Consumer Federation of America

October 10, 2023

Vanessa Countryman
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 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 Secretary Countryman,

On behalf of Consumer Federation of America (CFA),[1] we write to express our strong support for the above captioned proposal,[2] which would help to ensure that financial firms do not use technology in ways that place firms' interests ahead of investors' interests.

The Proposing Release correctly recognizes that technology-driven conflicts of interest are too complex and evolve too quickly for the vast majority of investors to understand and protect themselves against, there is significant likelihood of widespread investor harm resulting from technology-driven conflicts of interest, and that disclosure would not effectively address these concerns. Accordingly, we strongly support the Commission's proposed regulatory approach, which would require firms to eliminate or neutralize the effect of technology-driven conflicts of interest that place a firm's or its financial professionals' interests ahead of investors' interests. We urge the Commission to finalize this proposal, with one important clarification regarding the rule's applicability,[3] without undue delay.

I. Background

Broker-dealers and investment advisers are increasingly using advanced technology to provide products and services to investors. The use of technology affects many firm activities, including their interactions with investors.[4] For example, firms increasingly use

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[1] The Consumer Federation of America is a non-profit association of more than 250 consumer groups that was established in 1968 to advance the consumer interest through research, advocacy, and education.
[2] Proposed Rule, *Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers*, Release Nos. 34-97990; IA-6353 (July 26, 2023), https://www.sec.gov/files/rules/proposed/2023/34-97990.pdf ["Proposing Release"].
[3] As discussed on page 11, the Proposing Release is not clear on whether the conflicts of interest of affiliated entities would be covered sufficiently to ensure that firms do not evade the purposes of the rule. We seek clarification that such affiliated entities would be covered.
[4] In 2020, FINRA released a report on AI use in the broker-dealer industry, observing that, "The use of AI-based applications is proliferating in the securities industry and transforming various functions within broker-dealers."

digital engagement practices (DEPs), predictive data analytics (PDAs), artificial intelligence (AI), machine learning (ML), and other advanced technology in trading platforms and apps and investment advisory programs to interact with investors.

While the use of technology to communicate and engage with investors can bring potential benefits to investors in providing greater market access, efficiency, and returns, it can also open the door to firms' using technology to influence investor behavior so as to benefit firms' bottom lines, at the expense of investors' interests.

As Commission Staff has stated: "All broker-dealers, investment advisers, and financial professionals have at least some conflicts of interest with their retail investors. Specifically, they have an economic incentive to recommend products, services, or account types that provide more revenue or other benefits for the firm or its financial professionals, even if such recommendations or advice are not in the best interest of the retail investor." [5]

And just as broker-dealers and investment advisers are incentivized to *recommend* products, services, or account types that benefit their firms financially, even when it's not in investors' best interest, firms may be incentivized to use technology to *steer* investors in the same direction, without making formal recommendations.

Firms increasingly use digital engagement practices, including behavioral prompts, differential marketing, game-like features, and other design elements or features designed to captivate and engage users and steer investors' behavior.[6] For example, firms may use behavioral prompts or nudges in ways that exploit common psychological biases or tendencies in investors and lead investors to make suboptimal decisions.[7] They may also use social networking tools, points, games, streaks, and other contests with rewards, badges, leaderboards, interactive interfaces, celebrations for trading,[8] emoji-filled push notifications,[9] slot-machine "spin the wheel" type games,[10] curated "watch lists" of assets to trade, visual cues, price alerts, chat bots, and other devices to influence and encourage users to engage with the firm's platform or app in particular ways.[11] The more investors engage, the more

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The report highlighted three key areas of AI application: communications with customers, investment processes, and operational functions. *See* FINRA, *Artificial Intelligence (AI) in the Securities Industry* at 5-10 (June 10, 2020), https://www.finra.org/sites/default/files/2020-06/ai-report-061020.pdf.

[5] Securities & Exchange Commission, *Staff Bulletin: Standards of Conduct for Broker-Dealers and Investment Advisers Conflicts of Interest* (August 2, 2022), https://www.sec.gov/tm/iabd-staff-bulletin-conflicts-interest - _ftnref14.

[6] *See, e.g.*, CFA Institute, *Fun and Games: Investment Gamification and Implications for Capital Markets* at 4 (2022), https://www.cfainstitute.org/-/media/documents/protected/Logged-in-report/investment-gamification-implications.pdf.

[7] *See, e.g.*, Financial Conduct Authority, *Gaming trading: how trading apps could be engaging consumers for the worse* (last updated January 2, 2023), https://www.fca.org.uk/publications/research-articles/gaming-trading-how-trading-apps-could-be-engaging-consumers-worse - ar-top.

[8] *Id.* (citing Philipp Chapkovski et al., *Trading gamification and investor behavior*, Swedish House of Finance Research Paper No. 21-25 (May 23, 2023), https://ssrn.com/abstract=3971868.).

