

October 10, 2023

Ms. Vanessa A. Countryman
Secretary
U.S. Securities and Exchange Commission
100 F Street NE
Washington, DC 20549-1090

Re: *File No. S7-12-23*
Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers

Dear Ms. Countryman:

We appreciate the opportunity to comment on the Securities and Exchange Commission’s proposed rule addressing “Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers,” which seeks to “eliminate, or neutralize the effect of, certain conflicts of interest associated with broker-dealers’ or investment advisers’ interactions with investments through these firms’ use of technologies that optimize for, predict, guide, forecast, or direct investment-related behaviors and outcomes.”¹ The Cato Institute is a public policy research organization dedicated to the principles of individual liberty, limited government, free markets, and peace, and the Center for Monetary and Financial Alternatives focuses on identifying, studying, and promoting alternatives to centralized, bureaucratic, and discretionary financial regulatory systems. We are the Center’s director of financial regulation studies and financial technology policy analyst, and the opinions we express here are our own.

The Commission should withdraw this proposed rule. Rather than being “technology-neutral” as the Commission claims, the proposed rule is instead indiscriminately hostile to the use by broker-dealers and investment advisers of almost all technology that has some connection to retail investors. In addition to imposing heavy burdens on any firm that chooses to use such technology—or has already been using such technology for decades—this proposed rule goes an enormous step further by requiring, *not disclosure* of any conflict-of-interest posed by the

¹ Notice of Proposed Rule, “Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers,” SEC Release Nos. 34-97990, IA-6353; File No. S7-12-23 at 1, available at <https://www.sec.gov/files/rules/proposed/2023/34-97990.pdf> (“Notice”).

technology, but “elimination or neutralization” of the conflict presented. This requirement is at odds with existing standards of care applicable to broker-dealers and investment advisers in Regulation Best Interest and adviser fiduciary duties, respectively, and wrongfully judges investors incapable of digesting and evaluating disclosures about technology. The overbreadth of the proposed rule’s definition of “covered technology” makes clear that such a requirement is unwarranted. But even were the rule cabined to the more complex technologies that the Commission couches the rule as addressing, such as artificial intelligence (AI), requiring conflict remediation rather than disclosure is not justified.

This overly broad and overly burdensome proposed rule will deter broker-dealers and investment advisers from using technology, undertaking technological development, or adopting new technology. That is a highly undesirable outcome. Technology that would be subject to this proposed rule has brought advances to the provision of financial services, creating efficiencies (both economic and non-economic) that have opened market participation to a broader and more diverse set of retail investors. This proposed rule will contribute to reversing recent gains in retail investor participation and will isolate the financial services sector from technological advancements that are familiar to investors in their roles as consumers.

None of this is to say that the use of technology is risk-free. Rather, the Commission already has a host of rules that apply to interactions with investors and firm governance, regardless of the means or methods by which investor-facing actions have been initiated, undertaken, or supported. These existing rules provide a better framework for addressing risks inherent in the use of technology.²

Technology Has Made Investing More Accessible for Retail Investors

While the Commission acknowledges in the proposed rulemaking that the use of technology can bring “benefits in market access, efficiency, and returns,”³ it fails to give appropriate weight to the beneficial role that technology has played—particularly recently—in making investing more accessible for a broader range of investors. The Commission similarly fails to give appropriate weight to the potential detriment of depriving investors of access to technological advancements.

Any discussion about the effect of technology on investors must be framed by the simple fact that investor-facing technological advancement, including digital accessibility, has opened our

² Although the Commission allowed for a period of 60 days from the Notice’s publication in the Federal Register for public comment, given the breath and complexity of this proposal, in addition to the numerous other proposals that the Commission has pending, the time for public comment is not adequate. In addition, were the Commission to view this proposal as requiring substantial revision, after review of the public comments on this proposed rule, it would be appropriate to re-propose a revised rule and solicit public comment. Again, given the breadth and complexity of this proposal, it is impossible to address comments at this point that would be relevant to any substantially revised proposal.

³ Notice at 6.

markets to more investors—and a wider range of investors—than traditional means of investing. To put a finer point on it: investing in the stock market is an important path to wealth for individual investors, and technology has played an important role in putting less wealthy, more diverse, and younger people on that path.⁴

Retail investors have flowed into the market whenever barriers to access have decreased. While barriers are often thought of in terms of economic costs—like the cost of commissions—these barriers are also non-economic, including the time and energy (both physical and psychic) that an investor must expend to engage with their investments. Recent innovations in trading, including app-based platforms and “zero-commission” trading—which heavily leverage technology that would fall under the Commission’s proposed rule—have decreased both economic and non-economic costs to investors. And investors have taken advantage of a long line of improvements in features made possible by the digital age, including self-directed web-based trading, automated account notifications, and easy-to-use digital platforms.

Importantly, strides have been made in recent years to expand market access to the less wealthy, younger, and more racially diverse individuals who have been traditionally left out of the opportunities to grow wealth afforded by the stock market.⁵ The recent upward trend in investors holding non-retirement investment accounts has been concentrated in certain demographic groups, including significant increases for investors under the age of 35 and investors who do not identify as white.⁶ Investors with low assets under management and those without college degrees also have participated in the market in higher numbers than before.⁷

More specifically, a study by the FINRA Investor Education Foundation and NORC at the University of Chicago found that investors who opened a taxable investment account for the

⁴ See Jennifer J. Schulp, “GameStop and the Rise of Retail Trading,” *Cato Journal* 41 (Fall 2021), available at <https://www.cato.org/cato-journal/fall-2021/gamestop-rise-retail-trading>; see also Sergio Alberto Gramitto Ricci & Christina M. Sautter, “Harnessing the Collective Power of Retail Investors,” *SSRN* (August 11, 2023), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4147388.

⁵ Lydia Saad and Jeffrey Jones, “What Percentage of Americans Own Stock?” *Gallup* (September 13, 2020), available at <https://news.gallup.com/poll/266807/percentage-americans-owns-stock.aspx>. For data distributed by income percentile, race or ethnicity, or education, see Federal Reserve Board of Governors, “2019 Survey of Consumer Finances,” *Survey of Consumer Finances, 1989-2019* (November 4, 2021), available at <https://www.federalreserve.gov/econres/scf/dataviz/scf/chart/index.html>.

⁶ Judy T. Lin, et al., “The Changing Landscape of Investors in the United States: A Report of the National Financial Capability Study,” *FINRA Investor Education Foundation* (December 2022) at 3, available at <https://www.finrafoundation.org/sites/finrafoundation/files/NFCS-Investor-Report-Changing-Landscape.pdf> (“FINRA NFCS Study”) (noting an increase in the percentage of investors holding investments outside of retirement accounts from 30% in 2015 to 35% in 2021 and identifying an increase of 9% for young investors and 8% for non-white investors between 2015 and 2021).

