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THE SLOW BURN OF ARTIFICIAL INTELLIGENCE REGULATION IN THE FINANCIAL SERVICES INDUSTRY

Artificial Intelligence (“AI”) has become a formidable ally to the financial services industry by fundamentally altering operations and creating efficiencies across various functions. As financial institutions increasingly integrate AI into their business models, heightened expectations for transparency and accountability have raised concerns among U.S. regulators, who, while acknowledging AI’s advantages, have raised concerns about the potential for systemic risk. The SEC and CFTC, for example, are examining existing law and guidance for their applicability to the unique challenges posed by AI and weighing the need for specific regulations targeted at the technology. This article explores how AI has empowered financial institutions to enhance their performance and competitiveness, while also examining best practices for navigating the evolving landscape of regulatory oversight.

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AI has revolutionized the private sector, fundamentally altering both day-to-day operations and long-term strategies. Its applications are extensive and increasingly integral to the financial ecosystem, from automating routine tasks to detecting fraudulent activities in real-time. AI’s benefits, including unparalleled opportunities for efficiency gains, enhanced security measures, and improved regulatory compliance, will continue to influence the rapid scale and spread of use in the sector, with the International Monetary Fund

projecting that financial institutions will spend double on AI by 2027.¹

¹ Jeff Kearns, International Monetary Fund, Finance & Development Magazine, “AI’s Reverberations Across Finance” (Dec. 2023), available at <https://www.imf.org/en/Publications/fandd/issues/2023/12/AI-reverberations-across-finance-Kearns>.

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But increased adoption has raised concerns across financial market regulators, who believe that while the technology has great potential, it also introduces new risks and challenges to the markets and their participants. Although presently confined to policy statements and guidance, certain regulators, like the U.S. Securities and Exchange Commission (“SEC”), are using existing laws to bring enforcement actions in the absence of AI regulation. For financial market participants, adhering to regulatory guidance while embracing innovation remains a balancing act, especially where financial performance relies on staying competitive. Accordingly, this article addresses the benefits of AI in the U.S. financial markets, as well as the government’s increased focus on the regulatory risks associated with its use, including how to guard against that scrutiny in the absence of clear regulation.

I. BACKGROUND

AI is an umbrella term used to describe the field of computer science focused on the creation of machines that can replicate human intelligence and behavior. The goal of AI is to create autonomous systems, or software, that can independently plan and decide sequences of steps to achieve a specified objective without human involvement or micro-management.² While traditional programming requires the creation of detailed instructions for the computer to follow, this process requires extensive human investment — time, money, education, energy, frustration, etc. AI, however, enables a computer to effectively eliminate the middleman in the learning process, ultimately achieving the same functionality as traditional programming and even surpassing it.

Machine Learning (“ML”) is a subfield of AI focused on how computer systems may enhance their perception, knowledge, thinking, and actions based on experiences or data. Through use of algorithms, ML enables computers to identify patterns and make decisions

without the need for explicit programming.³ The process starts with training data, which is processed and analyzed by statistical algorithms to identify patterns and make predictions with minimal or no human intervention. Over time, human programmers can “adapt” the model, including changing its parameters to help push it toward more accurate results.⁴

ML has several subcategories of learning algorithms, which vary depending on the level of human intervention required to label the training data.⁵ For example, “supervised learning” requires labeled data sets for training to teach the algorithm to learn a general rule of classification it will then use to predict labels for remaining observations in the data set.⁶ Conversely, “unsupervised learning” consists of unlabeled data, which forces the algorithm to detect patterns by identifying clusters of observations with similar underlying characteristics.⁷ Because this method does not rely on predefined categories, the algorithm is left to detect hidden structures and/or relationships within the data, which makes it a particularly useful exercise in recognizing more complex datasets. Finally, “Reinforcement” machine learning trains machines through trial and error. Incentivized by an established reward system, a reinforcement model is trained to find and take the most optimized action out of a series of options.⁸

Another subfield of AI, Deep Learning, is a

² Kathleen Walch, Forbes, “The Autonomous Systems Pattern of AI” (May 30, 2020), *available at* <https://www.forbes.com/sites/cognitiveworld/2020/05/30/the-autonomous-systems-pattern-of-ai/>.

³ Sara Brown, MIT Management Sloan School, “Machine learning, explained” (Apr. 21, 2021), *available at* <https://mitsloan.mit.edu/ideas-made-to-matter/machine-learning-explained>.

⁴ Paul Tierno, Congressional Research Service, *Artificial Intelligence and Machine Learning in Financial Services* (Apr. 3, 2024), p 2, *available at* <https://crsreports.congress.gov/product/pdf/R/R47997>.

⁵ Financial Stability Board, *Artificial intelligence and machine learning in financial services* (Nov. 1, 2017), p 4, *available at* <https://www.fsb.org/wp-content/uploads/P011117.pdf>.

⁶ *Id.*

⁷ *Id.*

⁸ Note 3, *supra*.

sophisticated form of ML that operates through artificial neural networks inspired by the structure of the human brain. This technology consists of layered networks of interconnected nodes (also called “neurons”) that process data in a hierarchical manner. Nodes determine and assign “weight” to each link in the network to enable the system to learn complicated patterns. Accordingly, the number of layers correlates to the potential for the technology to perform complex tasks.⁹

Relevant here, among ML’s capabilities is natural language processing, in which computers learn to recognize, generate, and understand natural language or “text,” thus resulting in more intuitive and natural human-robot interaction. These increases in efficiency lead to enhanced productivity, where, for example, companies focused on customer service can use AI-driven chatbots to quickly address common inquiries, which allows for better allocation of human talent.

