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MARKET STRUCTURE BRIEF: THREE ISSUES IN THE SPOTLIGHT FOLLOWING THE MEME STOCK SPECTACLE OF 2021

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Summary

This paper briefly addresses three issues at the forefront of policymaking in the wake of the "meme stock" trading frenzy that roiled the U.S. equities market in January 2021. In particular, there are questions about the potential conflicts of interest in the payment for order flow system, transparency of short positions and whether to shorten the two-day delay in trade settlement. While this report does not endorse any particular policy actions, it reviews some of the reasons these issues have emerged or resurfaced, and how changes could impact markets positively or negatively.

Background

Of all the meme stock volatility that occurred in early 2021, GameStop most epitomized the frenzy of the time. On January 27, 2021, GameStop shares peaked at a closing price of more than $347 per share, up from $17 earlier the same month and just above $4 a year earlier.[1] At its peak, GameStop had a market capitalization greater than $24 billion-- more than either Clorox, Fox or Kellogg.[2] By mid-February, the stock had swooned to less than $50, but from there more than tripled by the date of this publication.[3]

On the day GameStop's stock price peaked, 93 million of its shares changed hands. Average daily trading volume during the previous calendar year was just 7 million shares.

This drastic volatility caught many market participants by surprise. The video game retail chain's business model had struggled for years and disappointing financials

[1] GameStop Historical Price Lookup, (at Jan. 27, 2020).
[2] Largest Companies by Market Cap, (As of Apr. 28, 2021).
[3] GameStop Historical Price Lookup, (at Feb. 15, 2021 and May 4, 2021)

reaffirmed the struggle at the end of 2020.[4] An activist had taken a minority stake in GameStop in September 2020 to shake up the board, but its investment did not generate the extreme volatility that erupted in January.

While many hedge funds took large short positions, retail stock trading enthusiasts, including millions on Reddit's online "Wall Street Bets" thread, poured money into the stock and placed call options to purchase the stock for a fixed price in the future.[5] Motivations varied: Some were excited by new directors possibly accelerating the transition from a traditional brick-and-mortar retail operation; others understood that a critical mass of GameStop bulls could trigger a short squeeze, forcing investors who had bet the stock would fall to purchase the shares to avoid greater losses, resulting in a cycle of upward pressure; and other long GameStop investors simply bought into the momentum fueled by hype on social media. In response to the volatility and collateral requirements, discount broker Robinhood limited clients' ability to purchase GameStop stock on January 28.[6]

GameStop and similar "meme stocks" have sparked a policy debate and serious questions about market structure issues that may have contributed to or amplified these events. The House Financial Services Committee held hearings on February 18, March 17 and May 6 on the roller-coaster trading in GameStop.[7] Additionally, the Securities and Exchange Commission (SEC) is undertaking an investigation "to ensure regulated entities uphold their obligations to protect investors and to identify and pursue potential wrongdoing" and a report is forthcoming this summer.[8]

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[4] ABC News, GameStop timeline: A closer look at the saga that upended Wall Street, (Feb. 13, 2021)
[5] *Id.*
[6] The Verge, Robinhood Will Allow Limited Buys of stocks like GameStop starting Friday, (Jan. 28, 2021).
[7] House Financial Services, Virtual Hearing - Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide, (Feb. 18, 2021)**;** Virtual Hearing - Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide, Part II, (Mar. 17, 2021) and Virtual Hearing - Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide, Part III**, (**May 6, 2021).
[8] SEC, Statement of Acting Chair Lee and Commissioners Peirce, Roisman, and Crenshaw Regarding Recent Market Volatility, (Jan. 29, 2021). See also GameStop Frenzy Prompts SEC to Weigh More Short Sale Transparency, (Feb. 17, 2021).

Payment for Order Flow

When an investor places an order to buy shares or options, there are many ways for a broker to route the order, including through third-party market makers who continuously buy and sell shares to keep markets liquid and profit from differences in bid-ask spreads. Payment for order flow (PFOF) is generally regarded as the system whereby market makers (such as Citadel Securities and Virtu Americas) pay retail brokers to send investor orders to particular market makers' platforms, which may create challenges for brokers with a responsibility to deliver "best execution" for their clients. These arrangements are what fund the commission-free fee structures that Robinhood and other brokers offer their clients.