⁷ Broadridge, “U.S. Investor Study: Investor insights you need to know now,” *Broadridge* (2023) at 5, available at https://www.broadridge.com/_assets/pdf/broadridge-insights-on-us-investor-data-study.pdf (“Broadridge Study”) (also noting that there has been an increase in the percentage of investor households across all generations).

first time in 2020 were younger, had lower incomes, and were more racially diverse than those who had previously opened such accounts.⁸ These effects appear to be lasting; a follow-up study in 2022 found that 79% of investors who had opened accounts in 2020 were still in the market.⁹

The 2020 Ariel-Schwab Black Investor Survey confirmed increasing investor diversity: three times as many young Black investors entered the market for the first time in 2020 as compared to young white investors.¹⁰ And the percentage of young Black investors has continued to grow; the 2022 Ariel-Schwab Black Investor Survey found that 60% of those under 40 now participate in the stock market, compared to only 57% of younger white investors.¹¹

New investors appear to have taken advantage of many recent innovations that have made trading easier for them. For example, nearly half of new investors surveyed indicated that they accessed their account primarily through a mobile app.¹² New investors are not alone in using such technology, however; all investors primarily access their accounts digitally, either through an app or on a website.¹³ Use of mobile apps for investors has increased substantially since 2018, with 44% of investors placing trades on a mobile app compared to 30% in 2018.¹⁴

This use of apps and website has come at the expense of trades placed through financial professionals, which have fallen in recent years.¹⁵ A higher percentage of investors across all

⁸ See Mark Lush, et al., “Investing 2020: New Accounts and the People Who Opened Them,” *Consumer Insights: Money & Investing* (February 2021), available at https://www.finrafoundation.org/sites/finrafoundation/files/investing-2020-new-accounts-and-the-people-who-opened-them_1_0.pdf (“FINRA/NORC 2020 Study”).

⁹ Angela Fontes, et al., “Where Are They Now? Following Up With the New Investors of 2020,” *Consumer Insights: Money & Investing* (March 2023), available at <https://www.finrafoundation.org/sites/finrafoundation/files/Where-Are-They-Now-Following-Up-With-The-New-Investors-of-2020.pdf> (“FINRA/NORC 2023 Study”).

¹⁰ Charles Schwab, “New Ariel-Schwab Black Investor Survey Shows Black Americans Continue to Trail Their White Counterparts in Building Wealth,” *Charles Schwab*, available at <https://www.aboutschwab.com/ariel-schwab-black-investor-survey-2021>.

¹¹ Ariel Investments & Charles Schwab, “2022 Black Investor Survey: Report of Findings,” *Ariel-Schwab Black Investor Survey* (April 2022) at 6 and 10, available at https://content.schwab.com/web/retail/public/about-schwab/Ariel-Schwab_Black_Investor_Survey_2022_findings.pdf (“Ariel-Schwab 2022 Survey”) (Interestingly, the 2022 Ariel-Schwab Black Investor Survey found that the participation gap in the stock market generally has narrowed in recent years, attributable in part to decreasing participation in the market by white investors).

¹² FINRA/NORC 2020 Study, *supra* note 8.

¹³ *Id.*; see also Victoria Rodriguez, “CNBC Momentive Poll: ‘Invest in You’ August 2021,” *Survey Monkey* (August 11, 2021), available at <https://www.surveymonkey.com/curiosity/cnbc-invest-in-you-august-2021/> (finding that 63 percent of new investors and 57 percent of young investors use an app to trade); Bank of New York Mellon, “The State of the U.S. Retail Investor: Insights & Implications,” *2022 BNY Mellon Retail Investor Survey* (October 2022), available at <https://www.bnymellon.com/content/dam/bnymellon/documents/pdf/insights/the-state-of-the-us-retail-investor.pdf>.

¹⁴ FINRA NFCS Study, *supra* note 6 at 10. Use of websites are also up, to 62% in 2021 from 55% in 2018. *Id.*

¹⁵ *Id.*

age groups now use the online discount channel than they did in 2018.¹⁶ Younger investors and newer investors, as well as those with lower portfolio values, are more likely to trade on a mobile app.¹⁷

In sum, technology has contributed to bringing a more diverse set of investors to the markets in recent years. This outcome should not be glossed over in an analysis of the proposed rule. Any change that would jeopardize the advancements brought by technology must be justified with benefits that outweigh the risks of returning investment to the province of the wealthy few.

The Proposed Rule Is Unworkable and Will Hamstring the Use of Technology by Broker-Dealers and Investment Advisers to the Detriment of Investors

While couched alternately as a rule aimed at addressing the use of artificial intelligence by broker-dealers and investment advisers or addressing the “gamification” of trading, the scope of this proposed rule reaches much farther than addressing novel or cutting-edge technologies.¹⁸ The proposed rule’s definition of “covered technology,” which triggers onerous review and documentation requirements, is wholly inclusive of almost any form of computation that arguably impacts a retail investor, and the broad definition of “conflict of interest,” which triggers the proposed rule’s requirement to “eliminate or neutralize” the conflict, is inconsistent with the Commission’s disclosure-forward treatment of conflicts. The result is an

¹⁶ Broadridge Study, *supra* note 7 at 8.

¹⁷ FINRA NFCS Study, *supra* note 6 at 10. See also Robert Farrington, “75% of Americans are Familiar with Investing Apps, And Most Prefer the Monthly Fee Service Model,” *The College Investor* (September 18, 2021), available at <https://thecollegeinvestor.com/34886/investing-app-survey-2020/>; Greg Iacurci, “Young Investors are Going Digital. Financial Advisors Need to Adapt with Them,” *CNBC* (October 14, 2020), available at <https://www.cnbc.com/2020/10/14/millennials-gen-z-want-robo-advisors-and-digital-financial-advice.html>. In addition, those who have been traditionally excluded from investing—like women, minorities, and the young—may prefer apps to placing trades through professionals. See Veronica Dagher, “Many Women of Color Use Social Media, Peers for Investment Advice,” *Wall Street Journal* (May 8, 2021), available at <https://www.wsj.com/articles/many-women-of-color-use-social-media-peers-for-investment-advice-11620471600>. Some studies have found that Black investors are less likely than white investors to use financial advisers. Ariel-Schwab 2022 Study, *supra* note 11 at 16 (showing 28% of Black investors using financial advisers compared to 36% of white investors); Eric T. Ludwig, Stuart J. Heckman & Megan McCoy, “The Influence of Risk, Financial Literacy, and Trust on Financial Advice-seeking Behavior in a Cross-racial Examination,” *Journal of Financial Planning* 36 (February 2023), available at <https://tinyurl.com/y9v69nhb>. And Black investors exhibit a stronger preference for demographically similar advisers, which may make it more difficult for some to find a financial professional given the general lack of diversity in the industry. Ariel-Schwab 2022 Study, *supra* note 11 at 16; CFP Board, “CFP Board Exceeds 95,000 CFP® Professionals, Increases Gender And Racial Diversity Of Financial Planning Profession,” <https://www.cfp.net/news/2023/01/cfp-board-exceeds-95000-cfp-professionals> (as of 2022, 1.9% of CFP professionals are Black, 2.9% are Hispanic, and 4.1% are Asian); but see Christopher P. Clifford, William C. Gerken, & Tian Qiu, “Racial Concordance in the Market for Financial Advice,” *The Review of Corporate Financial Studies* (February 2023), available at <https://doi.org/10.1093/rcfs/cfad005> (finding that the impact of adviser-client racial concordance has only a modest effect on whether someone invests in the stock market).

