



650 College Drive
Dalton, GA 30720
706-272-4507 / 706-272-4525
www.daltonstate.edu

Date: October 9, 2023

Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

File No. S7-12-23

A Review of the Proposed Rule Regarding the Use of Predictive Data Analytics
by Broker-Dealers and Investment Advisers.

The undersigned students and faculty of the Wright School of Business, Dalton State College, hereby offer this letter of commentary regarding Release Nos. 34-97990; IA-6353; File No. S7-12023. While we offer the opinions and views expressed below in our capacity as students and faculty, they do not necessarily represent the views of Dalton State College but are merely our own. This letter will address the proposals in light of concerns related to protecting investors and the economy from concerns raised by the increasing use of Artificial Intelligence (AI) by broker-dealers.

Introduction:

The Security and Exchange Commission has proposed new rules designed to reduce or eliminate the impact of conflicts of interest associated with broker-dealer use of predictive data analytics in guiding, forecasting, or directing investment-related behaviors and outcomes. At its core, the new rules seek to prevent and deter broker-dealers and investment advisers from using predictive data analytics and similar technologies to prioritize their interests over those of investors. The Commission also proposes rules requiring firms to create and maintain records to further the rule's interests and allow for review and backward-looking compliance efforts.

The increasing use of artificial Intelligence (AI) and other predictive data software creates new challenges for regulators and markets. One novel problem relates to the challenges of ensuring that firms and brokers employ algorithms in a way that does not improperly place their interests over their clients, and this is especially important for fiduciaries. Any attempt by any individual or firm to improperly benefit from the use of predictive analytics would violate the mission and spirit of the Securities and Exchange Commission and other regulatory bodies, and this is precisely what the proposed rules seek to combat.

Artificial intelligence holds great promise for humanity. With this great promise, however, comes great concern. AI threatens to impact markets far and wide and place the soundness of our financial markets and economies in the hands of algorithms. Moreover, *companies are adopting AI at an ever-increasing rate, with one recent study showing that from 2022 to 2025, the percentage of firms declaring that AI was critical to their business jumped from 8% to a projected 43%.*¹ One of the major concerns is that artificial intelligence algorithms may converge to several dominant versions, which will drive the behaviors of key market players. If only several companies design and operate the fundamental algorithms that major market players rely upon, this could lead to the "herding effect," where markets may move in unison as events unfold.

From an individual investor standpoint, the inherent complexity of AI is difficult to contemplate. Such technologies can make detecting conflicts of interest with advisers more challenging or even impossible. Many of the most cutting-edge predictive methods result from "black box" data analytic modeling technologies, which may lead to predictive accuracy but are also the most difficult to unravel or explain. Unlike white box models (which rely on a few stated and disclosed rules or principles), black box models can rely upon hundreds or thousands of rules composed into decision trees or even billions of parameters to inform outputs. For this reason, advisers may not comprehend or understand the basis of any client recommendations resulting from AI technologies and predictive analytics.

The danger here is evident. Broad adoption of AI in the investing world (in its worst manifestation) surrenders investment guidance to the machines.² From a detection standpoint, many are concerned about how such "black box" predictive data analytics, where models develop through machine learning, may make understanding how models generate recommendations or investment

¹ Thormundsson, Berger, (2022) "Adoption rate of AI in Global Finance Business 2022-2025," Statista, available at: <https://www.statista.com/statistics/1346736/ai-function-adoption-rates-business-finance/>

² See, generally, Candelon, F., Evgeniou, T., & Martens, D. (2023), "AI Can Be Both Accurate and Transparent," Harvard Business Review. Available at: <https://hbr.org/2023/05/ai-can-be-both-accurate-and-transparent>

decisions noisy and complex. Additional concerns arise from any possibility that such models may encounter and incorporate corrupted, mislabeled, or biased data or data from unknown sources.

