" and saw their GameStop trades as a way to right the wrongs of the past.

While the realities of who was trading in which directions, how much, and when will take time to decipher, the views echoed in the GameStop incident are reflective of a larger narrative about the integrity and fairness of the markets. In recent years, an increasing view is that the markets are regulated for the benefit of Wall Street and to the detriment of Main Street.[10] During the 2008 crisis, for example, banks received bailouts while ordinary citizens lost their jobs and homes, struggling to recover years later. Likewise, with the COVID-19 pandemic millions of Americans lost their jobs and their health, but public corporations earned unprecedented profits and the stock market continued to soar. The disparate impact of these two significant financial crises on ordinary citizens versus the economic elite, especially when coupled with the (seeming) lack of enforcement against corporate wrongdoing, have fomented the strong perception that the markets are titled in favor of the wealthy, the banks, and the hedge funds.

The proliferation of these views indicates that many investors do not view the markets as honest, fair, or accessible. Increasingly, seemingly freed by this recognition of the apparent "unfairness," many investors appear to be engaging in transactions that undermine capital allocation and distort asset prices to (attempt to) tilt the markets in their favor.

Yet, even for those who did not previously believe the markets are inherently rigged to favor insiders, the extreme volatility associated with meme stocks may nonetheless cause them to be concerned with the integrity and stability of the markets. This is particularly true if regulators and lawmakers fail to act—either by not addressing the underlying cause for the volatility or by not holding someone accountable for wrongdoing.

To safeguard the integrity of the markets, therefore, it is important that lawmakers and regulators undertake efforts to repair the market's reputation and bolster investor confidence. Research has shown that when investors question the integrity of the markets, they withdraw from the markets, reducing the amount of

(Jan. 27, 2021, 4:14 PM), https://www.npr.org/2021/01/27/961279048/reddit-users-vs-wall-street-giant-in-fight-over-gamestop-stock-value.

[10] *See e.g.,* Alexis Goldstein, Opinion, *The Trouble with GameStop Is That the House Still Wins*, N.Y. TIMES (Feb. 1, 2021), https://www.nytimes.com/2021/02/01/opinion/gamestop-biden-wall-street-reddit.html; Zachary Karabell, *How the GameStop Trading Surge Will Transform Wall Street*, TIME (Jan. 28, 2021, 8:44 PM), https://time.com/5934285/gamestop-trading-wall-street.

capital available in the market in general.[11] Thus, failure to address the issues that GameStop trading highlights may, ultimately, weaken the markets.

While addressing these issues is neither simple nor straightforward, this ought not dissuade Congress and the SEC from investigating how to minimize the likelihood and impact of a future iteration of the volatility we witnessed earlier this year.

B. *Market Manipulation: Was GameStop Stock Manipulated?*

A common theme accompanying discussions about GameStop's stock price was market manipulation. Many questioned whether the coordinated trading of Reddit-inspired investors constituted market manipulation from a legal standpoint and what if anything the SEC should or could do in response.

Among the initial motivators behind the adoption of the securities laws was the prevention of market manipulation. Although the purpose of financial market regulations and laws has since been extended, proscribing and punishing market manipulation remains one of primary goals of the SEC. Market manipulation imposes significant social and financial costs on the financial markets. Furthermore, it undermines the efficient allocation of capital by distorting prices and by contributing to the perception that the markets lack integrity.

Despite its centrality to securities laws, market manipulation is undefined in the securities laws.[12] Instead, the laws and associated regulations prohibit specific, named conduct such as price artificiality, fictitious trades, and fraud. Some have commented that the absence of a statutory definition is the reason that this area of the law is confusing and contradictory. But, as others have noted, given the unexpected ways in which the markets may develop, tying regulators to a fixed definition of manipulation may do more harm than good.[13]

In identifying manipulative conduct, courts have typically looked for evidence of willful misconduct, fraud, and/or an artificial price. Academics have also tried to define manipulation through conduct that has an improper effect on price or efforts to dominate supply and demand to artificially distort prices.

Notwithstanding the lack of an agreed upon definition, the SEC, FINRA, and the exchanges all have anti-manipulation provisions that proscribe and punish abusive

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[11] EMILIOS AVGOULEAS, THE MECHANICS AND REGULATION OF MARKET ABUSE A LEGAL AND ECONOMIC ANALYSIS 212 (2005).
[12] Fletcher, *supra* note 1.
[13] As one court opined: "Congress' decision to prohibit manipulation without defining it apparently arose from the concern that clever manipulators would be able to evade any legislated list of proscribed actions or elements of such a claim." *In re* Soybean Futures Litig., 892 F. Supp. 1025, 1044 (N.D. Ill. 2015).

practices that distort asset prices. But as decades of enforcement actions and litigation has demonstrated, proving market manipulation as a matter of law can be very difficult. Indeed, one person's manipulation can be seen as another person's exuberance, even if irrational.