¹⁸ Gary Gensler, “Statement on Conflicts of Interest Related to Uses of Predictive Data Analytics,” Statement (July 26, 2023), available at <https://www.sec.gov/news/statement/gensler-statement-predictive-data-analytics-072623>.

unworkable rule that threatens the use of most technology in the broker-dealer and investment adviser industries—technology that has unquestionably led to greater market access for retail investors and efficiencies in the provision of financial services.¹⁹

The Definition of Covered Technology Is All-Consuming

The proposed rule defines a “covered technology” to be “an analytical, technological, or computational function, algorithm, model, correlation matrix, or similar method or process that optimizes for, predicts, guides, forecasts, or directs investment-related behaviors or outcomes.”²⁰ The Commission provides more guidance as to the breadth of this definition, explaining that it is intended to “include widely used and bespoke technologies, future and existing technologies, sophisticated and relatively simple technologies, and ones that are both developed or maintained at a firm or licensed from third parties.”²¹ The definition is also intended to “capture a broad range of actions” including “providing investment advice or recommendations,” and “design elements, features, or communications that nudge, prompt, cue, solicit, or influence investment-related behaviors or outcomes from investors.”²²

The breadth of this definition is staggering. As Commissioner Uyeda pointed out, the definition likely covers the use of calculators—and maybe even abacuses—by broker-dealers or investment advisers.²³ This proposed rule, obviously, sweeps far beyond any issues presented by artificial intelligence, and asks broker-dealers and investment advisers to revisit essentially every use—or “*reasonably foreseeable use*”²⁴—of technology by the firm to determine whether it presents a “conflict of interest” as required by the rule. The process for such an evaluation must be documented, and a record of the evaluation must be maintained.²⁵

¹⁹ For the purposes of this comment, we assume that the Commission has the authority to promulgate this rule. The existence of such authority, however, is far from clear, and the Commission must cabin its rulemaking to the statutory authority that it has been granted. See, e.g., American Council of Life Insurers, et al., Comment Letter Re: File No. S7-12-23 Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers (September 12, 2023), available at <https://www.sec.gov/comments/s7-12-23/s71223-258279-605062.pdf>; Andrew Vollmer, Comment Letter Re: File No. S7-12-23 Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers (October 2, 2023), available at <https://www.mercatus.org/research/public-interest-comments/relevant-statutes-do-not-authorize-predictive-data-analytics>.

²⁰ Notice at 234, citing proposed § 240.151-2(a); *id.* at 241, citing proposed § 275.211 (h)(2)-4(a).

²¹ *Id.* at 43.

²² *Id.*

²³ Mark Uyeda, “Statement on the Proposals re: Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers,” Statement (July 26, 2023). Available at https://www.sec.gov/news/statement/uyeda-statement-predictive-data-analytics-072623#_ftnref2 (“Uyeda Statement”).

²⁴ Notice at 235, citing proposed § 240.151-2(b)(1); *id.* at 241, citing proposed § 275.211(h)(2)-4(b).

²⁵ *Id.* at 235-36, citing proposed § 240.151-2(c) and § 240.17a-3; *id.* at 239, citing proposed § 275-404-2(a).

Little justification is provided for imposing such onerous requirements on long-used technologies, such as Excel spreadsheets, especially where, as described in more detail below, the outputs of such technologies are generally subject to existing rules governing their interaction with investors, including conflicts of interest. Rather than being “technology neutral,” as the proposal claims,²⁶ the proposed rule exhibits a generalized hostility toward technology.²⁷

The Definition of Conflict of Interest Is Too Broad

Once a broker-dealer or investment adviser has identified a covered technology in use, the broker-dealer or investment adviser must “evaluate” it to “identify any conflict of interest associated with that use or potential use.”²⁸ A “conflict of interest” is defined as existing when a broker-dealer or investment adviser “uses a covered technology that takes into consideration an interest of the” broker-dealer or investment adviser.²⁹ This definition of “conflict of interest” contorts the generally understood meaning of the word “conflict” to simply identify whether the technology takes into account any interest of the broker-dealer or investment adviser, not whether those interests are actually in opposition. This redefinition is particularly problematic because the vast majority of uses of technology related to “investment behaviors or outcomes” will implicate a firm’s interest simply because the interest of a broker-dealer is in having an individual trade (and because an investment adviser has an interest in amassing assets under management). Thus, virtually all covered technologies will present some form of “conflict of interest” because they will be employed in service of the firm’s broader goal of inducing some form of investment behavior or outcome, triggering further review and documentation requirements.

The Proposed Rule’s Requirement to “Eliminate or Neutralize” Conflicts of Interest Is Not Justified

The proposed rule requires that a broker-dealer or investment adviser to determine if any conflict of interest “places or results in placing the interest of the” broker-dealer or investment adviser “ahead of the interests of investors.”³⁰ And if so, the broker-dealer or investment adviser must “eliminate, or neutralize the effect of, any conflict of interest.”³¹ This requirement

²⁶ Notice at 40.

²⁷ See Hester M. Pierce, “Through the Looking Glass: Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers Proposal,” Statement (July 26, 2023) (“Peirce Statement”), available at <https://www.sec.gov/news/statement/peirce-statement-predictive-data-analytics-072623>.

²⁸ Notice at 235, citing proposed § 240.151-2(b)(1); *id.* at 241, citing proposed § 275.211(h)(2)-4(b)(1).

²⁹ *Id.* at 234, citing proposed § 240.151-2(a); *id.* at 241, citing proposed § 275.211(h)(2)-4(a).

³⁰ *Id.* at 235, citing proposed § 240.151-2(b)(2); *id.* at 242, citing proposed § 275.211(h)(2)-4(b)(2).

³¹ *Id.* at 235, citing proposed § 240.151-2(b)(3); *id.* at 242, citing proposed § 275.211(h)(2)-4(b)(3).

is a departure from the standard of disclosing conflicts to investors so that they may make their own informed decisions. It is unjustified.

Focusing on the enormous benefits that the use of technology by broker-dealers and investment advisers has brought to retail investors is not meant to imply that the use of technologies is risk-free. But the extensive regulatory apparatus already in place—focused on interactions with and impacts on the investor rather than on a financial service’s use of any particular method of doing so—already addresses most, if not all, of the relevant risks. Moreover, layering this technology-specific set of requirements on top of those rules inappropriately raises the requirements of Regulation BI and investment adviser fiduciary duties. The fact that the Commission characterizes some technology—but hardly all of the technology subject to this proposed rule—as requiring a heightened standard due to its opacity, complexity, and scale does not justify the requirements of the proposed rule.

First, conflicts of interest—true conflicts in which a broker-dealer’s or investment adviser’s interest is placed ahead of the investor’s—are addressed by existing rules. As Commissioner Uyeda pointed out, the proposed rule “focuses on a topic that has already been thoroughly covered and very recently at that: the conflicts of interest of broker-dealers and investment advisers.”³² Rules relating to that topic have, appropriately, focused on the impact on the customer, rather than the technology (or lack thereof) that the broker-dealer or investment adviser uses.