[9] *Id.* (citing Marc Arnold, Matthias Pelster, and Marti G. Subrahmanyam, *Attention Triggers and Investors' Risk-Taking*, 846-875 Journal of Financial Economics Vol. 143, Issue 2 (February 2022), https://www.sciencedirect.com/science/article/abs/pii/S0304405X21002245.).

[10] *Id.* (citing Sayan Chaudhry and Chinmay Kulkarni, *Design Patterns of Investing Apps and Their Effects on Investing Behaviors* at 782, Virtual Event (June 28-July 2, 2021), https://www.cs.cmu.edu/~chinmayk/assets/pdfs/2021-DIS-TradingApps.pdf.

[11] *See Id.*

they trade and the more money firms make, yet the worse investors fare. Research shows that trading is hazardous for investors' wealth.[12]

Firms may also design their user interface to influence investors to trade particular securities, such as those that are volatile,[13] or engage in particularly risky strategies, such as options or margin, even if they are not appropriate for those investors. The more investors trade in options or on margin, the more money firms make, relative to trading in individual securities or funds.[14] Yet, encouraging investors to engage in such risky behavior can have devasting consequences.[15]

Similar to the intentional design elements of casinos, technologies used on digital trading platforms can subtly manipulate investors into making decisions that yield higher profits for the firm.[16] Professors Kyle Langvardt and James Tierney have observed that firms' use of

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[12] *See, e.g.*, Brad Barber et al., *Attention-Induced Trading and Returns: Evidence from Robinhood Users*, Journal of Finance, Forthcoming (October 2021), https://cafin.ucsc.edu/research/work_papers/cafin_wp_2103.pdf; Brad Barber and Terrance Odean, *The Behavior of Individual Investors* (September 7, 2011), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1872211; Brad Barber et al., *The Cross-Section of Speculator Skill: Evidence from Day Trading*, Journal of Financial Markets, Vol. 18 (March 2014), https://www.sciencedirect.com/science/article/pii/S1386418113000190; Brad Barber and Terrance Odean, *Trading is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors*, Journal of Finance, Vol. 55, No. 2 (April 2000), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=219830. Researchers also recently found that when investors received push notifications about a certain stock, not only did trading intensity go up (meaning they traded more), but also investors used greater leverage in their trades. In other words, DEPs that grab investors' attention "stimulate financial risk-taking." *See* Marc Arnold et al., *Attention Triggers and Investors' Risk-Taking* at 25.

[13] *See* Brad Barber et al., *Attention-Induced Trading and Returns: Evidence from Robinhood Users*, Journal of Finance, Forthcoming (October 2021), https://cafin.ucsc.edu/research/work_papers/cafin_wp_2103.pdf ("[O]ur evidence indicates the Robinhood app affects the intensity of this behavior because of the unique way Robinhood displays the 'Top Mover' list.").

[14] Alexander Osipovich and Gunjan Banerji, *How Robinhood Cashes In on the Options Boom*, The Wall Street Journal (October 31, 2021), https://www.wsj.com/articles/how-robinhood-cashes-in-on-the-options-boom-11635681600; Nathaniel Popper, *Growth in Options Trading Helps Brokers but Not Small Investors*, The New York Times (May 24, 2013), https://www.nytimes.com/2013/05/25/business/growth-in-options-trading-helps-brokers-but-not-small-investors.html.

[15] *See, e.g.*, Tony Dokoupil et al., *Alex Kearns died thinking he owed hundreds of thousands for stock market losses on Robinhood. His parents have sued over his suicide*, CBS News (February 8, 2021), https://www.cbsnews.com/news/alex-kearns-robinhood-trader-suicide-wrongful-death-suit/; *and see* Rob Bauer et al., *Option Trading and Individual Investor Performance*, Journal of Banking & Finance, Vol. 33, Issue 4 (April 2009), https://www.sciencedirect.com/science/article/abs/pii/S0378426608002720; Betsy Vereckey, *Retail Investors Lose Big In Options Markets, Research Shows*, MIT Ideas Made to Matter Blog (August 4, 2022), https://mitsloan.mit.edu/ideas-made-to-matter/retail-investors-lose-big-options-markets-research-shows; Andy Naranjo, Mahendrarajah Nimalendran, and Yanbin Wu, *Betting on Elusive Returns: Retail Trading in Complex Options* (March 21, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4404393.