II. USE CASES IN FINANCIAL SERVICES

According to SEC Chair Gary Gensler, “AI is the most transformative technology of our time.”¹⁰ Indeed, it has proven itself to be a formidable ally to financial market participants: the mass amounts of data and diverse product offerings necessarily result in the need for innovative solutions to maximize efficiency while increasing profitability and managing risk. Accordingly, AI is being used in finance in a variety of ways, including in the automation of routine functions or in more complex and nuanced tasks such as monitoring transactions for fraud.

A. Client Service

Banks and financial firms have been using virtual assistants or chatbots to transform customer interactions. This technology can efficiently handle basic customer inquiries, providing real-time responses regarding balances, holdings, and market data. Some firms even use virtual assistants to accept and process trade orders within predefined thresholds,¹¹ which, in turn, streamlines the client experience and improves

operational efficiency. The U.S. Consumer Financial Protection Bureau (“CFPB”) estimates that in 2022, over 98 million users engaged with a bank’s chatbot, a number that is projected to grow to 110.9 million users (or approximately one-third of the U.S. population) by 2026.¹²

B. Use in Capital Markets

Financial institutions have also adopted AI to “identify and exploit investment opportunities, allocate capital, execute trades, and reduce cost, with the latter ultimately allowing [firms] to reach more customers.”¹³ As an initial matter, AI models are often used to analyze sophisticated data given their ability to review large amounts of documents and information. It can therefore efficiently identify trends, assess risks, and uncover certain investment opportunities, potentially resulting in a more informed decision-making strategy. But AI is often used for more tangible exercises in the capital markets, including in asset management and trading.

Investment advisers have used AI to provide automated investment advisory services pursuant to algorithms. These “robo-advisors” often provide fee-conscious customers the opportunity to create investment portfolios based on certain parameters, including in the areas of customer goals and risk tolerance. Depending on the robo-advisor, customers can also choose between opening a taxable account or a retirement account, such as an IRA or Roth IRA, which provides further flexibility and options for customers who do not have the time or expertise to manage their own investments.

Algorithmic trading or algo trading uses AI-backed algorithms to make trading decisions based on pre-set rules where a trader or investor writes a code that executes trades when certain conditions are met. Code can help analyze market trends depending on price, resistance, volume, or other factors; it can help monitor the average high and low of stocks; and it can engage in arbitrage strategies through monitoring multiple assets and markets simultaneously. In high frequency trading, a subset of algo trading, systems are used to buy and sell at a much greater scale — in milliseconds or even microseconds. Because of this, high-frequency trading necessarily focuses on real-time market data as opposed

⁹ *Id.*

¹⁰ SEC, YouTube, “SEC Chair Gary Gensler on AI Washing” (Mar. 18, 2024), available at https://www.youtube.com/watch?v=4L_jxkZ9V6U.

¹¹ Fin. Ind. Reg. Auth., *Artificial Intelligence (AI) in the Securities Industry: AI Applications in the Securities Industry*, available at <https://www.finra.org/rules-guidance/key-topics/fintech/report/artificial-intelligence-in-the-securities-industry/ai-apps-in-the-industry>.

¹² CFPB, *Chatbots in Finance* (June 6, 2023), available at <https://www.consumerfinance.gov/data-research/research-reports/chatbots-in-consumer-finance/chatbots-in-consumer-finance/>.

¹³ Fn. 2, *supra*, at p 8.

to conducting research and analysis to inform a decision at a future date.

The COVID-19 pandemic greatly increased the implementation and use of innovative trading solutions like algo trading, especially given increased volatility and trade volumes.¹⁴ Recent studies indicate a continued market growth in algo trading software because of the growing complexity of the financial markets and parallel emphasis on operational scalability, with the software market expected to grow to \$2.5 billion in 2024.¹⁵ This increased reliance may result in improved liquidity because of the speed at which orders are captured, thus resulting in higher commissions.

C. Managing Regulatory Risk

AI has also proven itself a risk mitigation co-pilot where technology solutions, known as “RegTech,” are stepping in to assist institutions in meeting regulatory requirements. Generally, the use of RegTech assists with improving compliance outcomes and generating insights that improve decision-making functions,¹⁶ but its utility shines in areas of risk management.

According to the Financial Industry Regulatory Authority (“FINRA”), industry participants are spending significant time and resources developing AI applications to enhance compliance and risk management functions.¹⁷ With these tools, investment

advisers and broker-dealers can better engage their data to minimize risk and safeguard customer information. For example, AI tools are being used for know-your-customer and financial-monitoring programs, such as with respect to detection of money laundering, terrorist financing, bribery, tax evasion, insider trading, market manipulation, and other illegal activities.¹⁸ The technology is also being used to better interface with regulations, where intelligence management programs help firms better interpret and comply with new and evolving rules and regulations to assist in incorporating changes to existing compliance programs.¹⁹ Use of the technology ultimately reduces costs and time spent in interpreting guidance and implementing changes and has the potential to lessen the risk of regulatory inquiry or enforcement for certain compliance failures.