The most obvious rules implicated by such conduct are those relating to customer recommendations. In the broker-dealer context, such recommendations are governed by Regulation Best Interest, which was finalized in 2019, and specifically does not hold broker-dealers to a fiduciary standard.³³ The suggestion that the proposed rule’s conflict-of-interest elimination/neutralization requirements will somehow assist broker-dealers in meeting their obligations under Regulation BI turns the existing order on its head³⁴; Regulation BI generally requires less of broker-dealers in requiring brokers to act in the investor’s best interest in making a recommendation, but not requiring the elimination of conflicts. Indeed, conflicts are required to be *disclosed* on Form CRS. As members of Congress have observed, this proposed rule will have the effect of raising the standard of care for brokers when using any technology well above and beyond the requirements of Regulation BI.³⁵ This sort of back-door revision of Regulation BI is problematic, especially given how recently Regulation BI was implemented. And

³² Uyeda Statement, *supra* note 23.

³³ Regulation Best Interest: The Broker-Dealer Standard of Conduct, Exchange Act Release No. 34-86031 [84 FR 33318 (July 12, 2019)], available at <https://www.sec.gov/rules/final/2019/34-86031.pdf>.

³⁴ Notice at 107.

³⁵ Ann Wagner, et al., Public letter Re: Data Analytics Proposal (September 22, 2023), available at <https://wagner.house.gov/sites/evo-subsites/wagner.house.gov/files/evo-media-document/letter-to-chairman-gensler-re-data-analytics-proposal-9.22.23.pdf>.

the Commission provides little insight into why recommendations made with technology should be subject to a higher standard of care than recommendations made without technology. (The same problem exists with respect to investment adviser fiduciary duties, which also generally are not interpreted to require the elimination of a conflict, but rather require disclosure of it.³⁶)

While it is true that Regulation BI applies to recommendations by brokers, that hardly puts technology outside of the regulation's reach. As the Commission has recognized, the facts-and-circumstances analysis for determining whether a communication constitutes a recommendation is flexible enough to accommodate communications with customers made with the assistance of technology.³⁷

This proposed rule, however, is also intended to cover interactions that do not rise to the level of a recommendation.³⁸ While the Commission frets that such interactions are outside of the reach of Regulation BI, the Commission brushes off the application of a multitude of other rules that may apply depending on the interaction with the customer. Rules that apply to communications with the public, including FINRA Rule 2210 and the Commission's investment adviser marketing rules, apply equally to digital communications as they do to other types of communications with investors and potential investors. These rules generally encompass a wide variety of communications and are aimed at the prohibition of false, misleading, or otherwise unfairly presented information. The anti-fraud provisions of the federal securities laws, of course, are also aimed at preventing fraudulent misconduct. Where a particular technology produces outputs related to investment-related behaviors or outcomes that result in deceptive or manipulative interactions with customers, these rules can be applied to prohibit or limit its use.³⁹

Similarly, the supervision of technology fits within the well-understood framework for supervision. The Commission (along with FINRA) has provided substantial guidance to broker-dealers and investment advisers regarding the supervision of technology service providers that are no less applicable to the supervision of technology that has retail-investor-facing components.⁴⁰

³⁶ See Notice at 106 (discussing proposed rule's interaction with investment adviser fiduciary standard).

³⁷ "Request for Information and Comments on Broker-Dealer and Investment Adviser Digital Engagement Practices," Securities and Exchange Commission, Release Nos. 34-92766; IA-5833, File No. S7-10-21 at 31, available at <https://www.sec.gov/rules/other/2021/34-92766.pdf>; see also Jill E. Fisch, "GameStop and the Reemergence of the Retail Investor," *U. of Penn. Inst. for Law & Econ Research Paper* no. 22-16 (April 11, 2022) at 42-43, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4049896 ("Existing broker-dealer regulations limit brokers' ability to engage in this type of targeting...A key issue in the determination of whether Reg BI applies is the degree to which a communication is individually tailored.").

³⁸ Notice at 54, 159-160, and 177-178.

³⁹ To the extent that the Commission were to revise this rule proposal to apply only to interactions that do not rise to the level of a recommendation, burdens that exceed the requirements under Regulation Best Interest or fiduciary standards for recommendations are not justified.

⁴⁰ See, e.g., FINRA, "Artificial Intelligence (AI) in the Securities Industry: A Report from the Financial Industry Regulatory Authority," *FINRA* (June 10, 2020) at 12, available at <https://www.finra.org/rules-guidance/key->

Second, disclosure is the better solution where judging whether the broker-dealer's or investment adviser's interest is preferred over the investor's is not subject to a clear-cut analysis. In particular, a broker-dealer or investment adviser is required under the proposed rules to determine if the technology places the interest of the broker-dealer or investment adviser *ahead of the interests of investors*. To make that determination necessarily requires a judgement about what the investor's interest is, but making such a judgment is complicated by the fact that investors, as a group, do not necessarily have unified interests.

For example, the Commission expresses concern that technology could drive investors to trade against their interest and to the benefit of the firm.⁴¹ Regardless of whether that concern is well-founded, trading frequency is not one-size-fits-all, even for investors who may be similarly situated. More frequent trading should not be confused with risky day-trading strategies, and, in some circumstances, may be preferable to a standard buy-and-hold mentality.⁴²

Similarly, some investors may view investing differently than what is captured on a risk-tolerance and investing goals form: 59% of investors ages 18 to 34 cited entertainment as a reason to invest, and 58% of the same age group cited investing as a social activity.⁴³

Moreover, it is not at all clear that technological interventions will have uniform effects on investor behavior. What motivates some investors, may demotivate others or have no effect at all.⁴⁴

Under such circumstances, a requirement to "eliminate" a conflict will likely result in an over-inclusive excising of technologies that would benefit some investors (regardless of whether the firm also benefits).

As Commissioner Peirce recognized, the proposed rule unfortunately can best be described as reflecting the "Commission's loss of faith in one of the pillars of our regulatory infrastructure: the power of disclosure and the corresponding belief that informed investors are able to think

[topics/fintech/report/artificial-intelligence-in-the-securities-industry](#) ("FINRA AI Report") (FINRA Rule 3110 "applies to all activities of a firm's associated persons and its businesses, regardless of the use of technology. As such, in supervision activities related to AI applications, firms have indicated that they seek to understand how those applications function, how their outputs are derived, and whether actions taken pursuant to those outputs are in line with the firm's legal and compliance requirements.").

⁴¹ Notice at 177-178.

⁴² See David Saito-Chung, "Still the No. 1 Rule for Stock Market Investors: Always Cut Your Losses Short," *Investor's Business Daily* (February 1, 2021), available at <https://www.investors.com/how-to-invest/investors-corner/still-the-no-1-rule-for-stock-investors-always-cut-your-losses-short/>; Kate Stalter, "Why Investors Should Never Simply 'Buy and Hold,'" *Entrepreneur* (June 11, 2021), available at <https://www.entrepreneur.com/article/374323>.