PFOF arrangements have existed for many years. To raise awareness of conflicts of interest they present, the SEC requires that brokers disclose their policies and financial relationships with market makers.[9] Additionally, to promote competition in order execution quality, particularly on price and speed, "market centers" (broadly covering exchanges, alternative trading systems and market makers) must publish standardized, monthly reports containing statistical information about order execution.[10]

Brokers also publish quarterly reports on order routing that include the net payments they receive each month from market makers for trades executed in S&P 500 and non-S&P 500 equity and option trades.[11] Brokers are required to disclose aggregate PFOF data specifically to new customers and on an annual basis thereafter.[12] Upon request, customers can obtain from brokers the venues to which their individual orders were routed.

[9] SEC, Final rules and amendments to joint industry plans, (2019).
[10] Citibank, SEC Rule 605- Disclosure of order execution information.
[11] Virtu Financial, Rule 605 and 606 Reporting.
[12] Citibank, SEC Rule 607 Disclosure.

There have been concerns that broker reports on PFOF lack detail and that brokers require customers to submit written requests to obtain specific payments and fees.[13] In December 2020, Robinhood settled SEC charges that it made "repeated misstatements that failed to disclose the firm's receipt of payments from trading firms for routing customer orders to them, and with failing to satisfy its duty to seek the best reasonably available terms to execute customer orders."[14]

A recent federal appeals court decision in favor of TD Ameritrade reversed a 2018 district court decision due to difficulty determining who had been harmed by the broker's order routing practices.[15] SEC efforts to prod U.S. exchanges to create a consolidated audit trail may lessen the need for information on which investors are potentially harmed by PFOF arrangements.[16]

While some large retail brokers including Fidelity and Vanguard (for equity trades) do not accept payment for order flow and maintain commission-free trades, the system is often credited with enabling brokerages to eliminate or lower trading fees, making trading more accessible for retail investors. Brokers are required to provide best execution for every trade, which means the most favorable terms taking into consideration not only price but also factors such as the speed of the trade and the likelihood that the trade will be executed.

In a PFOF system, investors may also benefit from price improvements. In theory, market makers pay sellers slightly more than the bids offered on exchanges and charge buyers slightly less than the ask on the exchanges. They then keep some of the profits from these spreads, and give some portion back to the brokers who sent the trade.[17]

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[13] See for example TradeStation 607 Report, p. 16, (Q3 2020).

[14] SEC, SEC Charges Robinhood Financial With Misleading Customers About Revenue Sources and Failing to Satisfy Duty of Best Execution, (Dec. 2020).

[15] Wall Street Journal, TD Ameritrade Wins Legal Battle over Handling of Investors' Orders, (Apr., 2021).

[16] Former SEC Chairman Jay Clayton, Consolidated Audit Trail: Focus on Effective Implementation Puts CAT on Track, (Dec. 16, 2020).

[17] Matt Levine, Money Stuff: People are Worried About Payment for Order Flow, Bloomberg, (Feb. 5, 2021).

Such payments are not supposed to interfere with order routing and best execution. But some market participants have raised concerns that brokers may be tempted to route orders to the market maker that offers to pay more, rather than the market maker that would offer the best execution. Additionally, both market makers and brokers who route the trades stand to benefit from more trading even if the trades are not in the best interest of the investors.[18]

Also shaping the debate over PFOF are questions about the degree of competition among market makers and their leeway to engage in proprietary trading while in possession of advantageous information about market movements. Citadel Securities alone garnered almost 42% of total payments for order flow in 2020.[19] Virtu is the second largest player and also routes a significant number of retail orders. These wholesalers who execute retail orders get valuable data about trading to which other market participants may not have access.[20] Citadel also has a hedge-fund arm, which raises concerns about internal conflicts of interest when the firm executing orders may also have a financial position through its hedge fund arm.[21] During the GameStop volatility, there were concerns that Citadel the market maker may have had a role in influencing Robinhood's decision to curb trading because of the investment that Citadel the hedge fund had in one of GameStop's biggest short sellers. Citadel and Robinhood have both strongly denied these claims.[22]

The conflicts in the PFOF debate echo the "maker-taker" fee structure in which exchanges pay rebates to market-makers who add liquidity (for example through standing limit orders), and charge fees to those who "take" liquidity by sending market orders. CII, the Investment Company Institute and others have previously pointed out that this system can incentivize brokers routing investor orders to send order flow to trading venues commanding the most favorable rebate, rather than