Whether the GameStop incident rises to the level of legally recognized and punishable market manipulation is a fact-intensive inquiry, which is ongoing. But, beyond the stark question of whether this constitutes illegal manipulation, the GameStop incident highlights the ways in which social media and technology have combined to push the limits of market regulations. It also calls into question to what extent existing understandings of manipulation can adequately respond to and, ultimately, deter the type of misconduct that may have occurred. Regardless of the outcome of the pending investigations into possible market manipulation, there are two recommended actions Congress and the SEC should consider.

First, Congress and regulators should hold traders accountable for their words and actions, even in the absence of explicit fraud. Price distortion can occur without explicit fraud and, when it does, someone ought to be held accountable.[14] There ought to be consequences for using internet platforms and social media to encourage others to buy/sell stock, if result is a price that is so distorted as to be completely divorced from the company's fundamentals.

Unfortunately, manipulation laws have become ossified, and courts have been somewhat hostile to new interpretations and applications of the law from regulators. This makes it somewhat challenging for regulators to address novel forms of market manipulation using laws that were written almost a century ago and long before most of the things that are commonplace in today's markets were even conceivable. The type of coordinated action among thousands of dispersed, small-dollar investors that was seen during GameStop's rise was not imaginable when courts and regulators first conceptualized the market power needed to squeeze or corner the markets. However, in today's markets this is not only plausible, but it can be just as disastrous as traditional manipulation schemes.

As the markets evolve and the types of abusive trading tactics evolve along with it, it becomes increasingly urgent that Congress revisit and expand the anti-manipulation authority granted to the SEC. Congress and regulators should explore updating the laws and rules against market manipulation to ensure regulators have the tools they need to protect the integrity of the markets against intentional, extreme price distortions.

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[14] Fletcher, *supra* note 1.

Second, the SEC has traditionally relied on enforcement actions to address market manipulation. Punishing traders ex post for their conduct has been an understandable approach in the past, but it is not as sound in the modern markets where herd behavior is swift and can be disastrous. In today's markets, the SEC should explore the types of ex ante guardrails needed to protect the markets from extreme price distortion that will undoubtedly leave destruction in its wake.

As the volatility in GameStop and other stock persisted, the SEC issued a statement that it was monitoring the situation, but failed to take any action. The agency's refusal to act lead many to wonder why trading in GameStop stock was not halted once it became clear that the stock price was completely and unjustifiably divorced from the company's fundamentals. Arguably, the SEC's failure to act created a vacuum of authority, which resulted in a haphazard and uneven response from market actors. While some brokers halted trading in GameStop, others did not, causing public uproar. Leadership from the SEC indicating what should have been done or, at a minimum, a statement of recommended action would have had a better outcome for the markets and less public furor.

It is not beyond the scope of the SEC's authority to proactively consider how it will respond to certain indicators of price distortion and manipulation in the markets. In light of the far-reaching consequences of manipulation on today's interconnected markets, it is imperative that the SEC consider how to address extreme volatility in real time, particularly when such volatility may be borne from manipulative and abusive trades.

II. <u>DEMOCRATIZING THE CAPITAL MARKETS</u>

A. The Impact of Technology & Innovation on Retail Investors' Access to the Public Capital Markets

The federal securities laws were adopted to ensure that all investors – not just sophisticated, wealthy, or connected insiders – have access to essential information about companies and basic shareholder rights. In many ways, the federal securities laws exist to "democratize" the capital markets.

In recent years, financial innovation has further expanded the availability of capital for firms and enhanced retail investors' access to the markets.[15] The creation and proliferation of discount brokers, mutual funds, exchange traded funds, and 401(k) plans have made investing available to a large segment of the population. Further, the entrance of robo-advisors onto the financial scene has granted investors

[15] JOHN V. DUCA, FED. RESERVE BANK OF DALLAS, THE DEMOCRATIZATION OF AMERICA'S CAPITAL MARKETS 10–13 (2001).

access to model portfolios tailored to their risk profiles and investment preferences, further increasing access for consumers seeking low-cost financial advice.[16]

The democratization of the financial markets, therefore, has been ongoing for decades, but it has undoubtedly exploded in measure and kind in the past five years.[17] Efforts to increase retail access to the markets have resulted in greater participation in index funds, mutual funds, etc., which rely on intermediaries to transact on consumers' behalf.[18] Recently, with the rise of zero-commission trading, retail investors are choosing to directly participate in the markets at unprecedented levels.

In the past year or two, many low-cost brokers have eliminated explicit fees to buy and sell stocks, thereby opening up access to the markets to those who may have been unwilling or unable to trade because of what were once significant explicit commissions and fees.[19] Additionally, the ability to trade in fractional shares has lowered costs for investors who no longer need over $2,000 to buy a single share of a company like Amazon, for example; instead, they can purchase $100 of stock or 1/20th of the share. With technology, market democratization has gone a step further—brokers allow trading through apps, thereby making it easier for younger investors to access the markets on their mobile devices.[20] Today, it is not a stretch to say that the markets are truly within reach of anyone.