[16] *See, e.g.*, Alex Clere, *Has the 'gamification' of investing apps gone too far?*, FinTech Magazine (December 1, 2022), https://fintechmagazine.com/articles/has-the-gamification-of-investing-apps-gone-too-far, (citing a study by the UK's Financial Conduct Authority: "The FCA surveyed 3,000 consumers across a sample of five different investing apps, and found that some displayed patterns of behaviour consistent with problem gambling. In three of the five apps studied, between a fifth and a quarter of consumers were demonstrating 'at-risk' behaviours. What's more, the FCA's Financial Lives Survey 2022 found that 9% of adults with investments had borrowed money in order to fulfil the investment – and 49% of these would not have been able to make the investment without doing so."); Kirsty Major, *Trading platforms sell the dream of making big money fast. The reality can be far more brutal,* The Guardian (May 3, 2023), https://www.theguardian.com/commentisfree/2023/may/03/trading-platforms-money-wages-financial-products-online; Sivananth Ramachandran, *Examining gamification's power and influence in the markets*, InvestmentNews (February 15, 2023), https://www.investmentnews.com/examining-gamification-investing-and-

gamification and casino-like design features "encourage unreflective or unconsidered decision making based on cognitive bias, imperfect rationality, and impulse."[17] Langvardt and Tierney further observed that, "By appealing to impulse rather than deliberation, [trading apps'] features promote patterns of risky trading that may not be in most retail investors' best interests."[18] In short, firms offer retail investors free stock, "spin the wheel" games to win mystery prizes, endorphin-producing digital confetti for placing trades,[19] and other emotion-triggering tactics to encourage investors to engage in mindless gambling behavior that juices firms' revenue, rather than practices that encourage thoughtful, prudent, and dispassionate investing that will serve investors' best interest over the long-term.

Examples of these types of activities are described in detail in the administrative complaint brought against Robinhood by William Galvin, Secretary of the Securities Division of the Commonwealth of Massachusetts.[20] For example, the complaint alleges that Robinhood used "aggressive tactics to attract new, often inexperienced, investors" and used "strategies such as gamification to encourage and entice continuous and repetitive use of its trading application."[21] The complaint further alleges that once individuals joined the platform, many of whom were younger investors who were aggressively targeted and marketed to, "Robinhood relentlessly bombards them with a number of strategies designed to encourage and incentivize continuous and repeated engagement with its application."[22]

In addition, broker-dealers may use AI and PDA-like technology to assess investor sentiment, analyze customer behavior, and adjust the content and presentation of communications in real-time, based on investors' activities and responses.[23] In another recent article, Tierney observed that "behind-the-scenes technological features can potentially learn what kinds of prompts get us to trade, so we can be offered individual prompts that encourage us to trade even more."[24] Firms may also use manipulative dark patterns, "interface design choices that are knowingly designed to 'confuse users, make it difficult for users to express their actual

influence-in-the-markets-234002; Cyrus Farivar, *Gambling addiction experts see familiar aspects in Robinhood app*, NBC News (January 30, 2021), https://www.nbcnews.com/business/business-news/gambling-addiction-experts-see-familiar-aspects-robinhood-app-n1256213 ("A lot of this is directly taken from the user experience of casinos: It encourages immediacy and frequent engagement.").

[17] Kyle Langvardt and James Fallows Tierney, *On "Confetti Regulation": The Wrong Way to Regulate Gamified Investing*, Yale Law Journal Vol. 131 (January 17, 2022) https://www.yalelawjournal.org/forum/on-confetti-regulation-the-wrong-way-to-regulate-gamified-investing ("To that end, these apps incorporate design features that are sometimes called "gamification": behavioral prompts and flashy casino-like design elements that encourage unreflective or unconsidered decision making based on cognitive bias, imperfect rationality, and impulse.").

[18] *Id.*

[19] While Robinhood removed the confetti feature, it did so because the company viewed the conversation around it as a "distraction." ("In its response to the Massachusetts complaint, Robinhood maintained that digital confetti is legal[.]") *See* Stan Choe, *Robinhood Cans the Confetti, Unveils New Celebratory Designs*, Associated Press (March 31, 2021), https://apnews.com/article/business-3c83ae69e7dbc4ddc825e9af308e9c78.

[20] Commonwealth of Massachusetts Office of the Secretary of the Commonwealth Securities Division, Motion for Leave to File Amended Administrative Complaint, Robinhood Financial, LLC, No. E-2020-0047 (April 15, 2021), https://static.reuters.com/resources/media/editorial/20210415/04142021robinhood_amend.pdf.

[21] *Id.* at 2-3.

[22] *Id.* at 4.

[23] *See, e.g.*, James Fallows Tierney, *The SEC's data analytics rule and the "Netflix" problem in securities law* (August 30, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4524766.

[24] James Fallows Tierney, *Investment Games*, 72 Duke Law Journal 353-446 (2022), https://scholarship.law.duke.edu/dlj/vol72/iss2/2.

preferences, or manipulate users into taking certain actions.'"[25] The ability to curate communications in these ways allows firms to manipulate investors into behaving in ways that are very profitable for the firm, but potentially very harmful to investors.

Investment advisers may also use technology in their advisory programs in ways that prioritize generating revenue for their firm rather than advice that is in investors' best interests.[26] This can occur where, for instance, firms populate portfolios with proprietary funds, funds that pay revenue sharing to an affiliate, or cash management vehicles that pay interest to the firm or an affiliate. They may also construct portfolio allocations so as to weight revenue-paying assets to help meet revenue targets, irrespective of whether those assets or their weights are in the best interest of investors.