⁴³ FINRA NFCS Study, *supra* note 6 at 15. Indeed, among those who traded shares of GameStop, AMC, or Blackberry in 2021, 71 percent cited entertainment and 66 mentioned social activity as a reason for investing. *Id.*

⁴⁴ Stephen Johnson, "Gamification: Can Video Games Change Our Money Habits?" *Big Think* (August 3, 2021), available at <https://bigthink.com/neuropsych/gamification/>; Goncalo Baptista and Tiago Oliveira, "Why So Serious? Gamification Impact in the Acceptance of Mobile Banking Services," *Internet Research* 27 (February 2017), available at <https://www.researchgate.net/publication/313362066>.

for themselves.”⁴⁵ The better path is to provide investors with disclosure so that they can make the informed choice to take advantage of such technology, even though the firm also may benefit.

Third, the Commission’s conclusion that the greater scale and scope of “predictive data analytics” (PDA) activity materially enhances conflict-of-interest risks is unfounded, as is its corollary conclusion that disclosure remedies are inadequate to confront these risks.⁴⁶

While the Commission’s belief that conflict-of-interest risk increases with the scale and scope of PDA technology takes different forms—and is stated with varying degrees of specificity and clarity—it appears that in the Commission’s view, the enhanced scale and scope of PDA technology can heighten conflict-of-interest risk by enabling firms to (1) reach broader audiences, (2) exploit individual investors through behavioral marketing techniques, and (3) generate new forms of conflicts of interest. Each of these theories contains significant flaws and shortcomings.

- Reaching a Broader Audience. The Commission suggests the increased scale and scope of analytics activity increases the total potential harm to investors from conflicts of interest simply by enabling firms to reach a “broad audience” and create a greater number of investor interactions.⁴⁷ Yet even if one assumes for the sake of argument that the investor activity the Commission describes can be harmful, the idea that greater aggregate activity presents novel risks does not hold up to scrutiny. Specifically, this concept does not explain why reaching a greater number of investors increases the risk of harm to any individual investor in a given interaction. A greater aggregate volume of transactions does not itself change the nature of any particular investor interaction and therefore does not require heightened or novel remediation strategies to address potential conflicts of interest between a firm and an individual investor.
- Behavioral Marketing and Investor Exploitation. The Commission also is concerned that the greater scale and scope of PDA technology can heighten the impact of conflicts of interest within individual investor interactions.⁴⁸ Specifically, the Commission views broker-dealers’ and investment advisers’ use of techniques common to targeted and

⁴⁵ Peirce Statement, *supra* note 27.

⁴⁶ See Notice at 60-61, 104, 106, 144-145, and 149.

⁴⁷ *Id.* at 6.

⁴⁸ *Id.* at 29 (“While the risk of poor data quality or skewed data is not unique to AI, the ability of PDA-like technologies used in investor interactions to process data more quickly than humans, and the potential for technology to disseminate the resulting communications to a mass market, can quickly magnify conflicts of interest and any resulting negative effects on investors.”) and 145 (“Further, PDA-like technologies can have the capacity to process data, scale outcomes from analysis of data, and evolve at incredibly rapid rates. These traits could rapidly and exponentially scale the effects of any conflicts of interest associated with such technologies, which could impact the markets more broadly”).

behavioral marketing⁴⁹—e.g., analyzing consumer data and optimizing user interfaces (UI) and experiences (UX) based on users’ revealed preferences—as practices that “exploit common biases or tendencies in investors” to advance firms’ interests at investors’ expense.⁵⁰ That a firm will seek to understand what motivates its customers in order to increase the relevance of its marketing efforts long predates today’s PDA technologies.⁵¹

In addition, research on the impact of modern targeted and behavioral advertising techniques (on consumers generally and in the financial services sector specifically) complicates and calls into question the Commission’s pat story of investor exploitation at the hands of firms deploying PDA technology. With respect to personalized digital marketing strategies generally, findings from researchers at the Yale School of Management and KAIST College of Business in Seoul suggest that instead of simply turning consumers into drones ripe for exploitation, targeted advertising can actually stimulate consumer comparison shopping and evaluation of alternatives.⁵² Specifically, consumers receiving targeted advertisements can become “more likely to engage in a costly search” process within the relevant product category.⁵³ When it comes to the gamification of retail trading in particular, research out of the Stockholm School of Economics suggests that the impact of gamification on retail investor behavior is both less dramatic and significantly less causal than might otherwise be assumed based on the Commission’s stark descriptions.⁵⁴ Further, the concern that technological advances

⁴⁹ *Id.* at 144 (“These developments have significantly enhanced the scale and scope of data analytics and their potential applications by investment advisers and broker-dealers in their interactions with investors. These advances have increased the ability of each of these investor interactions to contain conflicted conduct, given the more widespread availability of data about investors, advances in user interface design and gamification, and business practices that could place the firm’s or an associated person’s interest ahead of investors’ interests.”)

⁵⁰ *Id.* at 147-148.

⁵¹ Jennifer J. Schulp, Comment Letter Re: File No. S7-10-21 Request for Information and Comments on Broker-Dealer and Investment Adviser Digital Engagement Practices, Related Tools and Methods, and Regulatory Considerations and Potential Approaches; Information and Comments on Investment Adviser Use of Technology to Develop and Provide Investment Advice (October 1, 2021), at 6, available at https://www.cato.org/sites/cato.org/files/2021-10/JenniferSchulp_DigitalEngagementPractices_CommentLetter.pdf; see also generally, FINRA AI Report, *supra* note 40.

⁵² See Jyoti Madhusoodanan, “Now It’s Personal: How Knowing an Ad Is Targeted Changes Its Impact,” *Yale Insights* (May 17, 2021), available at <https://insights.som.yale.edu/insights/now-its-personal-how-knowing-an-ad-is-targeted-changes-its-impact>; Jiwoong Shin and Jungju Yu, “Targeted Advertising and Consumer Inference,” *Market Science* 40 (August 19, 2021) at 900, available at <https://doi.org/10.1287/mksc.2021.1284>.

⁵³ Shin, *supra* note 52 at 900. See also Madhusoodanan, *supra* note 52.

⁵⁴ Philipp Chapkovski, Mariana Khapko, & Marius Zoican, “Trading Gamification and Behavior,” *Swedish House of Finance Research Paper* no. 21-25 (October 2, 2023), available at <https://dx.doi.org/10.2139/ssrn.3971868>. In a randomized experiment, researchers found that “hedonic gamification elements” (leveraging rewards and UI/UX features) on average increased trading activity by only 5.17%—a measurable but relatively minor rise. *Id.* at 4. Notably, the researchers estimated that the vast majority of increased trading activity—70%—seen on gamified platforms was attributable to *self-selection* (i.e., those who tend to trade more regardless of whether a platform is

spur detrimental trading behavior may be overblown. A recent study found that overall retail investor trading frequencies have not changed substantially compared to 2015 and 2018 levels.⁵⁵ Further, margin trading appears to have decreased between 2015 and 2021.⁵⁶ And the use of margin and options trading for individuals who opened accounts in 2020 remains low, contrary to the narrative that investors who just entered the market are engaging in unusually risk behavior.⁵⁷ Research indicating the impacts of technology, including targeted and behavioral marketing techniques, on consumer behavior can be decidedly mild or salutary counsels against the extraordinary regulatory interventions of the proposed rule.