These developments have had a noteworthy and positive impact on retail participation in the markets. A recent study has demonstrated that the racial gap in individual stock ownership has been halved in less five years.[21] Similarly, a recent FINRA study found that the majority of investors who opened their first account in 2020 were under the age of 45, had lower incomes, and were more likely to be racially

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16 Anne Tergesen, *Robo Advisers Seen Exploding in Popularity*, WALL ST. J. (Dec. 11, 2015, 7:08 PM), https://www.wsj.com/articles/robo-advisers-seen-exploding-in-popularity-1449860367.
17 *See* Charlotte Gifford, *Democratising Finance*, WORLD FIN. (Jan. 25, 2021), https://www.worldfinance.com/special-reports/take-from-the-rich-give-to-the-poor.
18 Jay Clayton, Chairman, SEC, Speech at Temple University: The Evolving Market for Retail Investment Services and Forward-Looking Regulation – Adding Clarity and Investor Protection While Ensuring Access and Choice (May 2, 2018), https://www.sec.gov/news/speech/speech-clayton-2018-05-02.
19 For example, Schwab eliminated fees for stock purchases in October 2019. *See* Alexander Osipovich & Lisa Beilfuss, *Schwab Cuts Fees on Online Stock Trades to Zero, Rattling Rivals*, WALL ST. J. (Oct. 1, 2019, 7:04 PM).
20 Alicia Adamczyk, *Trading Apps Like Robinhood Are Having a Moment. But Users Should Be Careful*, CNBC (Aug. 24, 2020, 3:49 PM), https://www.cnbc.com/2020/08/21/robinhood-is-having-a-moment-users-should-be-careful.html.
21 Aaron Brown, Opinion, *Stock Investors Are Younger and More Racially Diverse*, BLOOMBERG (Sept. 21, 2020, 6:00 AM), https://www.bloomberg.com/opinion/articles/2020-09-21/stock-investors-are-younger-and-more-racially-diverse.

and ethnically diverse.[22] In sum, technology and innovation have enabled a "shift towards more equitable investment participation," which is a laudable achievement in the development of the markets.[23]

However, the rules for stock trading have generally not kept pace with these rapid evolutions. Technology has made it easy to trade incredibly complex, leveraged, and high-risk investments, with relative ease. I urge Congress and the SEC to think clearly about what that means not just for those investors, but for the millions who invest through pension funds and mutual funds, as well as the businesses and economy that rely on our capital markets.

If you wish to further democratize the capital markets, I would urge you to begin by restoring the emphasis on the public markets, and looking to reverse the proliferation of exemptions and exceptions from the federal securities laws.

B. *The Private Capital Markets are not Suitable for Retail Investors*

Because of the great strides retail investors have made in accessing the public capital markets, there may be an inclination to consider granting them access to the private capital markets. The recent market events have exposed the growing discontent of retail investors with the perceived unfairness of the public markets. As the argument goes, institutional investors and high-net-worth investors have access to a market that is brimming with greater returns on investment that the public markets and it is to the disadvantage and detriment of the retail investor to deny her access to these markets. This argument, however, ignores key factors that would put retail investors in a significantly worse position if they were able to invest directly in private securities.

The public capital markets in the U.S. are based on a system of regulation that is based fundamentally on mandatory and ongoing disclosure from those offering securities to investors and the public. Broadly, securities must be registered with the SEC prior to being offered and sold on the public markets.[24] There must be "full disclosure of the character of such securities," [25] including basic information about the company, its management, and its financials. Further, after a company is "public," it

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[22] News Release, Angelita Williams & Eric Young, FINRA, New Research: Global Pandemic Brings Surge of New and Experienced Retail Investors into the Stock Market (Feb. 2, 2021), https://www.finra.org/media-center/newsreleases/2021/new-research-global-pandemic-brings-surge-new-and-experienced-retail.
[23] *Id.*
[24] Securities Act of 1933 § 5, 15 U.S.C. § 77e (2018).
[25] H. Rep. 73-85 (1933), at 2-3.

must share information with the public fairly, and cannot selectively disclose information to favored investors or other insiders.[26]

The mandatory disclosure regulatory regime of the U.S. public markets is foundational to market democratization because it ensures that all investors—regardless of size, influence, insider connections, or wealth—have access to the same information on an ongoing basis. Mandatory disclosure obligations for accessing the capital markets levels the playing field as between retail investors with no access and corporate insiders or sophistication, influential investors.