Advisory firms and professionals are also increasingly using AI and other advanced technology to refine investment decision-making, analyze large data sets, and power robo-advisory services. When firms use AI and other advanced technology, in some cases they may intentionally program or "teach" the technology to function in ways that place the firm's interest ahead of investors. In other cases, the technology may "learn" by itself to place the firm's interest ahead of investors' interests, without appropriate oversight by firms to stop such conflicted activity.[27]

When firms use PDA-like technology to advance their own interests at the expense of investors, it can cause significant harm to investors. Moreover, it can harm a substantial number of investors very quickly because firms can efficiently engage in conflicts of interest across their entire customer or client base.[28] For these reasons, the conflicts of interest associated with advanced technology are contrary to the public interest and the protection of investors.[29]

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[25] Securities & Exchange Commission, *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* at 10, File No. S7-10-21 (August 27, 2021), https://www.sec.gov/files/rules/other/2021/34-92766.pdf (citing Jamie Luguri and Lior Jacob Strahilevitz, *Shining a Light on Dark Patterns,* 13 Journal of Legal Analysis 43 (2021).); *see also* Steven Hassan, *How AI Can Be Used to Manipulate People*, Psychology Today (April 6, 2023), https://bit.ly/3tstFcD; Stefano Faraoni, *Persuasive Technology and computational manipulation: hypernudging out of mental self-determination*, National Library of Medicine (July 4, 2023), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10352952/; *and* Kristina Radova, *Choice Architecture – Everything You Need to Know*, InsideBE, https://insidebe.com/articles/choice-architecture/.

[26] *See, e.g.*, Proposing Release at 11 ("For example, a firm may use PDA-like technologies to automatically develop advice and recommendations that are then transmitted to investors through the firm's chatbot, push notifications on its mobile trading application ("app"), and robo-advisory platform. If the advice or recommendation transmitted is tainted by a conflict of interest because the algorithm drifted to advising or recommending investments more profitable to the firm or because the dataset underlying the algorithm was biased toward investments more profitable to the firm, the transmission of this conflicted advice and recommendations could spread rapidly to many investors.").

[27] Proposing Release at 29, ("In some cases, the use of PDA-like technologies to place a firm's interests ahead of investors' interests could reflect an intentional design choice. In other cases, however, the actions that place a firm's interests ahead of the interest of investors may instead reflect the firm's failure to fully understand the effects of its use of PDA-like technologies or to provide appropriate oversight of its use of such technologies.").

[28] The Proposing Release highlights how AI/ML/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[.]" Proposing Release at 145.

[29] Accordingly, we strongly support the Commission's use of the authority granted to it by Section 211(h)(2) of the Advisers Act and Section 15(l)(2) of the Exchange Act.

II. Existing Regulations do not Sufficiently Protect Investors from the Potential Risks and Harms Associated with Technology-Driven Conflicts of Interest

Existing regulations, including Regulation Best Interest for broker-dealers, the Investment Adviser's Fiduciary Duty, and the anti-fraud provisions of the Exchange Act, do not sufficiently protect investors from the potential risks and harms associated with technology-driven conflicts of interest.

A. Regulation Best Interest does not sufficiently protect investors from the potential risks and harms associated with technology-driven conflicts of interest.

Regulation Best Interest (Reg. BI), which established an enhanced standard of conduct for broker-dealers when making securities recommendations to retail investors, would not sufficiently protect investors from the potential risks and harms associated with technology-driven conflicts of interest for two primary reasons. First, Reg. BI would not apply to many instances in which firms use technology to encourage and influence investors' behavior. Second, even if Reg. BI did apply, it would not protect investors sufficiently from the harms associated with technology-driven conflicts of interest.

First, Reg. BI applies only where there is a recommendation. To the extent a broker-dealer uses PDA-like technology that influences, prompts, or steers investors to take a particular course of action without providing a recommendation, Reg. BI would not apply. For instance, if a firm employs DEPs on a trading platform that don't rise to the level of a recommendation but nonetheless prompt investors to trade more frequently or engage in complex, costly, or risky strategies (thus benefiting the firm but potentially harming investors), Reg. BI wouldn't apply. Yet investors receiving such prompts would still risk being harmed from such activity, just as if a recommendation were made.

Because Reg. BI applies only where there is a recommendation, broker-dealers may be incentivized to use technology to influence, prompt, or steer investors to take particular action without making formal recommendations. Many broker-dealer communications are likely to fall into this category. To the extent Reg. BI does not apply, investors would not receive any benefits of Reg. BI's protections, insufficient as they are in this context, as discussed below.