- Generating New Forms of Conflicts. It is the Commission’s view that advances in PDA technology may not only heighten the impact of known conflicts of interest but also produce new and additional types of conflicts of interest. Specifically, the Commission asserts that the use of PDA can “dynamically alter the nature and scope of conflicts of interest”⁵⁸ and create “unanticipated conflicts of interest.”⁵⁹ Here, the Commission commits a category error, mistaking or conflating the ways in which new technology may alter analysis and communications related to existing conflicts of interest with the idea that the technology can produce novel conflicts of interest. But PDA technology does not change the fundamental source of potential conflicts of interest at the heart of a broker-dealer or investment adviser’s relationship with an investor. As noted above, fundamentally, the source of potential conflict of interest between broker-dealers and investment advisers and investors is a sales relationship where the salesperson has a basic interest in greater profits from the buyer along with the ability to possess greater information than the buyer regarding the financial products or services sold. From the salesperson’s perspective, when it comes to the relationship between profit and customer activity, profits can increase through the customer making more transactions, higher-margin transactions, or both. While PDA technology can change the data available to the seller and the methods of communications between buyer and salesperson, it does not fundamentally alter or augment the salesperson’s core interest in higher transaction volumes or higher-margin transactions. It does not therefore alter or augment the long-understood points of divergence between a firm and an investor. Moreover, even if the Commission’s contention is that the greater data available to the firm through PDA technology results in greater information asymmetry, that issue is

gamified also tend to prefer gamified platforms), whereas gamification itself was estimated only to account for 30% of the increase in trading activity. *Id.* at 4 and 30-32.

⁵⁵ FINRA NFCS Study, *supra* note 6 at 9.

⁵⁶ *Id.* At 11.

⁵⁷ FINRA/NORC 2023 Study, *supra* note 9 at 2 (noting that “[u]se of margin and options trading continued to be low; just 5.1 percent of respondents reported trading on margin, and only 11.6 percent reported trading options).

⁵⁸ *Id.* at 144.

⁵⁹ *Id.* at 150.

properly addressed by the very disclosures that the Commission is looking to *take off the table* as a conflict-of-interest mitigation strategy, as discussed further below.

In the Commission’s view, the enhanced scale and scope of PDA technology magnifies and mutates conflict of interest risks such that disclosure becomes an inadequate remedy—both as a conceptual matter and a practical one. Conceptually, the Commission believes that the ability of targeted and behavioral PDA techniques to “exploit psychological biases and innate tendencies of the investor rather than information deficiencies or asymmetries” renders disclosures designed to correct information asymmetries inapt.⁶⁰ As a practical matter, the Commission asserts that the scale, scope, and dynamic nature of investor interactions made possible by PDA technology would require either lengthy upfront disclosures or constant real-time disclosures, both of which would risk numbing investors to their contents.⁶¹ Ultimately, these argument against the relevance and utility of disclosures are misguided and counterproductive.

We note at the outset the irony of the Commission selecting as an example of the harm that PDA technologies can pose to consumers an enforcement action that hinged on an alleged disclosure failure.⁶² Notwithstanding the Commission’s insistence that its chosen example highlights the risks of PDA technologies not the importance of disclosure, the logic of the latter is inescapable. In the Commission’s own example,⁶³ the disclosure of the conflict—that the asset mix selected by the robo-adviser was pre-set due to an undisclosed interest—would have directly addressed the source of conflict. The example is broadly instructive, demonstrating that the core source of a conflict of interest between an adviser and a customer is the potential of that adviser to profit from a sale given asymmetric information, such as a stake in transactions unknown to the buyer.

As explained above, PDA technology does not alter or augment this fundamental source of a possible conflict of interest. Therefore, the Commission’s conclusion that behavioral marketing techniques that “exploit psychological biases and innate tendencies” render disclosures inadequate is based on a fundamental error.⁶⁴ A strategy that leverages user data and UI/UX design to market a conflicted product or service does not preclude a firm from addressing the underlying conflict. For example, behavioral marketing strategies may result in a particular financial product appearing in a user’s feed, but the relevant product information (e.g., in a card or banner) can nonetheless also reveal the ways in which the firm or firm employee stands to receive revenue or gain in the event of a purchase. There is no conceptual bar to making a

⁶⁰ *Id.* at 149.

⁶¹ *Id.* at 149-150.

⁶² *Id.* at 30-31.

⁶³ *Id.* at 30 (a robo-adviser allegedly constructed a portfolio based on the holdings that would benefit an affiliate).

⁶⁴ *Id.* at 149.

disclosure regarding the information asymmetry at the root of a conflict of interest within the context of behavioral marketing techniques.

The Commission's practical objections to the use of disclosures are also unpersuasive. In fact, modern UI/UX design already has developed efficient means of delivering high-value information to customers. From visual offsets to the simple display of words such as "Ad" or "Sponsored" on paid-for content, digital platforms have devised ample means of indicating when some displayed content differs from other content due to a financial stake involved. And these techniques should not be assumed to be mere window dressing, as knowledge of the fact that an ad is targeted has been found to be a relevant factor in a consumer's behavior, including their likelihood of comparison shopping.⁶⁵ As the use of disclosures to address conflict-of-interest risk remains both possible and workable in the context of PDA-powered marketing, the Commission should allow disclosures as a mitigation strategy and rescind its proposed regulatory alternative.

Fourth, assumptions that complexity and opacity of certain PDA technology can heighten conflict-of-interest risk should not be taken at face value. In addition to "scale and scope" the Commission also believes that the "complexity and opacity" of certain PDA technology can heighten conflict-of-interest risk.⁶⁶ In the Commission's estimation, complexity and opacity could enhance these risks by making conflicts harder to identify⁶⁷ and harder to explain,⁶⁸ both of which could render disclosures insufficient.⁶⁹ The assumptions that these attributes require heightened regulatory interventions or render disclosures inadequate should not be taken at face value.

⁶⁵ *Supra* note 51.

⁶⁶ Notice at 146 ("These conflicts of interest are exacerbated by firms' use of certain covered technologies because the technologies that firms use may be complex and opaque to investors, who may not have the knowledge or time to understand how firms' use of these technologies may generate conflicts of interest in their interactions with investors").

⁶⁷ *Id.* at 145 ("Likewise, a firm's identification of such conflicts is more challenging without unique efforts to both fully understand the PDA-like technology it is using and oversee conflicts that are created by or transmitted through such technology for purposes of the firm's compliance with applicable Federal securities laws") and 32 ("if the firm does not understand how the technology operates—including whether it takes into consideration the firm's interest and how it can influence investor conduct—the firm may not fully understand whether, how, or the extent to which it is placing the firm's interests ahead of investors' interests").

⁶⁸ *Id.* at 146.

⁶⁹ *See id.* at 25 ("[D]isclosure may be ineffective in light of, as discussed above, the rate of investor interactions, the size of the datasets, the complexity of the algorithms on which the PDA-like technology is based, and the ability of the technology to learn investor preferences or behavior, which could entail providing disclosure that is lengthy, highly technical, and variable, which could cause investors difficulty in understanding the disclosure") and 191 ("Investors would not have to expend costly efforts (including in terms of the opportunity cost of time) on understanding the effects of complex and opaque technologies, and the disclosures thereof, that the firms use in their interactions with investors when they can instead rely on conflicts which place the interest of the firm or an associated person ahead of investors' interests to have been eliminated or their effect to have been neutralized").