To grant retail investors access to the private capital markets would place retail investors at a significant informational and positional disadvantage because there would be considerable information asymmetry. As a starting principle, it is important to keep in mind that "private" markets refer to markets for which the mandatory comprehensive disclosure and rights regime of the federal securities laws do not apply.

In contrast to the public markets where information is readily available, the private markets are opaque and subject to little to no disclosure requirements.[27] This lack of disclosure means that investors in the private markets must ascertain the value of securities on their own and without the help of the public disclosures or readily available information. Indeed, private securities typically have no generally agreed upon "market price" as the company's valuation is often determined separately with each new round of financing. Trading prices in private market trading venues often have massive variations, and comparatively high transaction costs.[28]

Unsurprisingly, private company valuation is notoriously fraught with complications and disagreement, resulting in valuations that may be unsupported based on the company's undisclosed financial condition. The case of WeWork provides a salient example. In January 2019, the company was valued on the private markets at $47 billion. It's largest shareholder SoftBank is an investment bank with significant experience investing in private companies. Yet, shortly after WeWork filed its S-1 to initiate a public offering of its stock, the company's valuation plummeted. Several months later, after a shelved IPO, WeWork was valued at a little under $3 billion.[29] But again, this valuation was based on SoftBank's calculations, which are

[26] *See, e.g.*, Press Release, SEC, SEC Charges AT&T and Three Executives with Selectively Providing Information to Wall Street Analysts (Mar. 5, 2021), https://www.sec.gov/news/press-release/2021-43#.YEOQlWUhHjk.twitter.
[27] Elizabeth Pollman, *Information Issues on Wall Street 2.0*, 161 U. PA. L. REV. 179, 235–36 (2012).
[28] Letter from Tyler Gellasch, Health Markets Ass'n, to Off. Sec'y, SEC, (Sept. 30, 2019), https://healthymarkets.wpengine.com/wp-content/uploads/2019/09/SEC-Concept-Release-9-30-19-1.pdf.
[29] Bryan Pietsch, *WeWork's Valuation Has Fallen from $47 Billion Last Year to $2.9 Billion*, BUS. INSIDER (May 18, 2020, 11:38 AM) https://www.businessinsider.com/wework-valuation-falls-47-billion-to-less-than-3-billion-2020-5#:~:text=WeWork's%20valuation%20has%20fallen%20to,said%20in%20its%20earnings%20report.

debatable given that WeWork is still private and not subject to public disclosure of its financial condition.

The alarming failure of SoftBank, an undeniably sophisticated investor in the private markets, to value WeWork should raise serious doubts as to whether a retail investor, even a sophisticated one, would fare any better in valuing a private company.

Additionally, the absence of standardized and mandated information dissemination means that retail investors will be at a severe disadvantage relative to insiders and more powerful investors who can demand information or negotiate disclosures from private issuers. With no regulatory mechanism to force disclosures, there is no reason to believe that private companies will voluntarily and on a timely basis disclose information, even information material to the value or future existence of the company, such as the loss of a major client, the imposition of government sanctions, or pending bankruptcy.

Likewise, whereas in the public markets Regulation Fair Disclosure prohibits selective disclosure of information, there is no corollary in the private markets. Private companies can provide information to institutional investors in compliance with contract-based information rights but refuse to provide the same information to retail investors. Retail investors, therefore, would be completely in the dark as to the operation, profitability, future, and value of private companies if allowed to invest in them. At a such a disadvantaged position, it would be impossible for retail investors to make an informed decision as to how to allocate their capital in the private markets.

C. Policy & Practical Considerations/Implications Regarding Greater Retail Participation

While the public markets are more suitable for retail investors versus the private markets, there are concerns that arise with regards to greater retail participation in the public markets. To be clear, these concerns do not equate with eliminating retail participation in the markets, but they do signal the need to consider how to address the ramifications on not only those investors, but also the overall operation and structure of the market. There are three issues I would like to raise.

First, retail investors seem to have very limited understanding of the markets and products that they are trading. As a 2020 FINRA study notes, there were "low levels of investment knowledge among all types of investors [in the study]—new and experienced…."[30] The lack of knowledge among retail investors indicates that there is likely an underappreciation of the risks and costs of participating in the markets. Specifically, approximately 38% of new investors self-assessed their investment

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[30] *Id.*

knowledge as low/very low.[31] And, on the objective investment knowledge assessment, all investor types scored poorly.[32]

Indeed, it is particularly noteworthy given that the investors are participating in the public capital markets, where there is an abundance of information on the corporations in which they may trade. Yet, their understanding of the markets and their transactions were concerningly low. As the FINRA study concludes, the low level of knowledge among investors, particularly new investors, makes them "potentially unprepared to make sound investment decisions…."[33] Thus, while increased retail participation is laudable, it is imperative to consider how to protect retail investors from unsuitable investments that they neither understand nor appreciate the risks.