III. RISKS OF AI USE FOR BROKER-DEALERS AND INVESTMENT ADVISERS

While AI certainly boasts a number of benefits for firms and their investors, the technology also raises several concerns that have resulted in incidents that highlight ethical issues within AI applications. Below are some examples of the challenges AI presents to securities market participants that should be considered when weighing best practices for adoption or continued use of the technology.

- **Bias and Unreliable Outputs.** The integrity of data input into AI systems is key and bad data can result in bad outputs. Generative AI tools have the potential for such outputs, providing users with fabricated data that appears authentic. Reliance on these inaccuracies is a significant concern and can potentially lead to flawed decisions and financial losses. Accordingly, one way to maintain data’s accuracy and reliability is to guard against issues of data bias — where algorithms produce results that reflect and perpetuate human biases, including historical and social inequities. Bias can occur in various stages of AI, such as in data collection, training, and deployment, resulting in discriminatory outcomes in areas of gender, race, or ethnicity.
- **Data Privacy and Cybersecurity.** The large amounts of data accessible to AI can also lead to the mishandling of sensitive financial and other private data, which can, in turn, compromise customer privacy and expose institutions to certain

¹⁴ Fortune Business Insights, *Algorithmic Trading Market Size, Share & COVID-19 Impact Analysis, By Type (Stock Market, Foreign Exchange Exchange-Traded Fund, Bonds, Cryptocurrencies, and Others, By Deployment (Cloud and On-premise), By End-user (Short-term Traders, Long-term Traders, Retail Investors, and Institutional Investors, and Regional Forecast, 2023-2030* (June 24, 2024), available at <https://www.fortunebusinessinsights.com/algorithmic-trading-market-107174>.

¹⁵ Research and Markets, *Algorithmic Trading Software Global Market Report 2024* (June 2024), available at https://www.researchandmarkets.com/report/automated-trading?utm_source=GNE&utm_medium=PressRelease&utm_code=jpg2rp&utm_campaign=1929935+-Algorithmic+Trading+Market+Forecast+Reveals+Impressive+Growth+By+2032&utm_exec=cosmmsai.

¹⁶ Financial Stability Board, *The Use of Supervisory and Regulatory Technology by Authorities and Regulated Institutions* (Oct. 9, 2020), available at <https://www.fsb.org/wp-content/uploads/P091020.pdf>.

¹⁷ Fn. 8, *supra*.

¹⁸ *Id.*

¹⁹ *Id.*

reputational and regulatory risks. This includes questions concerning how the data is used and who may have access to it. Relatedly, inadequate safeguards can lead to unauthorized access to data by bad actors, including in instances of weak protocols (e.g., insufficient encryptions). Malware and ransomware are not just information technology concerns: even AI platforms are at risk and AI itself can be used to generate malware quickly and easily.

- *Conflicts of Interest.* When broker-dealers or investment advisers place their own interests above clients in an AI model, either through how the AI is programmed or the data it is trained on, the result will be skewed in favor of the firm. This may result in fiduciary breaches and financial harm.
- *Deception and Fraud.* There are, of course, a number of ways in which bad actors can threaten the stability and integrity of financial markets. This includes situations where deepfakes target individuals or entities for access and authorization to accounts or to perpetuate false information. AI can also help bad actors combine real and fake information to fabricate personas to open accounts (synthetic identity theft), or where government documents are required, AI can assist those actors in forgery to circumvent identity verification requirements.

IV. A UNIFIED GOVERNMENT POLICY?

Despite these challenges, the rapid rate of technological advancement is seemingly outpacing the government's ability to respond and regulate. Thus, in the absence of a unified or overarching regulation, AI is governed by a mix of the federal government, state governments, and the courts. And, while recent guidance is not wholly specific to financial services or the financial markets, these actions will continue to set the stage for federal agencies to propose and enact AI regulations, while also encouraging those agencies to examine how they can harness the technology for their own purposes.

A. The Biden Administration

In October 2023, the Biden Administration issued an Executive Order governing the development and use of AI in a safe and responsible manner, while working with federal agencies to regulate and disperse the benefits of the technology.²⁰ The Executive Order, titled "Safe,

Secure, and Trustworthy Artificial Intelligence" ("Biden EO"), followed a number of actions reflecting a government-wide approach to achieving unified guidance on AI, including (1) the White House's Blueprint for an AI Bill of Rights,²¹ which set guidelines around the responsible use and design of AI systems; (2) the National Institute of Standards and Technology's ("NIST") Risk Management Framework 1.0;²² and (3) the White House's effort to obtain "AI commitments" from leading companies to promote the safe, secure, and transparent development of generative AI.²³

In accordance with promoting a collective response to AI and associated technologies, the Biden EO focuses, in part, on the government's own use and deployment of AI. In doing so, it recognizes not only the potential for AI to improve regulation and governance but its ability to cut costs and enhance security of government systems.²⁴ Specifically, the EO tasks federal agencies with over 100 actions, all intended to advance the U.S. as the global leader in AI. These tasks include (1) issuance of guidance for federal agencies' use of AI targeted at protection of rights and safety; (2) help with acquiring AI products and services in a more efficient and cost-effective manner; and (3) acceleration of hiring of AI professionals, as well as AI training for employees at all levels in relevant fields.²⁵ In other words, while the Biden EO has far-ranging reach including safety, security, privacy, and equity, it also very much encourages agencies to invest in these technologies and train employees in their use, which will likely impact

(Oct. 30, 2023), available at <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/>.