When viewed as barriers to identifying and describing risks, complexity and opacity are just different points on the same inscrutable technology spectrum, with opacity being the most extreme form. While some PDA technologies, particularly advanced AI models, can be quite complex and opaque—like so-called “black boxes”—this does not pose an insurmountable challenge to identifying relevant conflict-of-interest risk.

The reasons why some advanced AI models, including generative large language models (LLMs), make specific predictions can indeed be a mystery at a granular level.⁷⁰ For example, based on the AI field’s current level of understanding, it can take the efforts of a full team of researchers to pinpoint step-by-step how even a relatively simple model predicts where one word should appear in one basic phrase.⁷¹ The relevant questions for regulators, however, are to what extent this attribute creates risks and how any such risks can best be mitigated.⁷² The underlying complexity and opacity of a PDA model need not spell doom for conflict-of-interest mitigation efforts. Rather, an outcome-oriented mitigation approach could address relevant conflict-of-interest risks without resulting in a de facto ban on the use of sophisticated black-box-like models.

At best, the Commission is inconsistent about whether a firm should be permitted to take an outcome-oriented mitigation approach to opaque PDA technologies. At worst the Commission is outright opposed to that possibility, finding that opacity renders a technology inherently non-compliant.⁷³ On the one hand, the Commission does point to some mitigation strategies—A/B testing models with a variable tweaked to isolate causal relationships,⁷⁴ “embedding explainability features” into a model,⁷⁵ and using “back-end controls” like personnel permissions and use-case restrictions⁷⁶—that could enable firms to comply with the proposed rule notwithstanding their use of an opaque model. On the other hand, the Commission’s

⁷⁰ Timothy B Lee and Sean Trott, “Large language models, explained with a minimum of math and jargon,” *Understanding AI* (July 27, 2023), available at <https://www.understandingai.org/p/large-language-models-explained-with>. We also note that this level of understanding may be subject to rapid evolution, as new research on mechanistic interpretability, for example, has been published even within the past week. See Trenton Bricken et al., “Towards Monosemanticity: Decomposing Language Models With Dictionary Learning,” *Transformer Circuits Thread* (October 4, 2023), available at <https://transformer-circuits.pub/2023/monosemantic-features/index.html>.
⁷¹ *Id.*

⁷² See Jack Solowey, “Regulators Must Avert Overreach When Targeting AI,” *Law360* (September 13, 2023), available at <https://www.law360.com/articles/1716676/regulators-must-avert-overreach-when-targeting-ai>.

⁷³ The Commission only adds to the confusion with a pair of inconsistent passages that supposedly refer to the same concept. In one passage, the Commission states that firms using black-box technologies as a practical matter “likely may not meet the requirements” of the proposed obligation to eliminate or neutralize the effects of a conflict of interest. Notice at 66. Yet in a later passage the Commission states that as a practical matter “it would be *impossible* for firms to use such covered technologies and meet the requirements” of the elimination and neutralization obligation. *Id.* at 121 (emphasis added). While it is perhaps possible to reconcile these statements with inferences from context, market participants deserve greater clarity.

⁷⁴ *Id.* at 26.

⁷⁵ *Id.* at 66.

⁷⁶ *Id.*

general opposition to disclosures with respect to PDA technology, as well as the nature of the mitigation strategies the Commission mentions—means of reversing opacity, not of creating workaround mitigations despite opacity, plus a vague reference to back-end controls—suggest that opacity in a covered technology is inherently non-compliant.

The crux of the issue is that the Commission believes the use of an opaque model makes it impossible to identify all relevant conflicts of interest.⁷⁷ But even the most obscure processes would inevitably result in a consumer-facing output, be it content directly related to a product or service or a more subtle notification or nudge that’s upstream from that content. In either case, the relevant conflict would be the firm’s interest in proceeds from a product or service, and no matter how opaque the process that generated a customer interaction, the firm’s interest in a product or service would not be hidden *from the firm*. The most apt analogy is that a customer almost certainly will never know the exact thought process of their human investment adviser⁷⁸ (nor may the adviser), but nonetheless that customer can readily understand upon disclosure what it means for a product or service presented by that adviser to be one in which the adviser has a financial interest.

It is unwise for the Commission to reject disclosure as a remedy here. Disclosures tied to products and services could mitigate conflict-of-interest risk even in the case of a black box. For example, whether and how a firm will profit from transactions for that product or service can be plainly disclosed to the customer irrespective of the inner workings of the AI model that presented them. There are good reasons to prefer a disclosure regime that allows for the continued use of black-box models. Such a regime would allow both customers and firms to benefit from the most advanced predictive models, which, at present, also tend to be some of the least explainable. From pharmaceutical development to finance, black-box models can produce novel insights, yielding potentially great benefits for those willing to consider them.⁷⁹

In addition, in viewing the complexity and opacity of advanced PDA technology as a barrier to effective disclosure, the Commission commits two errors. First, the Commission mistakenly construes intricate tools for data analysis and communications related to financial products and services as tantamount to possible conflicts of interest themselves. Second, the Commission mistakes the complexity and obscurity of those tools for the complexity and obscurity of the conflict itself.

As discussed above, analysis and communications regarding financial products or services—even those in which the broker-dealer or adviser has a conflict of interest—are not themselves

⁷⁷ See *id.* at 121.

⁷⁸ See Peirce Statement, *supra* note 27 (“The rule appears [to] assume that AI is so complex it needs special rules. Aren’t humans even more complex?”).

⁷⁹ See Solowey, *supra* note 72.

conflicts of interest. Accordingly, while any explanations of the processes giving rise to communications about conflicted products should always be truthful, those processes need not be described in detail in order to explain the financial arrangement creating the conflict of interest.

Moreover, the complexity and obscurity of data analysis and communications tools do not make the financial arrangement creating the conflict any more complex or difficult to explain. The processes giving rise to the financial incentives facing a broker-dealer or investment adviser and the processes putting information before a customer are fundamentally distinct. And even where the process conveying information to a customer considers financial incentives, that does not render those financial incentives and more complex than they otherwise would have been.

Lastly, we note as a general matter that the upshot of a risk can be quite easily distilled notwithstanding the complexity of the phenomena that give rise to that risk or the methodologies that elucidate it. For example, a consumer can be informed of the addictive properties of products containing nicotine without detailed discussion of molecular biology, medicine, biostatistics, or epidemiology. Similarly, neither explaining nor understanding the concept that a salesman has more to gain if a customer purchases product X as opposed to product Y (not to mention purchases more of product Y than less of product Y) requires knowledge of cutting-edge machine learning techniques, behavioral science, or consumer psychology.

The Proposed Rule Will Dampen Innovation and Increase Barriers for Retail Investors

The proposed rule imposes heavy burdens on the use of technology by broker-dealers and investment advisers, which will lead to a decrease in the use of such technology and hesitation to engage in technological innovation. As the Commission acknowledges, “the requirement to identify conflicts of interest in a technology could dissuade firms from using certain technologies when it is too difficult or costly to adequately evaluate the use of the covered technology, identify a conflict of interest, or determine whether they place the firm’s or an associated person’s interest ahead of an investor’s.”⁸⁰ The Commission also acknowledges that investors would lose the potential benefits of these types of technologies and that it would also slow down the rate at which firms update existing or develop new technologies.⁸¹ These costs should not be underestimated. Because the burdens will be widespread across many different types of technology—whether novel or not—it’s worth noting a few different potential detriments to retail investors.