Second, with the proliferation of zero-commission brokers and trading apps that ease access to the markets, there is the question: *what are retail traders able to access with these modern-day brokers?* A troubling aspect of the GameStop incident is that many traders were trading call options on the stock.[34] The widespread use of options in GameStop trades reflects the ease with which retail investors are now able to trade complex financial products on margin, which is concerning for a few reasons.

Options trading is complex and can entail significant risks for traders. Options are leveraged transactions that can amplify the gains and losses a trader experiences in the market. There are real policy issues at play when we consider whether retail investors ought to be able to trade on leverage—either at all or as easily as they currently can through some retail broker-dealers. Given than a large number of investors in a recent FINRA study stated that they were unaware of whether their account charged fees,[35] how can we expect retail investors to appreciate the risks attendant with options trading and other complex financial instruments.[36]

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[31] FINRA INV. ED. FOUND., CONSUMER INSIGHTS: MONEY & INVESTING, INVESTING 2020: NEW ACCOUNTS AND THE PEOPLE WHO OPENED THEM 15–16, https://www.finrafoundation.org/sites/finrafoundation/files/investing-2020-new-accounts-and-the-people-who-opened-them_1_0.pdf.
[32] *Id.* at 16.
[33] *Id.*
[34] Chris McKhann, *GME Stock Options Trading Explained: The Leverage of Long Calls Against the Volatility of GameStop*, INV'S. BUS. DAILY (Feb. 1, 2021, 3:08 PM), https://www.investors.com/research/options/gme-stock-options-buyers-got-rich-now-looking-puts.
[35] Williams & Young, *supra* note 22.
[36] We have also seen retail investors not sufficiently appreciate leveraged ETFs, where retail investors often believe that their investment performance is simply going to be the returns of some index multiplied by some factor, but that is not how those products typically work. DIV. ECON. & RISK ANALYSIS, SEC, ECONOMICS NOTE: THE DISTRIBUTION OF LEVERAGED ETF RETURNS (2019), https://www.sec.gov/files/DERA_LETF_Economics_Note_Nov2019.pdf.

Investor understanding of the risks, costs, and potential fallout from options and leveraged trading is likely limited and, therefore, we should be more thoughtful about what financial products are available to retail investors. To be plain: democratization of finance cannot mean that investors, regardless of their experience and sophistication get access to options trading and margin accounts. This is not only foolish, but dangerous. Indeed, we need not look any further than the young man who committed suicide because he erroneously believed he had a negative balance of over $700,000.[37] There must be an awareness of the limited knowledge and expertise of retail investors as they gain access to increasingly complex products.

I would urge Congress, the SEC, and FINRA to reconsider the ready availability of complex financial products for retail investors. Further, Congress, the SEC, and FINRA should inquire into how investors are able to access margin accounts and options trading. Some reports have stated that users on certain broker platforms are defaulted into margin accounts, which raises significant concerns related to investor protection.[38]

Third, as retail traders become more active and potent participants in the market, it becomes necessary to consider how their presence and behaviors impact the broader markets. It may be tempting to think of the exuberance of retail investors for GameStop in January 2021 as a one-off event, but this would be short-sighted. Indeed, in June 2020 retail investors piled into Hertz stock, even though the company was going through bankruptcy, increasing the stock price tenfold.[39] Additionally, even as GameStop's price began its descent from its inexplicable highs, the stock price of other companies, such as AMC Theatres and BlackBerry, also began to increase because of retail investor interest.[40]

With significant reform, it is fair to believe that these wild swings in stock prices owing to retail traders may become a recurring feature of the markets. As was seen with GameStop, the fallout is not limited to traders, but there are consequences for the clearinghouse and for brokers as they try to keep pace with heavy transaction

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[37] Maggie Fitzgerald, *Robinhood Sued by Family of 20-Year-Old Trader Who Killed Himself After Believing He Racked Up Huge Losses*, CNBC (Feb. 8, 2021, 6:28 PM), https://www.cnbc.com/2021/02/08/robinhood-sued-by-family-of-alex-kearns-20-year-old-trader-who-killed-himself-.html (last updated Feb. 8, 2021, 9:26 PM).
[38] Letter from Tyler Gellasch, Health Markets Ass'n, to Maxine Waters, Chairwoman, Comm. Fin. Servs., Patrick McHenry, Ranking Member, Comm. Fin. Servs., Brad Sherman, Chairman, Subcomm. Inv. Prot. & Bill Huizenga, Ranking Member, Subcomm. Inv. Prot. 17 (Feb. 17, 2021), https://healthymarkets.org/wp-content/uploads/2021/02/Letter-to-HFSC-Hearing-2-17-21.pdf.
[39] David Welch & Steven Church, *What It Means To Buy Stock in a Bankrupt Company Like Hertz*, BLOOMBERG (June 18, 2020, 5:00 AM), https://www.bloomberg.com/news/articles/2020-06-18/what-it-means-to-buy-stock-in-a-bankrupt-company-like-hertz.
[40] Gunjan Banerji, Juliet Chung & Caitlin McCabe, *GameStop Mania Reveals Power Shift on Wall Street—and the Pros Are Reeling*, WALL ST. J. (Jan. 27, 2021 6:46 PM), https://www.wsj.com/articles/gamestop-mania-reveals-power-shift-on-wall-streetand-the-pros-are-reeling-11611774663?mod=article_inline.

and order flow. There may also be significant consequences on the companies whose stock prices are gyrating. But perhaps even more concerningly, these wild fluctuations may prove to be a significant deterrent for future long-term investment.