²¹ The White House, *Blueprint for an AI Bill of Rights*, available at <https://www.whitehouse.gov/ostp/ai-bill-of-rights/>.

²² NIST, *Risk Management Framework 1.0*, available at <https://nvlpubs.nist.gov/nistpubs/ai/nist.ai.100-1.pdf>.

²³ The White House, *Voluntary AI Commitments*, available at <https://www.whitehouse.gov/wp-content/uploads/2023/09/Voluntary-AI-Commitments-September-2023.pdf>.

²⁴ The White House, *FACT SHEET: President Biden Issues Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence* (Oct. 30, 2023), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/fact-sheet-president-biden-issues-executive-order-on-safe-secure-and-trustworthy-artificial-intelligence/>.

²⁵ *Id.*

²⁰ The White House, *Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence*

disclosures, surveillance, and enforcement in the next several years.

Relatedly, and in furtherance of this directive, in November 2023, Vice President Kamala Harris announced the Office of Management and Budget's ("OMB") draft policy, "Advancing Governance, Innovation, and Risk Management for Agency Use of Artificial Intelligence."²⁶ The draft sought public comment on proposals concerning AI governance structures in federal agencies, including the designation of a Chief AI Officer and the responsibilities associated with such a position. An official government-wide policy was announced in March 2024, which included the requirement for federal agencies to designate Chief AI Officers and to establish AI Governance Boards.²⁷ That said, given the recent result of the election, certain elements of the Biden Administration's policies will necessarily fall off if not be disbanded entirely. Indeed, while President-Elect Trump previously promised to repeal the Biden EO, bipartisan elements of the order, especially in the areas of national security, may be preserved or even expanded.

B. The Congress

Congress, however, has been slower in adopting a unified front on AI. And while efforts to pass comprehensive legislation have seemingly stalled, both chambers of Congress have made significant efforts to research, analyze, and tackle AI-related concerns through the creation of bipartisan taskforces and working groups. For example, in January 2024, the House of Representatives Financial Services Committee announced the creation of a bipartisan AI working group tasked with exploring how AI "is impacting the financial services and housing industries, including the development of new products and services, fraud prevention, compliance efficiency, and the enhancement of supervisory and regulatory tools, as well as how AI

may impact the financial services workforce."²⁸ In February 2024, the House of Representatives created a bipartisan task force on AI,²⁹ and in May 2024, Senate Majority Leader Charles Schumer released a roadmap for AI use by the U.S. Senate, wherein he also recommended that Congress spend at least \$32 billion annually over the next three years to develop AI and place safeguards around it.³⁰

That said, at the federal government level, the biggest strides in AI analysis, governance, and regulation have come from financial market regulators, the SEC and the Commodity Futures Trading Commission ("CFTC").

V. THE U.S. MARKET REGULATORS

A. The CFTC

The CFTC has been focused on emerging technology for some time. The TAC meets regularly, convening the public and private sectors to discuss current issues presented by technology and report its findings to the CFTC.

The CFTC also created LabCFTC in 2017, whose mission centered on providing regulatory certainty to innovators and users of innovative technology, and identifying technologies the CFTC could use in carrying out its oversight and enforcement mission. In late 2019, LabCFTC issued an AI primer in which it identified AI as a technology with the potential to enhance CFTC-regulated markets and committed to engaging relevant stakeholders to promote it. The interest is twofold: (1) to identify ways in which AI can enhance the CFTC's technology and oversight and (2) to ensure that CFTC regulations are appropriate for AI and its use in the markets the CFTC oversees. LabCFTC later became the Office of Technology Innovation under Chair Rostin Behnam.

²⁶ Office of Management and Budget, *Proposed – Advancing Governance, Innovation, and Risk Management for Agency Use of Artificial Intelligence*, available at <https://www.whitehouse.gov/wp-content/uploads/2023/11/AI-in-Government-Memo-draft-for-public-review.pdf>.

²⁷ Office of Management and Budget, *Advancing Governance, Innovation, and Risk Management for Agency Use of Artificial Intelligence* (March 28, 2024), available at <https://www.whitehouse.gov/wp-content/uploads/2024/03/M-24-10-Advancing-Governance-Innovation-and-Risk-Management-for-Agency-Use-of-Artificial-Intelligence.pdf>.

²⁸ U.S. House of Representatives Committee on Financial Services, Press Releases, *McHenry, Waters Announce Creation of Bipartisan AI Working Group* (Jan. 11, 2024), available at <https://financialservices.house.gov/news/documentsingle.aspx?DocumentID=409108>.

²⁹ David Shepardson, Reuters, *US House forms AI task force as legislative push stalls* (Feb. 20, 2024), available at <https://www.reuters.com/world/us/us-house-forms-ai-task-force-legislative-push-stalls-2024-02-20/>.

³⁰ Gopal Ratnam, Roll Call, *Schumer proposes \$32 billion annual spending under AI road map* (May 15, 2024), available at <https://rollcall.com/2024/05/15/schumer-proposes-32-billion-annual-spending-under-ai-road-map/>.