[18] Letter from Senator Elizabeth Warren (D-MA) to Citadel Securities, (Feb. 16, 2021).
[19] Cheung, Brian, Payments for order flow almost tripled in 2020 at Robinhood, other brokerages, Yahoo Finance, (February 2021).
[20] Testimony of SEC Chair Gary Gensler at House Financial Services Hearing, (May 6, 2021).
[21] Letter from Senator Elizabeth Warren (D-MA) to Citadel Securities, (Feb.16, 2021).
[22] Robinhood, Citadel Fight Conspiracies Ahead of GameStop Grilling, Bloomberg, (February 17, 2021).

where investors will have best execution in terms of speed and price.[23] They supported an SEC pilot project aimed at understanding what effect a no-rebate system would have on market quality, but exchanges successfully sued the SEC in 2020 to halt the study.[24]

In addition to conflicts of interest, there are concerns about the ways PFOF has redirected liquidity off of exchanges because the largest broker dealers often execute retail orders internally. When it was created in 1975, the goals of the National Market System (NMS) were to promote fair market competition, efficient order execution, transparency in price quotation, best price execution, and direct matching of buy and sell orders to ensure that whenever possible, orders could be executed without a dealer.[25] Today, almost half of total U.S. stock market volume is traded off of exchanges, with retail trading volume almost never interacting with orders on securities exchanges.[26]

Price improvements from PFOF are quoted in relation to the National Best Bid and Offer (NBBO) benchmark. That can be misleading, though, because a significant amount of trading does not factor into the NBBO benchmark and it is hard to compare price improvements to the potential improvements that could be obtained if retail orders were able to interact with orders on exchanges. [27] In general, greater order interaction tends to narrow spreads and promote price efficiency, which is beneficial for both retail and institutional investors.

The House Financial Services Committee is considering draft legislation that would prohibit payment for order flow.[28] The bill is written broadly and seems to include all

[23]Amicus Brief in NYSE LLC v. Securities and Exchange Commission, (2019).
[24] NYSE LLC v. SECURITIES AND EXCHANGE COMMISSION, (Argued 2019, Decided June 2020).
[25] National Market System (NMS), Corporate Finance Institute, (Accessed May 4, 2021).
[26] Kelleher, Dennis, Testimony at GameStop Hearing, Better Markets, (Mar., 17, 2021).
[27] Payment for Order Flow: How Wall Street Costs Main Street Investors Billions of Dollars through Kickbacks and Preferential Routing of Customer Orders, Better Markets, (Feb. 16, 2021).
[28] Draft bill to amend the Securities Exchange Act of 1934 to prohibit payment for order flow, House Financial Services Committee, (May 2021).

payments to a broker for the routing of customer orders from brokers and exchanges, which would also encompass the maker-taker fee structure.[29]

SEC Chair Gary Gensler indicated during the House Financial Services hearing that the SEC will be evaluating PFOF and the related conflicts of interest in the context of broader market structure issues, looking at the payments between brokers and market makers, as well as the exchange rebate issue and considering the impact of concentration among market makers.

PFOF is not a universal practice; neither the United Kingdom nor Canada allow broker-dealers to route retail orders to off-exchange market makers in return for payment.[30]

Short Position Transparency

In the U.S. markets, short sellers operate behind a cloak. While the SEC requires institutional investors to disclose long positions of at least $100 million on a quarterly basis through a 13F filing, 13F disclosure is not required for short positions. Additionally, institutional investors who directly or indirectly own at least 5% of an individual public company's stock must disclose that ownership through a Schedule 13D or 13G filing.[31]

While lacking investor-specific data on short positions, the U.S. market does have aggregate data on short interest by security through rules established by the

[29] *Id.*

[30] Testimony of SEC Chair Gary Gensler at House Financial Services Hearing, (May 6, 2021).

[31] Qualified institutional investors, including pension funds and registered investment companies, can report their long holdings using the less detailed Schedule 13G as long as the stock was acquired in the ordinary course of business and without any "activist intent." Passive investors not seeking to acquire or influence control of a company can also file 13G disclosures rather than 13D disclosures if they own less than 20% of the company's stock.