Congress and the SEC should consider the extent to which the market and incentives structure that currently exists (such as payment for order flow, discussed below) contribute to the volatility accompanying increased retail interest in certain stocks.

Further, as these peaks and troughs become more common in the markets, I would encourage Congress and the SEC to explore whether the existing framework can manage the risks and consequences that accompany growing retail participation in the markets. To the extent it cannot, the answer ought not to lie with limiting retail participation, as seems to have happened recently when some broker-dealers suspended trading in highly volatile stocks. Rather, the onus should be placed on clearinghouses and brokers to do a better job of anticipating and responding to potential market volatility. To this end, I encourage Congress, the SEC, FINRA, and the DTCC to consider updates to broker capital requirements, margin call processes, and settlement processes.

III. <u>Payment for Order Flow</u>

A contributing factor to the recent market volatility that raises policy and regulatory concerns is payment for order flow ("PFOF"). PFOF is the practice by which brokers are compensated for routing client orders to third parties, such as wholesalers and market makers, for execution.[41] Through PFOF, retail brokers' commissions are subsidized or substituted by payments received from third parties who are able to profitably trade against those clients' orders.

During a Congressional hearing last month, Robinhood's CEO testified that over half of the firm's revenues came from PFOF.[42] With brokers, wholesalers, and market makers earning such high profits from PFOF, one is left to wonder if investors are truly better off under this model.

PFOF is a concerning practice that has been allowed to continue in the US securities markets, although its costs to both retail investors and the markets overall outweigh the supposed benefits they receive. PFOF is innately conflicted, placing retail

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[41] Alex Rampell & Scott Kupor, *Breaking Down the Payment for Order Flow Debate*, ANDREESSEN HOROWITZ (Feb. 17, 2021), https://a16z.com/2021/02/17/payment-for-order-flow.

[42] *Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide: Hearing Before the H. Comm. on Fin. Servs.*, 117 Cong. (Feb. 18, 2021) (statement of Vladimir Tenev, CEO, Robinhood Markets, Inc.), *prepared remarks available at* https://financialservices.house.gov/uploadedfiles/hhrg-117-ba00-wstate-tenevv-20210218.pdf.

investors in an inferior position vis-à-vis their broker. Further, claims that PFOF results in price improvement are questionable at best and it is more likely that retail investors are often paying higher prices for their trades than they would if those orders were exposed to the exchanges. Lastly, PFOF increases market segmentation and decreases liquidity, which diminishes market stability and efficiency. Each of these is discussed in greater detail below.

A. PFOF is Innately Conflicted & Opaque

Broker-dealers are bound by a duty of loyalty to their clients. This duty includes the duty to act in the best interests of their clients and obtain the best terms for their clients when executing trades. This duty of loyalty is delineated through SEC and FINRA rules, and numerous cases. PFOF directly undermines this duty by allowing brokers to route client orders based on agreements with third parties, allowing these third parties to profit at the expense of clients.

Previously, broker revenue was primary earned from their customers to whom they owe such a duty, aligning the interests of the brokers with their clients'. PFOF undermines this relationship because it pits the brokers' primary revenue source directly against the clients to whom they owe the duty of best execution. Under the PFOF model, brokers are incentivized to put their own profit-seeking interests above their clients in deciding where to route client orders. This practice greatly undermines the broker-investor relationship and leaves retail investors in a worse position.

Additionally, it is questionable whether brokers are truly getting the best execution for clients if they receive PFOF. To the extent brokers are required to put clients' interests above incentives for trade routing, as required by FINRA's rules regarding best execution,[43] PFOF is fundamentally at odds with this duty. Recent, separate actions by FINRA[44] and the SEC[45] against Robinhood for failure to achieve best execution, for example, would seem to bear this out.

Another related issue with the PFOF structure is the lack of transparency. SEC rules require brokers to report their PFOF statistics, including net payments received from market makers for trade execution and the rate of PFOF per 100 shares. These disclosures, which were recently amended in 2020, provide data in the aggregate that make it impossible for individual retailers to know specific, individualized information.