In other cases, it may not be clear whether a broker-dealer's use of PDA-like technology constitutes a recommendation. This is because whether a communication constitutes a recommendation is a fact and circumstances determination. Given the innumerable ways firms may be able to use technology to interact with investors, it would consume significant resources and still may not be evident whether a particular interaction rises to the level of a recommendation. Requiring an interaction-by-interaction analysis would result in a lack of clarity, consistency, and efficient use of resources for the Commission, FINRA, and broker-dealers, and fail to protect investors adequately.

To the extent that a broker-dealer firm's use of PDA-like technology would constitute a recommendation and Reg. BI would apply, Reg. BI would still not protect investors sufficiently from the harmful effects of technology-driven conflicts of interest. This is because, as a practical matter, Reg. BI's Conflict of Interest Obligation would permit firms to disclose conflicts rather than mitigate or eliminate conflicts in many instances. Reg. BI distinguishes between conflicts of interest at the firm-level and conflicts of interest at the rep-level, and imposes different obligations for each. Under Reg. BI, firm-level conflicts must be disclosed if not eliminated, while rep-level conflicts of interest must be mitigated or eliminated.[30] Thus, to the extent a firm's PDA-like technology has conflicts that aren't transmitted to a human rep, which is increasingly occurring, given that many firms have limited to no human interaction with their customers,[31] Reg. BI would merely require these firms to disclose such conflicts.

A wealth of evidence shows that disclosure of conflicts does not protect investors from the harmful effects of conflicts of interest, as discussed in more detail in Section III. Moreover, we doubt disclosure of many if not most technology-related conflicts would even meet the requirements of Reg. BI's Disclosure Obligation. As Reg. BI's Adopting Release makes clear, "Where a broker-dealer cannot fully and fairly disclose a conflict in accordance with the Disclosure Obligation, the broker-dealer should eliminate the conflict or adequately mitigate (i.e., reduce) the conflicts such that full and fair disclosure in accordance with the Disclosure Obligation is possible."[32] The Adopting Release continues, stating, "In some cases, conflicts of interest may be of a nature and extent that it would be difficult to provide disclosure that adequately conveys to a retail customer the material facts or the nature, magnitude and potential effect of the conflict for informed decision-making or where disclosure may not be sufficiently specific or comprehensible for the retail customer to understand whether and how the conflict will affect the recommendations he or she receives."[33]

When broker-dealers use advanced technology to influence customers' behavior, it is unlikely that the vast majority of investors will understand the nature, magnitude, or potential effects of the conflicts of interest, or how the technology is being used to influence their behavior. Furthermore, given the complexity of advanced technology and associated conflicts of interest, it is unlikely that firms would be able to design disclosure to be sufficiently specific or comprehensible for most retail investors to understand those disclosures and make informed investment decisions.

Accordingly, Reg. BI would not provide sufficient investor protections in this context.

B. The Investment Advisers Act fiduciary duty does not sufficiently protect investors from the potential risks and harms associated with technology-driven conflicts of interest.

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[30] *See* Securities & Exchange Commission, *Regulation Best Interest: The Broker-Dealer Standard of Conduct* at 303, Release No. 34-86031; File No. S7-07-18 (June 5, 2019), https://www.sec.gov/rules/final/2019/34-86031.pdf, ["Reg. BI Release"] (The rule requires the broker-dealers to establish, maintain, and enforce written policies and procedures reasonably designed to: "(A) Identify and at a minimum disclose, in accordance with paragraph (a)(2)(i) of this section, or eliminate, all conflicts of interest associated with such recommendations; [and] (B) Identify and mitigate any conflicts of interest associated with such recommendations that create an incentive for *a natural person who is an associated person* of a broker or dealer to place the interest of the broker or dealer, or such natural person making the recommendation, ahead of the interest of the retail customer[.]" (Italics added).
[31] For example, neither Robinhood nor Webull has human reps interacting with customers for the vast majority of customer interactions.
[32] *Id*. at 319.
[33] *Id*.

Investment advisers are fiduciaries and therefore must, at all times, serve their clients' best interest and not subordinate their clients' interest to their own. However, with the increasing use of technology, some advisers are using technology in ways that appear to be inconsistent with their fiduciary duty. Moreover, because the Commission has allowed investment advisers to satisfy their duty of loyalty by disclosing their conflicts of interest, many advisers engage in harmful conflicts of interest by disclosing conflicts in ways that investors are unlikely to understand or actually consent to. Simply put, no reasonable investor would consent to advice that puts the adviser's interest ahead of the investor's interest.

In addition, investment advisers do not currently have specific obligations under the Advisers Act or any of its rules to eliminate, or neutralize the effect of, conflicts of interest after the adviser identifies, or reasonably should have identified, such conflicts of interest.