Financial Industry Regulatory Authority (FINRA), which regulates broker-dealers. Twice each month, FINRA requires member firms to submit their short interest positions.[32] FINRA reports this data on an aggregate basis.[33] FINRA also publishes reports in conjunction with the stock exchanges that show daily aggregated short sale volume in individual securities and individual short sale transactions in all exchange-listed equity securities.[34]

Short selling was prohibited in the U.S. for several days at the height of the 2008 global financial crisis. The 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) required the SEC to study short sale positions and transaction reporting.[35] In 2014, the SEC published a report of its findings that focused on real-time short position reporting and indicated that that would not be cost effective.[36] Dodd-Frank also required the SEC to collect investor-specific data on short-selling activity, but that work has not been completed.[37]

In 2015, Nasdaq and the NYSE submitted separate but similar rulemaking petitions to the SEC asking the agency to require disclosure of short positions.[38] Both petitions suggested disclosure of short positions follow the Regulation 13 disclosure regime for long positions, including the timing of the disclosure and required updates.

Draft legislation circulated in 2017 and championed by short target Herbalife would have compelled disclosure when an investor's short interest reaches 5% of the

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[32] FINRA, Short Interest Reporting Instructions.
[33] SEC, Short Sale Position and Transaction Reporting, (2014).
[34] Managed Funds Association, An Introduction to Short Selling, (2018).
[35] SEC, Short Sale Reporting Study Required by Dodd-Frank Act Section 417(a)(2), (2011).
[36] SEC, Short Sale Position and Transaction Reporting, (2014).
[37] Wall Street Journal, GameStop Frenzy Prompts SEC to Weigh More Short Sale Transparency, (Feb, 17, 2021).
[38] NYSE, Petition for Rulemaking, (Oct. 7, 2015); Nasdaq, Petition for Rulemaking, (Dec. 7, 2015).

company's average daily trading volume.[39] The bill was supported by the major exchanges, the Biotechnology Innovation Organization and the National Venture Capital Association, but failed to find a sponsor and never came to a vote.[40]

In 2020, a group of academics led by John Coffee and Joshua Mitts of Columbia University submitted a rulemaking petition asking the SEC to require that investors who voluntarily disclose short positions bear a responsibility to update that information if it changes.[41] The petition is designed to help address concerns that an investor could open a large short position, publish a negative opinion or white paper about the company, and unload the position before the market digests the validity of the claims in the report and reflects the proper equilibrium price.[42]

The European Union requires an investor to inform relevant country authorities upon reaching a short position representing 0.2% of outstanding shares and at every 0.1% increment above. Public disclosure is required when the short position climbs to 0.5% of outstanding shares and every 0.1% increment above.[43] The EU's disclosure regulation is written broadly to capture any arrangement in which the investor profits from a decline in the company's stock, thereby covering commonly-used derivative securities that do not technically involve company securities.

During the early months of the Covid-19 crisis, the EU lowered the threshold for reporting to country authorities to 0.1%. Additionally, France, Italy, Belgium, Spain

[39] Institutional Investor, The Dangers of Short-Selling Disclosure, (2017).
[40] *Id.*
[41] John C. Coffee, Joshua Mitts, Petition for Rulemaking, (2020).
[42] *Id.*
[43] European Securities and Markets Authority, Short Selling.

and Greece temporarily prohibited short selling entirely, with bans ranging from one to six months.[44]

Disclosure of short positions would increase transparency in the marketplace and fix the incongruity in disclosure requirements between long positions and short positions. According to the 2014 SEC report, "[m]ore precise and timely information about short selling could help the market adjust to new information faster, promoting price efficiency and hence capital formation."[45] There may also be a certain level of market volatility based on speculation on short holdings.[46]

But while disclosures for long positions are more robust, investors holding these shares also enjoy shareholder rights, including voting rights, that short holders do not. Although investors who lend shares to facilitate a short sale lose their voting rights in the process, it is the ultimate holder who buys the security from the short seller who receives the voting right, not the short seller.[47] Thus, enhancing short-selling disclosure to match long positions may be less informative because it would not tell market participants who has the ability to influence corporate matters through director elections and other voting items.[48]

Investor-specific transparency of short positions could also make short sellers more vulnerable to short squeezes, which could drive short sellers to pursue other investment strategies at the expense of market efficiency and make it harder for