[43] *Regulatory Notice 15-46: Guidance on Best Execution Obligations in Equity, Options and Fixed Income Markets*, FINRA (Nov. 2015), https://www.finra.org/rules-guidance/notices/15-46.
[44] *See, e.g.*, Letter of Acceptance, Waiver, and Consent No. 2017056224001 from Robinhood Fin., LLC., to Dept. of Enf't., FINRA (Dec. 19, 2019), https://www.finra.org/sites/default/files/2019-12/robinhood-awc-121919.pdf.
[45] In the Matter of Robinhood Fin., LLC, Admin. Proc. File No. 3-20171 (Dec. 17, 2020), https://www.sec.gov/litigation/admin/2020/33-10906.pdf.

This lack of information makes it difficult for retail investors to compare costs across brokers and to appreciate the true costs of their trading activities.

Importantly, even though the SEC requires that these reports are made available to customers, it can be nearly impossible to locate them on the broker's website.[46] And, there are questions as to whether the reports some brokers provide even comply with the SEC regulations. It is imperative that the SEC mandate additional disclosure around this issue in order to make investors more informed about the costs of their allegedly free trading accounts.

Lastly, Congress should explore whether PFOF ought to be banned given its inherent incompatibility with best execution and brokers acting in the best interest of their clients. If a broker is able to cover its trading expenses through receipt of fractions of a penny per share from a third party, could it not simply charge its actual customer a similar price?

A ban on PFOF is unlikely to result in the end of retail investor participation in the market. But it can result in less conflicted order routing and adoption of a more transparent pricing model. Other jurisdictions, such as the United Kingdom and Australia, have banned PFOF because it is innately conflicted and of questionable benefit to investors.[47] FINRA has begun an examination of PFOF and the zero-commission business model because of their problematic incentive structures.[48] In light of the concerning features of PFOF, Congress and the SEC should explore whether its continuation is truly in the best interest of retail investors or in the best interest of brokers, wholesalers, and market makers.

B. Price Improvement is Questionable

One of the main arguments in favor of PFOF is that the third parties to which brokers route orders purportedly provide retail customers with "price improvement." Often, market participants will (somewhat misleadingly) claim that "price improvement" means that retail customers are getting better prices than are available on exchanges. For example, Robinhood's CEO testified: "In fact, Robinhood

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46 Letter from Tyler Gellasch, Healthy Markets Ass'n, to Brent J. Fields, SEC, at 7-8, (Sept. 26, 2016), https://healthymarkets.wpengine.com/wp-content/uploads/2018/04/09-26-16-HM-letter-Order-Handling-Disclosure-rules.pdf; Annette L. Nazareth, Gregory Rowland, Zachary J. Zweihorn & Mark A. Sater, *SEC Adopts Enhanced Order Handling Disclosure Requirements*, FINREG: DAVIS POLK INSIGHTS ON FIN. REG. (Nov. 27, 2018), https://www.finregreform.com/single-post/2018/11/27/sec-adopts-enhanced-order-handling-disclosure-requirements.
47 CFA INST., PAYMENT ORDER FLOW: INTERNALISATION, RETAIL TRADING, TRADE-THROUGH PROTECTION & IMPLICATIONS FOR MARKET STRUCTURE 2 (2016), https://www.cfainstitute.org/-/media/documents/issue-brief/payment-for-order-flow.ashx (discussing the U.K. ban on PFOF).
48 *Targeted Examination Letter on Zero Commissions*, FINRA (Feb. 2020), https://www.finra.org/rules-guidance/guidance/targeted-examination-letters/zero-commissions.

customers received more than $1 billion in price improvement—the price they received compared to the best price on a public exchange—in the first half of 2020."[49]

But that is not what price improvement is often defined to calculate. Rather, "price improvement," as defined by SEC Rule 605 is not measured from the best available prices on exchanges, but rather the best available protected quote.[50] Odd-lot quotes (i.e., buy/sell offers for less than 100 shares) are generally not protected and, therefore, they are not used to calculate price improvement, even if they are a better price than the protected quote. Consequently, price improvement claims are often overstated and fail to reflect that many investors' executions were not at the best available prices, but were instead at prices that were inferior to odd-lot quotes on the exchanges.

Studies have also raised questions as to whether retail investors receive the best price when their orders are routed based on PFOF. A study by the U.K. financial regulator found that in removing broker payments for order routing, investor execution at the best available price increased from 65% to 90%.[51] A more recent study based on U.S. transactions in GameStop during the January trading frenzy estimated that price improvement estimates were cut in half when odd lots on just Nasdaq were included in the calculations.[52]

To improve the calculation of price improvement and actually enable investors to receive best execution, the SEC should immediately update Rule 605 to reflect odd-lots in the calculation of price improvement. There is little to no justification in the current market for excluding odd-lot quotes from the calculation of price improvement. And, there is even less justification for excluding it from determining the best available price for trade execution when the aggregated available odd lots are at least as great as a customer order.