And just as we doubt broker-dealers' disclosure of complex technology-related conflicts of interest would meet Reg. BI's Disclosure Obligation, we doubt that investment advisers' disclosure of complex technology-related conflicts of interest would meet investment advisers' duty of loyalty for similar reasons. The Advisers Act fiduciary duty requires an adviser to "eliminate or at least expose through full and fair disclosure all conflicts of interest which might incline an investment adviser—consciously or unconsciously—to render advice which was not disinterested."[34] In order for disclosure to be full and fair, it must be sufficiently specific so that a client is able to understand the material fact or conflict of interest and make an informed decision whether to provide consent. As the Investment Adviser Fiduciary Interpretation states, "In some cases, conflicts may be of a nature and extent that it would be difficult to provide disclosure to clients that adequately conveys the material facts or the nature, magnitude, and potential effect of the conflict sufficient for a client to consent to or reject it….For retail clients in particular, it may be difficult to provide disclosure regarding complex or extensive conflicts that is sufficiently specific, but also understandable."[35]

It is unlikely that the vast majority of retail investors would understand advanced technology or associated conflicts of interest, given the complexity of the technology or conflicts that are involved. It would also be exceedingly difficult for investment advisers to provide sufficiently specific disclosures to clients that adequately convey the material facts about the advanced technology that they use or the nature, magnitude, and potential effects of the conflicts of interest associated with that technology in a way that enables clients' informed consent.

The Proposing Release correctly acknowledges these concerns, observing that investment advisers "may be unable to rely on disclosure to address their existing conflicts obligations to the extent that the complex nature of the technologies and associated conflicts makes it difficult or impossible for the adviser to accurately determine whether it has designed a disclosure to put its clients in a position to be able to understand and provide informed consent to the conflicts."[36]

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[34] Securities & Exchange Commission, *Commission Interpretation Regarding Standard of Conduct for Investment Advisers* at 23, Release No. IA-5248 (June 5, 2019), https://www.sec.gov/rules/interp/2019/ia-5248.pdf.
[35] *Id.* at 28.
[36] Proposing Release at 169.

Accordingly, the Advisers Act fiduciary duty would not provide sufficient investor protections in this context.

C. The anti-fraud provisions of the securities laws do not sufficiently protect investors from the potential risks and harms associated with technology-driven conflicts of interest.

Some commenters on the Commission's RFI on DEPs pointed to the anti-fraud provisions of the securities laws as a viable mechanism to protect investors from fraudulent uses of DEPs. These commenters generally opposed any new rulemaking to address conflicts of interest in this space. As discussed below, it would be exceedingly difficult to apply the anti-fraud provisions to firms' use of technology.

Generally, the anti-fraud provisions of the Exchange Act prohibit false or deceptive conduct in connection with the purchase or sale of securities. Fraud claims are often brought under Section 10 of the Exchange act and Rule 10b-5 thereunder.[37] Rule 10b-5 requires proof that the defendant made untrue statements of material facts and omitted to state material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; or directly or indirectly employed devices, schemes, and artifices to defraud, and engaged in acts, practices, and courses of business which operated or would operate as a fraud or deceit upon any person. In addition, the defendant must have acted with *scienter*, having knowingly or recklessly engaged in the fraudulent conduct.

It would be challenging to meet the elements of a Section 10(b) enforcement action. This is because it would be challenging to prove that a firm acted with *scienter* without evidence that a human knowingly or reckless engaged in the fraudulent conduct.[38] For example, if a firm's technology was programmed to engage in fraudulent conduct, it may still be difficult to obtain evidence that the programmers knowingly or recklessly designed the technology in this way. Barring evidence such as an explicit order by an executive to program the technology in a particular way, it would be challenging to infer *scienter* merely based on how the technology functioned. It would be even more challenging proving *scienter* if a firm's technology was not programmed to engage in fraudulent conduct but instead "learned" on its own to engage in such conduct.[39] Imputing knowledge or recklessness on a technology in this context would raise a host of thorny factual and legal questions that would not be resolved easily.

Because it would be exceedingly difficult to apply the anti-fraud provisions to firms' use of technology, the anti-fraud provisions would not provide sufficient investor protections in this context.

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[37] Fraud claims can also be brought under Section 17(a) of the Securities Act and don't require proof of *scienter*.
[38] *See* Thomas Lee Hazen, *The Law of Securities Regulation* at 483 (noting some circuits have found that "there must be at least one individual who acted with the requisite state of mind" to establish "corporate scienter.").
[39] Ross P. Buckley et al., *Regulating Artificial Intelligence in Finance: Putting the Human in the Loop*, 43 Sydney Law Journal 43 (April 1, 2021), https://ssrn.com/abstract=3831758 (A group of international researchers observed that one risk of AI is that it "results in processes and operations unknown to and uncontrolled by human beings, producing undesirable results for which, arguably, only the AI may be responsible." The researchers concluded that "the most effective regulatory approaches to addressing the role of AI in finance bring humans into the loop through personal responsibility regimes, thus eliminating the black box argument as a [defense] to responsibility and legal liability for AI operations and decisions.").

III. Disclosure would not effectively address the potential risks and harms associated with technology-driven conflicts of interest.