[44] Wachtell, Lipton, Rosen & Katz, Worldwide Regulatory Response to Short Selling Following Covid-19 Market Crisis, (Mar. 26, 2020).
[45] SEC, Short Sale Position and Transaction Reporting, (2014), (cited in NYSE, Petition for Rulemaking).
[46] Nasdaq, Petition for Rulemaking, (Dec. 7, 2015).
[47] BlackRock, Securities Lending Viewed through a Sustainability Lens, (Feb. 2020).
[48] Managed Funds Association, An Introduction to Short Selling, (2018).

them to accumulate positions over time.[49] Additionally, there are concerns that disclosure of short positions could allow other investors to copy or undermine another firm's strategy, which could limit their profitability and negatively affect price discovery in the market.[50] Another criticism of short position transparency is the uncertainty over motivation; while some short positions are rooted in conviction about a stock being fundamentally overvalued, others are motivated by a desire to hedge risk exposure or serve the needs of investor clients.[51] Greater transparency of short positions could lead market participants to misinterpret a short position to mean that the shorted security is over-valued, when other motivations at play.[52]

In his testimony at the House Financial Services Committee, SEC Chair Gensler said that he has directed the SEC staff to prepare recommendations on short selling disclosure and on transparency of share lending.[53]

Trade Settlement

After a trade is ordered and routed, the payment of funds and delivery of the securities (known as "settlement") takes two days. The SEC currently requires trade-date-plus-two days (T+2) settlement. The central clearinghouse, Depository Trust & Clearing Corp. (DTCC) and its subsidiaries, clear and settle trades between the buyers and sellers on U.S. markets.

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[49] Andrew Ross Sorkin, Anyone Can Manipulate the Market. Here's How to Fix That, New York Times, (2021).
[50] Nasdaq, Petition for Rulemaking, (Dec. 7, 2015).
[51] IOSCO, Report on Transparency of Short Selling, (2003).
[52] *Id.*
[53] Testimony of SEC Chair Gary Gensler at House Financial Services Hearing, (May 6, 2021).

The SEC has shortened the settlement cycle several times. Trades settled in T+5 until 1995, when regulators changed it to three days.[54] In 2017, settlement was further shortened to T+2.[55]

While a multi-day delay in settlement may seem counterintuitive for electronic markets, the system was set up to balance certain market risks.

In the current system, total transactions in a day are netted, meaning that brokers only have to pay the net total of transactions each day. According to the DTCC, this reduces the value of payments that must be exchanged by a daily average of 98%.[56] By reducing the total number of transactions per day, centralized clearing and netting increases market efficiency and decreases capital requirements for brokers. This also reduces market risk that volatile trading on any particular day will overwhelm the system.

However, there are tradeoffs to these benefits. To maintain this system, the DTCC requires brokers to pay collateral for counterparty risk. When trading is volatile, collateral can spike, straining liquidity. Additionally, a sudden increase in the price of a stock during the two-day settlement period may cause a broker to sustain losses, or, when trade volumes surge, be unable to purchase the stock at clearance. Collateral requirements were the main reason that Robinhood and other brokers limited trading in GameStop and other stocks at the height of the meme trading frenzy.[57]

[54] DTCC, Project Ion Case Study, (May 2020).
[55] *Id.*
[56] DTCC, Leading the Industry to Accelerated Settlement, (Feb. 2021).
[57] Barrons, Why Did Robinhood Stop GameStop Trading? Everything to Know, (Jan. 2021).

Also, multiple transactions in any stock during the two-day settlement period can create complexity for share reconciliation. In particular, it can be difficult for institutional investors who lend their shares to know who owns them at any particular time and therefore who has the right to vote the shares.

While accelerating market settlement has been discussed in recent years, GameStop brought this issue to the forefront because of the extreme volatility and the steep price increases that led to high margin calls and significant differences in price between the time of purchase and time of settlement. On January 28, the morning after GameStop's price peaked, the DTCC asked Robinhood to post about $3 billion in margin, although it ultimately accepted about $700 million.[58]

When the SEC shortened the settlement time in 2017, it stated that further reductions were then not feasible. But the agency committed to a report three years later to assess the impact of the move to T+2 and the potential impacts of further shortening the cycle.[59] This report is expected to be released soon.