1. Recent Activity and Responsible AI Use in the Derivatives Markets

The CFTC's efforts have seemingly crystallized this year. On January 25, it issued a request for comment on the use of AI in CFTC-regulated markets.³¹ Topics on which comment was sought include the definition of AI and its application (e.g., its use in risk management, trading, compliance, recordkeeping, data processing and analytics, customer interactions, and cybersecurity). The CFTC also asked for input on risks of AI in its markets. Although fewer than 25 comment letters were submitted, they were submitted by prominent trade associations and exchanges, both traditional and crypto. The CFTC plans to use those comments in charting next steps with regard to AI regulation, particularly on its use by CFTC registrants and regulated markets. Such efforts could include rulemaking, interpretive guidance, or policy statements.

Within two months of issuance of the OMB memorandum, there was a flurry of activity at the CFTC in May 2024. On May 1, CFTC Chair Behnam announced the designation of Dr. Ted Kaouk as the agency's first Chief AI Officer,³² whose mission is to identify the ways in which AI can enhance and improve the CFTC's oversight, surveillance, and enforcement in the markets it oversees. In the CFTC's press release announcing Dr. Kaouk's designation, there was no mention of the role he will play in designing appropriate regulation or around use of AI; however, the logical inference is that he will have a role in that part of the CFTC's mission given the press release coincided with AI-related policies and programming. Namely, CFTC Commissioner Kristin Johnson announced the CFTC's agenda for AI in the financial markets, which will include a "principles-based framework to assess the risks of integrating certain AI technologies" in CFTC-regulated markets and heightened penalties for the misuse of the technology.³³

The framework highlights and aligns with the Commissioner Christy Goldsmith Romero-led report to facilitate an understanding of the impact of AI on the financial markets. The report, released by the TAC Subcommittee on Emerging and Evolving Technologies,³⁴ issued five recommendations to the CFTC on responsible AI in financial markets:

- *Public Engagement:* The CFTC is encouraged to host a public roundtable discussion and directly engage in outreach with CFTC-registered entities to gain insight into the types of AI technologies used more frequently. The purpose of this roundtable is to inform the CFTC about key technical and policy considerations regarding AI use in the financial markets.
- *Definition and Adoption of an AI Risk Management Framework:* Adoption of a risk management framework for the sector could ensure understanding of the norms and standards being developed by NIST. Introducing those practices to CFTC-regulated industries could promote financial markets and a regulatory system that are more resilient to emerging AI technologies.
- *Creation of an Inventory of Existing Regulations Related to AI and Gap Analysis:* The TAC recognizes that existing regulations already require the management of risk; however, there may be a need to clarify guidance or engage in additional rulemaking.
- *Establishment of Processes to Gain Alignment with AI Policies of Other Federal Agencies:* The CFTC is encouraged to leverage and utilize best practices implemented by other agencies, including the SEC and others concerned with financial stability in the U.S. markets.

³¹ CFTC, Rel. No. 8853, *CFTC Staff Releases Request for Comment on the Use of Artificial Intelligence in CFTC-Regulated Markets* (Jan. 25, 2024), available at <https://www.cftc.gov/PressRoom/PressReleases/8853-24>.

³² CFTC, Rel. No. 8903-24, *Chairman Behnam Designates Ted Kaouk as the CFTC's First Chief Artificial Intelligence Officer* (May 1, 2024), available at <https://www.cftc.gov/PressRoom/PressReleases/8903-24>.

³³ CFTC, *Statement of Commissioner Kristin N. Johnson: Articulating an Agenda for Regulating AI* (May 2, 2023), available at <https://www.cftc.gov/PressRoom/SpeechesTestimony/johnsonstatement050224>.

³⁴ CFTC, Rel. No. 8905-24, *CFTC Technology Advisory Committee Advances Report and Recommendations to the CFTC on Responsible Artificial Intelligence in Financial Markets* (May 2, 2024), available at <https://www.cftc.gov/PressRoom/PressReleases/8905-24>.

- *Staff Engagement*: The TAC encourages onboarding and engagement of staff to build out a pipeline of AI experts.

In her remarks about the report, Commissioner Goldsmith Romero highlighted AI's ability to detect unusual activities in real time but also noted its potential to create or exacerbate market instability.³⁵ She emphasized that if it is not possible for some registered entities to put in place sound data governance, the CFTC may be required to propose rules or issue guidance so firms may access AI models in a way that balances the intellectual property interest the creator has in the AI model with the need for the user of the model to manage and report its trading data. The Commissioner suggested that the CFTC and market participants make identifying specific risks that are highly relevant to the CFTC-regulated markets a high priority.

B. The SEC

Much like the CFTC, the SEC is making its concerns on AI use in the financial markets known. On July 17, 2023, SEC Chair Gary Gensler spoke before the National Press Club on the tremendous opportunities AI technology presents but cautioned that it could also “heighten financial fragility.”³⁶ He also highlighted certain AI risks inherent from both a macro and micro perspective. On the macro level, Chair Gensler noted concerns related to data privacy, intellectual property, and financial stability. And from a micro perspective, he asserted that the use of AI models to make predictions poses risks of bias, deception, and conflicts of interest, the last of which ultimately provided the basis for the SEC's proposed AI rules, released just days after Chair Gensler's speech.