⁸⁰ Notice at 189.

⁸¹ *Id.* at 192.

The burden placed on technology supporting the so-called “gamification” of investing will likely lead to a decrease in the use of design elements that can be called “gamified.” But, as University of Pennsylvania Law School Professor Jill Fisch put it, “It is unclear...why investing should not be fun.”⁸² And building on research that finds that gamification has benefits in education, several studies have found that gamification has promise in helping improve financial decision-making.⁸³

The Commission must be careful not to assume that investors will be uniformly seduced by, or powerless against, gamification techniques. As noted above, this assertion is unwarranted. But, even more importantly, it is not clear that investors themselves are choosing such features. Investors appear to prefer platform features that allow them to learn about investing over features that offer entertainment: a recent FINRA/NORC survey found that investors respond more positively to platform features that allow them to learn, customize or personalize the user interface.⁸⁴ The same investors were less enthusiastic about games of chance, the ability to select an avatar, and the ability to link the interface to social media.⁸⁵

Moreover, as digital engagement, or gamification, becomes more common in everyday life, the exclusion of such features from financial services applications will create an ever-widening gulf between the useability (and desirability) of trading for investors, particularly younger investors. It is important that the Commission not lose sight of the fact that broker-dealers and investment advisers are hardly alone in using technology to engage with their customers.⁸⁶ The Commission must not import holdover views about how trading should look or feel to the

⁸² See Fisch, *supra* note 38 at 23 (further explaining that “Gamification can help counteract some of the forces that lead people not to save and invest such as the perception that investing is boring or complicated. In addition, gamification can have the positive effect of increasing people’s motivation not just to invest but to invest successfully, leading to greater take-up of tools to increase financial literacy.”)

⁸³ Julia Bayuk and Suzanna Altobello, “Can Gamification Improve Financial Behavior? The Moderating Role of App Expertise,” *International Journal of Bank Marketing* 37 (February 28, 2019), available at <https://www.emerald.com/insight/content/doi/10.1108/IJBM-04-2018-0086>; Luis Rodrigues, Abilio Oliveira, Carlos Costa, and Helena Rodrigues, “Gamification to Teach and Assess Financial Education: A Case Study of Self-Directed Bank Investors,” *Hawaii International Conference on Education Paper* (January 2018), available at <https://www.researchgate.net/publication/323127453>; Yi Zhang, Femke Horen, and Marcel Zeelenberg, “Increasing Saving Intentions Through Leaderboards: A Gamification Approach,” *PLoS ONE* 16 (April 14, 2021), available at <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0249283>; Aldrich Rasco, Johnny Chan, Gabrielle Peko, and David Sundaram, “FinCraft: Immersive Personalized Persuasive Serious Games for Financial Literacy Among Young Decision-Makers,” *University of Auckland Business School Research Paper* (September 3, 2020), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3675270; Lewis Teo Piaw Liew, “The Effectiveness of Gamification in Finance Education,” *Asian Conference on Education Paper* (June 2020), available at <http://www.researchgate.net/publication/342287876>.

⁸⁴ FINRA NFCS Study, *supra* note 6 at 7-8.

⁸⁵ *Id.*

⁸⁶ See Fisch, *supra* note 38 at 41 (noting that “While concerns over the ability of app-based platforms to influence investing behavior are undoubtedly true, the same can be said of most consumer-directed behavior, including product information, credit card offers and pharmaceutical advertising....Moreover, that the platform provider has a financial motive in encouraging the targeted behavior again does not distinguish trading platforms.”)

investor—particularly as younger investors begin to make their own investment decisions.⁸⁷ Rules that inhibit the ability of broker-dealers and investment advisers to take advantage of such technological advances are likely to leave more investors out in the cold, increasing both economic and non-economic costs of investing.

Another effect of burdening technology in this way may be to limit the types of ancillary activities that firms are willing to engage in, such as investor education or the provision of information from which investors can engage in research. This could be detrimental because more than 70% of investors report relying on “investment research and tools provided by your brokerage and financial advisory firms” when making investment decisions.⁸⁸

In addition, the general loss of access to AI tools, in particular, from broker-dealers and investment advisers could impoverish investors’ ability to manage their financial lives in perhaps innumerable ways. But we will highlight a few. The losses would include the ability to rapidly key information to investors’ native language and reading level.⁸⁹ They would involve the loss of conversational AI tools that could make the ability to ask bespoke questions lower cost, more widely available, and with less potential fear of embarrassment. And they would mean depriving retail investors of the broad class of tools that have helped to make some of the world’s most successful market participants better able to identify risks and opportunities.⁹⁰

Not only does restricting technology in the way that this rule proposes run a very high risk of inhibiting the features that have brought a more diverse group of investors to the market, it also takes away one of the key ways that investors can increase their own financial knowledge by making it harder to “learn by doing.” Importantly, investors who entered the market for the first time in 2020 have had a modest increase in investing knowledge between 2020 and 2022, suggesting that new investors, in particular, may have benefited from “learning by doing.”⁹¹ The Commission should not place additional barriers in the way of individuals receiving access to financial information and advice.

⁸⁷ Erik Gordon, “Why Gamified Trading is Good for the Stock Market,” *Fortune* (July 28, 2021), available at <https://fortune.com/2021/07/28/robinhood-ipo-meme-stocks-gamification/>; see also World Economic Forum, “The Future of Capital Markets: Democratization of Retail Investing,” *World Economic Forum Insight Report* (August 2020) at 22, available at https://www3.weforum.org/docs/WEF_Future_of_Capital_Markets_2022.pdf (describing the “ease of use and low fees” as “table stakes, especially for millennial and Gen-Z investors”).

⁸⁸ See FINRA NFCS Study, *supra* note 6 at 19; see also Broadridge Study, *supra* note 7 at 11 (noting that 72% of Millennial investors cited “personal financial education/tips” and 48% cited “investing education/tips” as a reason for using a financial app).

⁸⁹ See Solowey, *supra* note 72.

⁹⁰ See *id.*

⁹¹ See FINRA/NORC 2023 Study, *supra* note 9 at 2 and 3. (investors who cited learning to invest as a goal had improvement of 21.5 percent in their objective knowledge from 2020 to 2022). Importantly, this increase in knowledge redounded to those investors who traded one or more times a month on average, again, suggesting that any sort of bright line rule about how much trading is too much may be detrimental.

* * *

Thank you for the opportunity to comment on this proposed rule. We are happy to answer any questions or further engage on this topic.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Schulp". The signature is fluid and cursive, with the first letter being a large, stylized capital 'J'.

Jennifer J. Schulp
Director of Financial Regulation Studies
Center for Monetary and Financial Alternatives
Cato Institute

A handwritten signature in black ink, appearing to read "Jack Solowey". The signature is fluid and cursive, with the first letter being a large, stylized capital 'J'.

Jack Solowey
Policy Analyst
Center for Monetary and Financial Alternatives
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