The proposed AI rule has faced several criticisms. Among them is the complaint that the definition of "covered technology" concerning AI or AI-adjacent technology is overly broad in scope. The proposed rule is defined as any "analytical, technological, or computational function, algorithm, model, correlation matrix, or similar method or process that optimizes for, predicts, guides, forecast or directs investment-related behaviors or outcomes."³ Using this proposed definition would require evaluating all technology tools utilized by broker-dealers and investment advisers to determine if any foreseeable misuse could arise.⁴

A fair interpretation of this rule may require firms to evaluate using tools such as Excel and mathematical formulas to price securities to be included in such a wide net. The rule, as it is currently written, extends beyond traditional boundaries to include any use of technology in which the firm considers the interests of the broker-dealer. This expansion holds the potential to inadvertently stifle innovation and impede the growth of AI technologies within American and global financial markets. While on the one hand, there may be a need to regulate technologies with vast potential to impact markets, on the other hand, the scope of the proposed rule is so broad as to cover virtually every form of technology. This makes the proposed rule so broad as to lose its meaning in application. Even old technologies lacking sophistication that are not the rightful target of SEC regulation may, nonetheless, be implicated. Legacy platforms and technology, which have been used by investment advisers and broker-dealers for decades (such as models, spreadsheets, and even calculators), may be caught up in the regulatory net.

For this reason, the SEC should delineate what technologies are covered by the proposed rules and, just as importantly, what technologies are not. To avoid confusion, the SEC should clearly and explicitly exempt certain legacy technologies from coverage under the proposed rules, thus reducing the scope of compliance and the magnitude of associated costs. Accordingly, this group recommends refining the proposal to target those technologies and only those the SEC intends to target.

Transparency, Disclosure and Consent

This group also recommends that the SEC require all broker-dealers and advisers to disclose how they use AI and other predictive analytical technologies to clients and investors. Investors deserve to understand the basis of investment recommendations and whether the firm utilizes AI to craft such proposals. Investors also deserve to understand what measures the firm is using, how they impact investors, and what it means for broker-dealer and adviser fee generation. Firm disclosures should include a dollar value and line-by-line disclosure of precise fee information related to technologies utilized. Firms should also be required to issue a licensed professional's signed affirmation to verify the disclosures' accuracy. Looking to other examples may provide helpful guidance to the Commission. On July 13, 2023, for example, the Cyberspace Administration of China (CAC), the primary cyber security regulator of the People's Republic of China, passed legislation that may be of interest for illustrative purposes and in reigning in abuses of "Generative AI" technology. This legislation places responsibility for the legal and ethical use of AI on the service provider. In this

³ Prop. § 240.151-2(a); see also 88 Fed. Reg. 53,960, 54,021 (August 9, 2023).

⁴ Prop. § 240.151-2(b)(1); see also 88 Fed. Reg. at 54,022.

example, all generated material (incl. text, pictures, audio, and video) must have a “mark” to show that it was artificially generated.⁵ Likewise, the Commission should require broker-dealers and advisers utilizing such technologies to disclose AI usage publicly and with particularity. AI-driven recommendations should be identified, partly due to broker-dealer and adviser obligations for suitability and due diligence.⁶ This should include adviser affirmations that all recommendations have been reviewed and found to both serve the client's investment best interests and not wrongly benefit the adviser against the client's interests.

Narrow Scope of Proposals Leave Much to Be Done

Looking ahead, the Securities and Exchange Commission (SEC) has expressed intentions to promulgate additional guidance and instigate enforcement actions pertinent to Artificial Intelligence (AI). However, the current proposed rule focuses primarily on investor/firm conflicts of interest. While we understand this limitation and that regulatory action is likely to follow, the current proposals overlook other critical aspects of AI utilization in financial services. The narrow concentration of the proposed rules limits the regulatory framework's comprehensiveness and effectiveness. Therefore, it is imperative to closely monitor these developments as they will significantly influence the future regulatory landscape for AI in financial services.

Privacy and Intellectual Property Concerns

Data ownership and control issues have become important in the context of artificial intelligence (AI) systems. Predictive analytic technologies, which rely on large and diverse datasets, raise concerns regarding not only the accessibility of their data but also the lack of transparency in data collection and storage. AI models rely on vast data sets, otherwise known as *big data*. As machine learning and artificial intelligence increasingly take on a more prominent and significant role in the world of finance and investing, the source of data and its compliance with national, international, state, and local privacy laws comes into question.⁷

Moreover, the privacy of personal details contained within these datasets has emerged as a significant concern for the public. As AI usage increases, there is a fear that sensitive personal information, including financial and personally identifiable information, could be exposed. This could also include personal information, copyrighted information, or other protected data scrapped from big data sources and the internet in general. For this reason, the SEC must apply holistic regulatory measures instead of piece-meal regulation solutions. The Commission must promptly and aggressively protect artificial intelligence and big data privacy rights. Additionally, the potential

⁵ Sheng (Jia), Jenny, Ko, J., Liu, J. Y., Farmer, S., Chunbin Xu, Wenjun Cai, & Fred Ji. (2023). China Finalizes Its First Administrative Measures Governing Generative AI. *Intellectual Property & Technology Law Journal*, 35(8), 17–19.