1. The SEC's Proposed AI Rules

On July 26, 2023, the SEC proposed rules³⁷ targeted at preventing broker-dealers or investment advisers from using “predictive data analytics” (“PDA”), and similar technologies — which includes AI — in a way that

would place the firm's interests above that of their investors. In other words, the SEC is concerned that a firm could use these technologies to their benefit (such as for revenue-generating purposes), but to the detriment of the investor.³⁸

Under the proposed rules, broker-dealers and investment advisers would be obligated to evaluate any use or reasonably foreseeable potential use of “covered technologies” in any investor interaction with the goal of eliminating or neutralizing the effect of any conflict of interest through implementation of a number of measures:

- First, the proposed rules would require *the adoption and implementation of written policies and procedures*, which would demand firms document compliance and evaluate the use or potential use of PDA and other covered technologies to identify whether they involve conflicts of interest and if so, to eliminate or neutralize the effects of those conflicts.
- Second, the proposed rules would *mandate certain key components of the compliance program*, to include: (1) evaluation of the use or potential use of a covered technology in any investor interaction, (2) identification of conflicts of interest that place the firm's interest ahead of investors, and (3) determination of how to eliminate or neutralize the effect of any such conflicts of interest. Firms must review these components at least annually to ensure their adequacy. The proposed rules did note, however, that interactions solely for purposes of providing clerical, ministerial, or general administrative support — like anti-money laundering checks or general communications to open new accounts — are not within scope of the proposed rules.
- Third, the proposed rules speak to *maintenance of books and records documenting compliance*. According to the proposed rules, firms must also maintain records of their evaluations, including (1) a list of all covered technologies used in investor interactions and when each was first implemented and materially modified and (2) the date of any testing of covered technology, any actual or potential conflicts of interest identified therein, and any resulting modifications or restrictions.

³⁵ *Id.*

³⁶ SEC, Speech, Chair Gary Gensler, “*Isaac Newton to AI*” Remarks before the National Press Club (July 17, 2023), available at <https://www.sec.gov/newsroom/speeches-statements/gensler-isaac-newton-ai-remarks-07-17-2023>.

³⁷ SEC, Rel Nos. 34-97990; IA-6353; File No. S7-12-23, *Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers*, available at <https://www.sec.gov/rules/proposed/2023/34-97990.pdf>.

³⁸ *Id.* at p 20.

Critics of the rule proposal have found that proposed definition of “covered technology” is so expansive in that it would reach common applications and other analytical processes or methods not intended to be covered by the proposed rules. So, too, with the proposed definition of “investor interaction,” which is not limited to a firm’s client and could be interpreted to extend to interactions with other investors to whom the firm owes no duty of care. And the proposed rules were also not unanimously supported by the SEC Commissioners. Commissioners Hester Peirce³⁹ and Mark Uyeda⁴⁰ provided dissenting statements, criticizing the rule as unnecessary or hostile to certain types of technologies. Commissioner Peirce warned that the proposed rules also reject one of the central pillars of the SEC’s regulatory regime — disclosure — by taking the position that no level of disclosure would permit a firm to proceed without eliminating or neutralizing the conflict of interest. To date, a final rule has not been implemented.

2. No Rules? No Problem.

Even in the absence of a comprehensive set of AI regulations, the SEC has managed to make regulation of these technologies a priority. In December 2023, the SEC’s Division of Examinations launched an AI-related sweep of investment advisers’ use and governance of AI technologies.⁴¹ Specifically, the Division sought details on AI-related marketing documents, algorithmic models used to manage client portfolios, third-party providers, compliance training, controls related to conflicts of interest, and contingency plans for systems failures.

Also in December 2023, Chair Gensler started sounding the alarm on “AI washing,”⁴² or

misrepresentations concerning a company’s use of AI and their capabilities. Since then, the SEC has made clear that it would examine instances in which a company or an investment adviser falsely claims certain product uses: SEC Enforcement Director Gurbir Grewal has emphasized the SEC’s commitment to investor protection from AI washing as “more and more investors consider using AI tools in making their investment decisions or deciding to invest in companies claiming to harness its transformational power.”⁴³ Indeed, in 2024, the SEC brought enforcement actions concerning misleading statements around the use of AI, highlighting the importance of accurate disclosures that, if containing aspirational statements, have some grounding in reality and are drafted to make clear that they are, in fact, aspirational.

Finally, the SEC’s Division of Examinations released its 2024 examination priorities, noting that it had established specialized teams to better address emerging issues associated with financial technology, including AI.⁴⁴ The priorities also highlighted a focus on broker-dealers and advisers who offer new products and services around technological solutions, like AI.⁴⁵

3. The SEC’s Guidance

In April, Director Grewal remarked that there is a perfect storm “brewing around AI,” and that it is incumbent upon market participants to ensure that investors are not harmed by noncompliance with securities laws in using these technologies.⁴⁶ “Proactive compliance” is key and requires education on AI’s risks, engagement with company personnel on how AI can intersect with company activities, and execution. Director Grewal also believes that robust and bespoke policies and procedures must be written and implemented, meaning that these compliance efforts

³⁹ SEC, Comm’r Hester M. Peirce, *Through the Looking Glass: Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers Proposal* (July 26, 2023), available at <https://www.sec.gov/newsroom/speeches-statements/peirce-statement-predictive-data-analytics-072623>.