A wealth of evidence shows that disclosure of conflicts does not protect investors from the harmful effects of conflicts of interest. The Commission highlighted the significant body of research discussing the limits of conflict disclosure in its Reg. BI Adopting Release.[40]

In addition, as discussed above in the context of disclosure under Reg. BI and the Investment Advisers Act fiduciary duty, it would be extremely difficult, if not impossible, for firms to disclose complex conflicts of interest associated with advanced technology so as to enable investors to engage in informed decision making. First, it is unlikely that the vast majority of investors understand the nature, magnitude, or potential effects of complex conflicts of interest. Second, adding complex, advanced technology into the mix would all but guarantee investors don't fully understand all of the ways they are being influenced, to the firm's benefit and their detriment. If they don't understand how they are being influenced by advanced technology with complex conflicts of interest, they won't be in a position to protect themselves from potential risks and harms.

The Proposing Release does a good job of explaining why relying on disclosure of conflicts of interest to address potential investor harms would be particularly ineffective in this context. The Proposing Release states, "The scope and frequency of investor interactions with new technologies and the complex, dynamic nature of those technologies may make it difficult for investors to understand or contextualize disclosures of conflicts of interest to the extent that the investors interact with the technologies, with interfaces or communications which feature outputs of the technologies, or with associated persons who make use of outputs of the technologies."[41] We agree. The Proposing Release further observes that, "Disclosure of the full scope and dynamic nature of conflicts of interest that can be associated with the use of covered technologies can potentially be too broad and unspecific to be useful to a particular investor, or alternatively could entail too many disclosures to be useful to an investor."[42] We share these concerns.

Firms' challenges with disclosing conflicts of interest effectively would be compounded when "black box"[43] technology is used in investor interactions. In a 2021 report about AI/ML use by market intermediaries and asset managers, IOSCO observed how "some ML models operate as a 'black box' with limited clarity on the reasoning behind the output," observing that, "in the case of deep unsupervised learning algorithms, the decisions made by the AI and

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[40] *See* Reg. BI Release at 503-508 ("Other studies, however, have found that disclosures may be ineffective, particularly if the intended audience does not read the disclosure documents or does not understand the material presented to them. One study, for example, notes that as the length and complexity of the disclosure document increases, so does the time that it takes for investors to read and understand the material contained within; therefore, investors are more likely to prefer shorter, simpler, and more straightforward language in disclosures. Many studies have explored the effect of revealing conflicts of interest to consumers and note that disclosure of conflicts may produce undesirable behavior by the disclosing party, or that receivers of the information provided by disclosures may fail to appropriately account for the implications. A series of studies documents that consumers do not account for conflicts of interest revealed through disclosures, and that such disclosures of conflicts can have the perverse effect of increasing bias and moral licensing in the provision of advice…. From the perspective of the investor, conflicts disclosures may lead to under- or overreaction by investors.").

[41] Proposing Release at 25.

[42] Proposing Release at 176.

[43] *See* Will Kenton, *What Is a Black Box Model?*, Investopedia (June 29, 2023), https://www.investopedia.com/terms/b/blackbox.asp.

ML models can be non-interpretable or unexplainable."[44] If a model can't be interpreted or explained, it can't be disclosed effectively, certainly not in a way that enables informed decision making.

The effectiveness of conflict disclosures about PDA-like technology is likely to be undermined further by the fact that many of the technologies at issue "operate on psychological rather than rational factors."[45] Stated another way, disclosure will never counteract highly sophisticated technology that manipulates human psychology.

For all of these reasons, relying on disclosure would not address the potential risks and harms associated with firms' technology-related conflicts of interest.

IV. The Commission's Proposal Would Protect Investors from Conflicts of Interest Associated with Firms' Advanced Technology.

The Commission has proposed a pro-investor regulatory framework that would require firms to proactively ensure that they do not use technology in ways that place their interests ahead of investors' interests.

First, the proposal would require firms to evaluate any use or potential use by the firm of a covered technology in any investor interaction, to identify any conflict of interest (including by testing covered technology prior to its implementation or material modification and periodically thereafter). The terms "covered technology," "investor interaction," and "conflict of interest" are defined broadly in the proposal in order to capture a wide variety of technology uses, interactions, and conflicts of interest. This broad coverage would also ensure that firms identify and evaluate the kinds of activities that could result in the firm's placing its interests ahead of investors' interests. We support this approach.