⁶ Artificial intelligence poses complex due diligence and suitability problems in that many of its findings are unexplainable in that it can examine issues on almost countless dimensions. AI usage places broker-dealers and advisers with fiduciary obligations in the problematic position of relying upon recommended advice they need help understanding and explaining. Candelon, F., Evgeniou, T., & Martens, D. (2023), “AI Can Be Both Accurate and Transparent,” *Harvard Business Review*. Available at: <https://hbr.org/2023/05/ai-can-be-both-accurate-and-transparent>

⁷ Forman, J., Goody-Guillen, T., Quailley, S., Sherer, J., & Tanner, G. (2023) “SEC Proposes AI Rules for Broker-Dealers and advisers After Chair’s Warnings,” *JD Supra*. Available at: <https://www.jdsupra.com/legalnews/sec-proposes-ai-rules-for-broker-3000065/>

misuse of intellectual property is another public concern, including proprietary data exploited for financial gain without proper authorization or compensation.

Recordkeeping & Audit Trail Recommendations

The proposed rule's main import is that advisers and broker-dealers take direct action to eliminate or neutralize the impact of conflicts of interest that place the interests of the respective firm ahead of the interests of the client or investor. The proposal requires firms to implement written policies and procedures reasonably designed to achieve compliance. This would consist of (i) a written process to evaluate any covered technology, (ii) a written process to evaluate features of a covered technology that may create conflicts of interest, (iii) a written description of a process to determine whether a conflict exists that places the interests of the firm above that of the investor, (iv) a written process for determining how to eliminate or neutralize any said conflict, (v) a review process of these steps on at least an annual basis.

While we support the aforementioned provisions, a broker-dealer/adviser fee claw-back provision should also be included in the regulation. When any AI-driven conflict of interest, or possible conflict of interest, is identified, advisers must disclose this to the client. Moreover, firms must return any fees wrongfully allocated to the firm to the investor and report the event to licensing authorities and the Commission. Finally, firms must incorporate a mandatory audit-trail system into all recordkeeping structures and that one qualified person be designated to design, implement, and maintain said system. Such individual shall report to the CFO and CEO, and the CEO and CFO should be required to provide affirmations under the pains and penalties of perjury that said system is adequately designed, implemented, and functioning. Any problems with such systems should require mandatory disclosure to investors, licensing authorities, and the SEC.

We encourage the Commission to examine the potential of blockchain technology for documenting algorithmic integrity and compliance. As a decentralized and unchangeable ledger system, blockchain holds vast potential for recording transactions. From an auditing perspective, blockchain technology presents several benefits. It offers a secure chronological record, serving as an optimal audit trail. All transactions are irreversible, timestamped, documented in real-time, encrypted, and immune to alteration or deletion. For these reasons, blockchain holds promise as a vital tool for AI audit trail composition.

Additional Considerations

The labor involved with handling AI issues and properly implementing AI platforms will derive from a mix of traditional and non-traditional sources of finance industry labor, i.e., freelance consultants and individuals, as well as those formally educated on the topic. As the stakes are so high, the SEC, FINRA, and NASAA should consider developing and issuing algorithmic licenses (along with annual registration and regulatory supervision requirements) to artificial intelligence professionals who wish to develop financial algorithms destined for the marketplace.

Finally, the Commission should keep costs in mind. New regulations bring many charges, with implementation and training expenses on the front end and monitoring and recordkeeping on the other. Such fees will impact brokerage and advisers differently, with the smallest firms likely to bear

the most significant burden. Firms with robust systems may incur some of these costs, but proposed rules will likely increase expenditures for all. As brokers and advisers eventually pass on all costs to clients, and as costs detract from compounding, the Commission must consider regulatory compliance expenditures.