⁴⁰ SEC, Statement, Comm’r Mark T. Uyeda, *Statement on the Proposals re: Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers* (July 26, 2023), available at <https://www.sec.gov/newsroom/speeches-statements/uyeda-statement-predictive-data-analytics-072623>.

⁴¹ Richard Vanderford, Wall Street Journal, *SEC Probes Investment Advisers’ Use of AI* (Dec. 10, 2023), available at <https://www.wsj.com/articles/sec-probes-investment-advisers-use-of-ai-48485279>.

⁴² *Id.*

⁴³ SEC, Press Release, Rel No 2024-36, *SEC Charges Two Investment Advisers with Making False and Misleading Statements About Their Use of Artificial Intelligence* (Mar. 18, 2024), available at <https://www.sec.gov/newsroom/press-releases/2024-36>.

⁴⁴ SEC, Div. of Examinations, *2024 Examination Priorities*, p 4, available at <https://www.sec.gov/files/2024-exam-priorities.pdf>.

⁴⁵ *Id.* at p 19.

⁴⁶ SEC, Speech, Director Gurbir S. Grewal, *Remarks at Program on Corporate Compliance and Enforcement Spring Conference 2024* (Apr. 15, 2024), available at https://www.sec.gov/newsroom/speeches-statements/gurbir-remarks-pcce-041524#_ftnref14.

must be unique to the company and not cribbed from a one-size-fits-all model.

Finally, with respect to individual liability and disclosures concerning security risks from AI, Director Grewal drew a parallel to the SEC's approach on cybersecurity disclosures. He cautioned that the SEC looks at "what a person actually knew or should have known; what the person actually did or did not do; and how that measures up to the standards of our statutes, rules, and regulations."⁴⁷ Therefore, it should be expected that the SEC will continue to focus on AI use, including on those who fail to mitigate risk and comply with the federal securities laws. Conversely, Director Grewal noted, those "who operate in good faith and take reasonable steps" are unlikely to be the target of an investigation or enforcement action.⁴⁸

C. The Role of Existing Laws

Without clearcut direction from the financial market regulators, application of existing laws remains of paramount importance when considering implementing AI technologies. Thus, in conjunction with Director Grewal's guidance, firms should be mindful of these laws and how they currently intersect with their business and use of AI, as well as whether current policies and procedures account for these concerns.

1. Monitoring Inputs and Outputs

While it is always important to be aware of AI inputs, certain risks arise when models are being trained with a firm's own data, including those related to material non-public information. In other words, if data fed into internal-facing models contain material non-public information, that could lead to trading on that information in violation of federal securities laws. It is therefore important to examine whether data sets include material non-public information or confidential information that contains restrictions against use or disclosures. And, to the extent necessary, controls should be implemented to prevent trading algorithms and broadcasted Generative AI from engaging in any activity that could be viewed as "artificially" affecting the price of securities.

Additionally, and as discussed *supra*, AI outputs can implicate fiduciary duties owed by firms to their customers. These actions can trigger Regulation Best Interest ("Reg BI") under the Securities Exchange Act of

1934,⁴⁹ which requires broker-dealers and associated persons to act in their client's best interest when making a recommendation to a retail customer of any securities transaction or investment strategy involving securities. Under this rule, broker-dealers are required to address conflicts of interest by establishing, maintaining, and enforcing policies and procedures designed to identify and disclose material facts about conflicts of interest, and to mitigate or eliminate the conflicts.⁵⁰ Although the SEC's proposed AI rules call for neutralizing conflicts of interest, the similarities between the rules proposal and Reg BI have resulted in critics claiming the SEC is overreaching when there are existing laws duplicative of the SEC's intent.

2. Safeguarding Customer Information

There are also several laws and guidance currently enacted concerning the safeguarding of customer information, including Regulation S-P ("Reg S-P") and Regulation S-ID ("Reg S-ID"). Reg S-ID in particular requires certain registered investment advisers, broker-dealers, and investment companies to develop and implement an identity theft prevention program. Firms should therefore take the steps necessary to ensure that any AI models with access to customer information are properly and appropriately surveilled for cyberthreats.

Similarly, NASD Notice to Member 05-49 also requires firms to maintain policies and procedures to protect customer information and records, and ensure that those policies and procedures adequately reflect changes in technology.⁵¹ FINRA accordingly recommends that firms provide initial and annual privacy notices to customers describing information sharing policies and informing customers of their rights, while also assessing various other federal and state laws applicable to customer data privacy (including Reg S-P and Reg S-ID).⁵² Moreover, it recommends regular updates to policies and procedures with respect to customer data privacy, to reflect any changes in what

⁴⁹ SEC, 17 CFR Part 240, Rel No. 34-86031, File No. S7-07-18, *Regulation Best Interest: The Broker-Dealer Standard of Conduct*, available at <https://www.govinfo.gov/content/pkg/FR-2019-07-12/pdf/2019-12164.pdf>.

⁵⁰ *Id.*

⁵¹ Fin. Ind. Reg. Auth., *Artificial Intelligence (AI) in the Securities Industry: Key Challenges and Regulatory Considerations*, available at <https://www.finra.org/rules-guidance/key-topics/fintech/report/artificial-intelligence-in-the-securities-industry/key-challenges>.