It is also worth noting that it appears that different retail broker dealers appear to negotiate different amounts of price improvement for their customers. Further, the amounts of price improvement seem to be, in many cases, inversely related to the amount of payments received by the broker as part of its PFOF. It seems as though it should be obvious, but if one retail broker is routinely providing its customers with better prices than another, they can't both be providing "best execution."

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[49] *Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide: Hearing Before the H. Comm. on Fin. Servs.*, 117 Cong. (Feb. 18, 2021) (statement of Vladimir Tenev, CEO, Robinhood Markets, Inc.), *prepared remarks available at* https://financialservices.house.gov/uploadedfiles/hhrg-117-ba00-wstate-tenevv-20210218.pdf.
[50] *SEC Rule 605*, FINRA, https://www.finra.org/rules-guidance/guidance/sec-rule-605 (last visited Mar. 7, 2021).
[51] CFA INST., *supra* note 47, at 2.
[52] Robert P. Bartlett, III & Justin McCrary, *Modernizing Odd Lot Trading* (on file with author).

Lastly, as discussed below, even using a more accurate calculation methodology, the "price improvement" statistic may still not reflect an improvement over a price that could have been received if the order had been routed to the lit markets. That's because if a retail order is routed to an exchange, it is likely that the order could receive mid-point trade executions that would offer far better prices than the price improvement currently offered.

C. Price Discovery & Market Liquidity are Reduced

Another consequence of PFOF is that it results in significant market segmentation. Retail orders routed to a market maker, for instance, are typically filled by the market maker without ever trading on the exchanges. Given that retail trades account for an ever-increasing segment of the markets, isolating retail transactions to market makers with whom brokers have order routing arrangements reduces liquidity and price discovery for the rest of the markets.

In adopting Regulation National Market System ("Reg NMS"), the SEC sought to create a fair and transparent marketplace in which investors could trade at the best price available across the different venues trading a security.[53] The reality, however, is that the securities markets are more fragmented today than they were prior to the enactment of Reg NMS. There are over a dozen exchanges and dark pools, and hundreds of broker-dealers who fill customer order internally or route them according to prior arrangements.[54] Further compounding this fragmentation, it is estimated that close to 100% of retail orders are internalized and, therefore, never interact with the broader market in execution.[55]

Over the past several years, the amount of exchange trading has steadily declined as retail trading has increased. Over the past several weeks, as much as half of all trading has been occurring off-exchange.[56] This means that those orders are not contributing to price discovery. Pension funds, mutual funds, and other investors are generally unable to interact with them. Further, as discussed above, retail customers may not be receiving the best price available.

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[53] Div. Trading & Mkts., *Responses to Frequently Asked Questions Concerning Rule 611 and Rule 610 of Regulation NMS*, SEC, https://www.sec.gov/divisions/marketreg/nmsfaq610-11.htm (last updated Apr. 4, 2008).
[54] CFA INST., DARK POOLS, INTERNALIZATION, AND EQUITY MARKET QUALITY 2 (2012), https://www.cfainstitute.org/en/advocacy/policy-positions/dark-pools-internalization-and-equity-market-quality.
[55] *Id.* at 16.
[56] Alexander Osipovich, *GameStop Mania Highlights Shift to Dark Trading*, WALL ST. J. (Feb. 12, 2021, 5:33 AM), https://www.wsj.com/articles/gamestop-mania-highlights-shift-to-dark-trading-11613125980.

Relatedly, segmentation of retail transactions has reduced market liquidity, making it harder for institutional investors to trade.[57] Retail trades are inaccessible sources of liquidity, which has a significant effect on the cost to trade popular stocks that have a high percentage of retail ownership. Apple, for example, has an estimate retail share of 38%, which is unavailable to most institutional investors because the trades are fulfilled internally. As a result, institutional investors seeking to trade stock with high retail ownership face significantly higher costs because of diminished liquidity and increased volatility.[58]

CONCLUSION

Today, it is easier, cheaper and faster to trade more complex and leveraged financial products that ever before. This new market reality requires that we rethink the risks that accompany these developments and, in so doing, consider what types of markets we want to create and encourage from a policy perspective. Promoting and strengthening market stability and integrity is essential to the market fulfilling its fundamental purpose: efficiently allocating capital to businesses, driving the economy, and enabling investors to enjoy reasonable returns on their capital. Recent events have highlighted concerns and shortcomings in the existing market structure, which must be comprehensively addressed in order to ensure that the markets remain fair, stable, and accessible companies seeking capital and, most importantly, all investors.

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[57] *Meme Stocks: Inaccessible Trading Share, Trading Cost, and Risk*, BABELFISH ANALYTICS (Feb. 5, 2021), https://www.babelfishanalytics.com/news/2021/2/4/meme-stocks-inaccessible-trading-share-trading-cost-and-risk.

[58] *Id.*