Concluding Remarks

In closing, we are excited that the SEC is taking bold steps to regulate the securities markets and protect the public. We encourage the SEC to examine other vital areas that require regulatory attention, including privacy, bias, deception, and, perhaps most importantly, financial stability. AI technologies in the financial markets promise to make markets more efficient. Predictive technologies can optimize for, predict, guide, or direct investment-related behaviors or outcomes while anticipating risks and shocks. While such technologies hold great promise, they present genuine dangers to the markets and investors. We encourage that the SEC act aggressively and holistically in issuing further regulations, with an understanding that, while artificial intelligence is broadly used in the markets today, its potential to cause great harm should not be underestimated.

Respectfully submitted,



Bryson Cornelison
Senior, Wright School of Business, Dalton State College



Isaac Lacle
Senior, Wright School of Business, Dalton State College



Kieran Jackson
Senior, Wright School of Business, Dalton State College



Ian T. Lazo
Senior, Wright School of Business, Dalton State College



Jose F. Garcia
Senior, Wright School of Business, Dalton State College



Patrick Ryle
Assistant Professor of Accounting

Bryson Cornelison, BBA Finance and Applied Economics
Wright School of Business, Dalton State College

Isaac Lacle, BBA in Finance and Applied Economics
Wright School of Business, Dalton State College

Kieran Jackson, BS in Mathematics in Actuarial Science
Wright School of Business, Dalton State College

Ian Lazo, BBA in Finance and Applied Economics
Wright School of Business, Dalton State College

Jose Garcia, BBA in Finance and Applied Economics
Wright School of Business, Dalton State College

Patrick Ryle, Assistant Professor of Accounting-Corresponding Author
Wright School of Business, Dalton State College

Acknowledgments

Thank you to Mr. John H. Wilson, MBA, Director of Analytics, North Georgia EMC, for his insights into the use of blockchain technology to ensure the immutability of transactions and provenance of decisions made by Artificial Intelligence. We would also like to thank Dr. Marilyn Helms for her support and dedication to ensuring students at Dalton State College have every opportunity to succeed and further their academic careers. Thank you to our colleagues, Colby Britton, Lindsey Guess, and Sarah Joseph, who worked hard researching and presenting related material with the aforementioned authors regarding this proposal.

References and Sources:

- Adams, D. G. (2023, September 29). *The US Securities & Exchange Commission targets AI on multiple fronts - AI: The Washington Report*. Legal News & Business Law News. <https://www.natlawreview.com/article/us-securities-exchange-commission-targets-ai-multiple-fronts-ai-washington-report>
- Gidea, K., Valentine, Z. (2023). *Danger, does not compute: SEC takes aim at predictive data analytics per proposed rules*. JD Supra. (2023, September 14). <https://www.jdsupra.com/legalnews/danger-does-not-compute-sec-takes-aim-3356363/>
- Gensler, G. SEC. (2023, July 17). <https://www.sec.gov/news/speech/gensler-isaac-newton-ai-remarks-07-17-2023>
- Kumayama, K, Levi, S., Rips, A., Schlossberg, R. (2023, August 10). *Sec proposes new conflicts of interest rule for use of AI by broker-dealers and investment advisers: Insights: Skadden, Arps, Slate, Meagher & Flom LLP*. Insights | Skadden, Arps, Slate, Meagher & Flom LLP. <https://www.skadden.com/insights/publications/2023/08/sec-proposes-new-conflicts>
- PYMNTS.com. (2023, July 17). *SEC chair Gary Gensler says agency developing rules for AI use*. Pymnts.com. <https://www.pymnts.com/artificial-intelligence-2/2023/sec-chair-gary-gensler-says-agency-developing-rules-for-ai-use/>
- SEC. (2023, July 26). *Conformed to federal register version securities and exchange ...* - sec.gov. <https://www.sec.gov/files/rules/proposed/2023/34-97990.pdf>
- SEC, Press release. SEC. (2023a, July 26). <https://www.sec.gov/news/press-release/2023-140>
- Sheng (Jia), Jenny, Ko, J., Liu, J. Y., Farmer, S., Chunbin Xu, Wenjun Cai, & Fred Ji. (2023). *China Finalizes Its First Administrative Measures Governing Generative AI*. *Intellectual Property & Technology Law Journal*, 35(8), 17–19.
- United States Small Business Administration. Advocacy, O. of. (n.d.). *The regulatory flexibility act*. SBA's Office of Advocacy. <https://advocacy.sba.gov/resources/the-regulatory-flexibility-act/>