⁵² *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.*

data and information is being collected in association with AI applications and how that data is collected, used, and shared.⁵³

3. Policies and Procedures

To that end, broker-dealers and investment advisers must have a tailored compliance program that takes into account any gaps in compliance that the use of AI presents. For investment advisers, policies should account for Rule 206(4)-7 under the Advisers Act, which requires adoption and implementation of written policies and procedures designed to prevent violations of the Advisers Act.

VI. RISK MITIGATION AND REGULATORY CONSIDERATIONS

Given the above, a multi-faceted approach to AI deployment is crucial, including the testing and validation of AI models to prevent bias and inaccuracies, ensuring data privacy, and implementing robust cybersecurity measures to protect against malicious attacks. Regulatory compliance is also crucial, as is fostering a culture of transparency and explainability to build trust and accountability with regulators and customers. The bulleted list below provides a number of recommendations for guarding against AI risk.

- *Understanding AI is crucial* — not just for recognizing its benefits, but for understanding its limitations and risks. Firms should educate themselves on the intended uses of the AI they seek to deploy to ensure, at base, that the technology aligns with the firm’s specific needs and objectives. Consider bringing on employees with AI expertise, or incorporating such persons at the senior executive and board level. Also consider working with outside counsel and other outside vendors with AI expertise who can provide advice on AI-related issues.
- *Take steps to guard against bias.* AI systems are complex and often operate as “black box systems,” so there may be limited visibility into how decisions are made. This lack of transparency can pose certain risks, and it may therefore be difficult to determine whether biases are present in the data used to train the model. Pay attention to the sources of training data, inputs, and outputs of AI systems. The quality and relevance of the data input directly impacts AI’s performance and accuracy. Thus, transparency is paramount and should include a

comprehensive documentation process that tracks any changes made to the AI ecosystem, including its algorithms and data. Updated transparency reports to speak to these changes can also be disseminated more broadly. Foster accountability. Encourage questions and feedback.

- *Ensure a robust training mechanism.* Consistent and regular training is empowering for employees, and it promotes safe and responsible AI use. Employees who better understand AI’s capabilities and limitations can more easily spot risks associated with bias, data privacy, security, fraud, and other risks highlighted above. Training can also help employees stay updated on developments and advancements in AI to allow firms to better adapt to changes in the landscape. Importantly, training promotes accountability and responsibility through the promotion of healthy dialogue on potential risks that employees are empowered to then address. This is a collaborative effort, and it starts at the top to ensure examples are set.
- *Create a comprehensive framework* focused on AI governance, trustworthiness, fairness, reliability, robustness, efficacy, and data protection. Gartner refers to this as an AI TRiSM (which stands for Artificial Intelligence Trust, Risk, and Security Management).⁵⁴ Generally, this is a framework focused on building out reliable and secure AI systems. This factors in:
 - Explainability and monitoring AI for how the model processes and makes decisions. This is something FINRA has already focused on as a key consideration in risk management — specifically, FINRA Rule 3110 (Supervision), which requires firms to establish and maintain systems to supervise the activities of its associated persons in a way that is reasonably designed to achieve compliance with applicable securities laws and FINRA rules.⁵⁵ Firms have noted to FINRA that in supervising activities related to AI applications, they are seeking 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.⁵⁶

⁵³ *Id.*

⁵⁴ Gartner, *Tackling Trust, Risk and Security in AI Models*.

⁵⁵ Fn. 49, *supra*.

⁵⁶ *Id.*

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- Consistent efforts to refine, test, and update technology to maintain the quality and performance of AI models. Doing so upfront and on an ongoing basis will help identify potential concerns in a timely manner and limit potential issues.
 - Securing the AI application and its data to prevent unauthorized access and manipulation.
 - Adherence to a data governance practice, such as actions focused on privacy preservation, including informed consent and complying with applicable regulations.
 - *Engage in proactive compliance through acceptable use policies (“AUP”) or other guidelines.* Creating such policies allow firms to establish a concrete framework and plan that allows teams to understand what is permitted and what is not in deploying and using AI. At core, these policies communicate to staff what is required and what is prohibited but they are really the end-product of a long line of discussion on understanding AI, its use (including what sort of data will be input in those systems), and the regulatory landscape, conducting risk assessments to ensure the systems are secure, and examining already existing policies. An AUP should be a living document to ensure that it consistently aligns with new technological developments and regulatory requirements. It

should also be communicated to employees with training offered on at least an annual basis.

- *People are still important.* Human oversight and intervention are critical. By embedding human judgment into decision-making processes, firms can enhance reliability of AI systems through validation of AI outputs. Humans can detect errors, monitor for bias, and take corrective actions. This also promotes a culture of moving forward and evolving with the technology, including ensuring that it remains aligned with firm goals and ethical standards, while also complying with applicable rules and laws.

VII. CONCLUSION

As AI use increases, financial market participants, including investment advisers and broker-dealers, should remain mindful of the risks associated with the technology and how they intersect with existing laws and increased regulatory scrutiny. While the ramp-up to government regulation is slow, waiting for that shoe to drop is not advisable. Proactively establishing internal guidelines and comprehensive risk management strategies will better guard against government inquiry, especially where an emphasis on continuous education and training on AI developments is coupled with a commitment to transparency and accountability. Such engagement will not only mitigate reputational risk, but it should build trust and confidence among customers and stakeholders. ■