In a May 2020 report, the DTCC said that its current infrastructure supports T+1 and limited T+0 settlement, but that obstacles including "market behavior, legacy infrastructure and operational processes" make it "difficult to accelerate further without a lengthy industry effort – one can only move as fast as the slowest adopter."[60]

In February 2021, the DTCC released a plan to lower settlement time to T+1 over a two-year time frame. The clearinghouse has estimated that the move to T+1 could

[58] Bloomberg, Robinhood's Collateral-Crunch Explanation Puzzles Wall Street, (Feb. 6, 2021).
[59] SEC Final Rule, Securities Transaction Settlement Cycle, (2017).
[60] DTCC, Project Ion Case Study, (May 2020).

lower margin requirements by 41%. Kenneth Griffin, CEO of Citadel Securities, also supported T+1 settlement in his testimony.[61] SEC Chair Gary Gensler also endorsed shortening the settlement cycle, saying that he believes it would "reduce costs and risks in our markets" and said that he has directed the SEC staff to draft a proposal on the subject for Commission review.[62]

The DTCC report said that most of the concern from market participants related to accelerating settlement beyond T+1.[63] In netted T+0 settlement, trades would be settled at the end of the same trading day, rather than real-time settlement, which would be instant and without netting.

Robinhood CEO Vlad Tenev has publicly supported real-time settlement, and he blamed T+2 settlement latency for the high collateral requirements and the liquidity crunch that led the firm to suspend trading in GameStop stock in late January.[64] Real-time settlement would require that all transactions be funded and cleared on a transaction-by-transaction basis. While this would eliminate some market risks related to sudden price changes, it would also eliminate the liquidity benefits for brokers.[65] Transaction volumes would increase significantly, which would likely increase the number of failed transactions.[66]

Moving to real-time settlement would also require real-time share reconciliation and real-time records of ownership. While this may be possible eventually, there is

[61] Testimony of Kenneth C. Griffin Founder and CEO of Citadel and Founder and Principal Shareholder of Citadel Securities Before the Committee on Financial Services United States House of Representatives, (Feb. 18, 2021).
[62] Testimony of SEC Chair Gary Gensler at House Financial Services Hearing, (May 6, 2021).
[63] DTCC, Leading the Industry to Accelerated Settlement, (Feb. 2021).
[64] Axios, Explaining GameStop hearing terms: Settlement times, (Feb. 18, 2021).
[65] Axios, Explaining GameStop hearing terms: Settlement times, (Feb. 18, 2021).
[66] *Id.*

substantial work to be done to design a system, probably based on distributed ledger (blockchain) technology, and demonstrate that it is sufficiently stable and secure.

Most advanced capital markets have converged on T+2 settlement for equities.[67] In China, however, the settlement cycle is quicker, with shares settled the same day, while the transfer of funds happens on a T+1 basis, in a "deliver-before-pay method."[68] India's securities regulator, the Securities and Exchange Board of India (SEBI), has also recently proposed moving to T+1, but the change has not yet been implemented.[69] Australian regulators and the Australian securities exchange are working on a plan to move to a blockchain system of securities settlement, which would have the capacity to enable real-time settlement, but the plan has been postponed a few times, most recently to April 2023.[70]

Conclusion

There are a number of other market issues of interest to retail and institutional investors stemming from the meme stock spectacle of early 2021. In addition to payment for order flow, short position transparency and settlement latency, SEC Chair Gensler noted in his May 6 testimony concerns relating to market concentration of both wholesalers and brokers, liquidity challenges and broader market risks from individual firm losses.[71] Gensler and others have also raised

[67] Charles Schwab, Equity and Currency Trade Settlement Cycles in Foreign Markets.
[68] World Economic Forum, China Asset Management at an Inflection Point, pg. 31-32, (July 2020).
[69] Economic Times, T+1? Your stock trade settlement set to get quicker, Economic Times, (Aug. 2020).
[70] KPMG, ASX extends timetable for CHESS Replacement, (July 2020); Ledger Insights, ASX delays blockchain settlement system to 2023, (Oct. 2020).
[71] Testimony of SEC Chair Gary Gensler at House Financial Services Hearing, (May 6, 2021).

questions about the gamification of stock trading and social media's intersection with capital markets.

Along with the expected SEC report later this year on the GameStop takeaways and agency staff recommendations on transparency of short selling and shortening the settlement cycle, Gensler indicated that the SEC will also consider recommendations on disclosure of security-based swaps, examine market concentration of wholesalers, open a public comment period about the gamification of stock trading and re-evaluate SEC rules, including Regulation Best Interest, in light of current technology.[72]

[72] *Id.*