However, one aspect of the definition of conflict of interest raises questions about its applicability and deserves clarification and strengthening. The definition of conflict does not appear to cover conflicts of interest for affiliated entities that control, are controlled by, or are under the common control of a firm.[46] Based on our reading of the Proposing Release, this could leave a loophole that firms could exploit to evade the purposes of the rule. If a firm uses PDA-like technology to influence investor decision making so as to benefit an affiliate, that activity should be covered under the rule. For example, if an investment adviser uses technology that influences investors to participate in a cash management program that increases revenue to an affiliated bank, that should be covered. Similarly, if an investment adviser uses technology that influences investors to invest in a fund that pays revenue sharing to an affiliated broker, that should be covered. By the same token, if a broker-dealer uses technology that influences investors to trade crypto assets on an affiliated crypto platform, that should be covered. Otherwise, firms would have an incentive to structure their investor interactions and compensation to evade the rule, which would undermine the purposes and

[44] IOSCO, *The Use of Artificial Intelligence and Machine Learning by Market Intermediaries and Asset Managers* at 11 (September 2021), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD684.pdf.

[45] Proposing Release at 176.

[46] Proposing Release at 68-69 ("The proposed conflicts rules would consider conflicts of associated persons only for associated persons that are individuals, and not of entities that control, are controlled by, or are under common control with a firm, but many of the Commission's enforcement actions relating to undisclosed conflicts have involved conflicts of firms' affiliated entities, and not of individuals.").

investor protection benefits of the rule. We urge the Commission to clarify and address these concerns.

Next, the proposal would require firms to determine if any conflict of interest that the firm has identified places or results in placing the interest of the firm or its financial professionals ahead of the interests of investors. If a conflict of interest meets this test, the firm must eliminate or neutralize the effect of that conflict of interest promptly after the firm determines, or reasonably should have determined, that the conflict of interest placed the interests of the firm or its financial professionals ahead of the interests of investors. This "eliminate or neutralize the effect of" requirement is a critical feature of the proposal because it would help to ensure that firms aren't permitted to intentionally or unintentionally use technology to profit at investors' expense. Preserving this feature of the proposal in a final rule is vital to achieving the Commission's investor protection objectives.

In addition, the proposal includes provisions for periodic testing to determine whether any covered technology is associated with a conflict of interest. This requirement would help to ensure that firms remain vigilant in addressing conflicts of interest, as technology continues to advance and evolve. This requirement would also help to ensure that firms have a reasonable understanding of the use or reasonably foreseeable potential use of covered technology in investor interactions.

Importantly, the proposal would provide investors with strong protections from conflicts of interest that they do not currently receive. First, investors who do not receive protections under Reg. BI because their broker-dealer's communications don't constitute recommendations would receive protections under the proposed rule. As the proposal states: "the proposed definition [of "investor interaction"] would capture firm communications that may not rise to the level of a recommendation, yet are nonetheless designed to, or have the effect of, guiding or directing investors to take an investment-related action."[47] Second, the investor protections under the rule would be much stronger than Reg. BI's protections if Reg. BI did apply in this context. As discussed above, Reg. BI allows firms to disclose firm-level conflicts of interest rather than mitigate or eliminate them. In contrast, this proposal appropriately eschews the notion that disclosure can address the harmful effects of conflicts of interest.[48]

Second, clients of investment advisers would receive strong protections under the proposed rule, ensuring that advisory firms do not rely unreasonably on ineffective disclosure of technology-related conflicts of interest. The proposal recognizes that, due to the complex nature of advanced technology and associated conflicts of interest, investment advisers "may be unable to rely on disclosure to address their existing conflicts obligations to the extent that the complex nature of the technologies and associated conflicts makes it difficult or impossible for the adviser to accurately determine whether it has designed a disclosure to put its clients in a position to be able to understand and provide informed consent to the conflicts."[49] By providing a clear framework for advisers to follow that sidesteps these

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[47] Proposing Release at 53.

[48] That said, the proposed "eliminate or neutralize" approach parallels Reg. BI's mitigation requirement because in both instances, the firm must take steps to ensure that the communication (recommendation in the case of Reg. BI; interaction in the case of the proposal) does not place the interest of the firm or its associated persons ahead of the investor's.

[49] Proposing Release at 104.

disclosure challenges, compliance with the proposed rule could help advisers satisfy their fiduciary duty.

The proposed approach appropriately recognizes that firms should undertake different levels of review for different types of technology, based on their complexity and potential for related conflicts of interest to adversely affect investors. For example, a firm that only uses simpler covered technologies in investor interactions, such as basic financial models or simple investment algorithms, could take simpler steps to evaluate the technology and identify any conflicts of interest, whereas a firm that uses more advanced and complex covered technologies may need to take additional steps to evaluate the technology and identify associated conflicts adequately. This approach would ensure that resources are focused where the potential risks to investors are likely the greatest.

Finally, the proposal would require firms to adopt, implement, and maintain written policies and procedures that are reasonably designed to achieve compliance with the rule. These requirements would facilitate firms' compliance with the proposal and enable Commission oversight.

Conclusion

The proposed rules represent an investor-focused and adaptable approach to protect investors in the face of rapidly advancing and evolving technology. We strongly encourage the Commission to finalize this proposal without weakening or narrowing its scope or applicability. We also urge the Commission to reduce any risk that firms could evade the investor protection purposes of the proposal.

Respectfully submitted,

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