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TECHNOLOGY

Debevoise Attorneys Discuss AI Regulation With Head of FINRA's Office of Financial Innovation

By Vincent Pitaro, *Hedge Fund Law Report*

Financial services firms are embracing artificial intelligence (AI) and machine learning to make their back-office processes more efficient; assist with risk management and compliance-related functions; facilitate interactions with customers; and improve their investment processes. As the use of AI grows dramatically, so too do the associated business and compliance risks.

A recent Debevoise & Plimpton seminar explored the current state of AI regulation in the securities industry, focusing on FINRA's recent work in the area. Debevoise partner Avi Gesser moderated the discussion, which featured associate Anna R. Gressel and Haimera Workie, senior director at FINRA and head of its Office of Financial Innovation. This article outlines the key takeaways from the presentation, including ways to manage AI risks.

See "AI and Machine Learning: IOSCO Seeks Input on Proposed Guidance" (Jul. 30, 2020); and "The Current State and Future of AI Regulation" (May 14, 2020).

FINRA's Office of Financial Innovation

The purpose of FINRA's Office of Financial Innovation is to foster innovation that supports investor protection and market integrity, Workie said, noting that the views he expressed are his own, not necessarily those of FINRA. New technology that affects business processes or models often gives rise to new types of risks. Both regulators and industry must recognize the potential benefits and the risks of AI.

According to Workie, the Office of Financial Innovation approaches new technology in five primary ways:

1. It conducts outreach to FINRA members, investors, other regulators and market participants using roundtables, conferences, FinTech "office hours" and a FinTech industry committee.
2. It trains FINRA staff and serves as a source of expertise to leverage knowledge available from throughout FINRA.

3. It provides internal coordination and serves as a focal point for FinTech-related issues. For example, it has created working groups and policy groups on digital assets.
4. It coordinates with the SEC, as well as other domestic and foreign regulators, including the CFTC, the European Securities and Markets Authority, the U.K. Financial Conduct Authority and the International Organization of Securities Commissions.
5. It works with FINRA's Investor Education Foundation to develop relevant alerts and creates industry-facing publications.

For discussion of the CFTC and SEC approaches to technological innovation, see "Former CFTC Chairman J. Christopher Giancarlo Discusses Technology, LabCFTC, Project KISS and the CFTC's Enforcement Manual (Part Two of Two)" (Feb. 6, 2020); and our two-part interview with former OCIE director Carlo di Florio: "His Time at the SEC and FINRA" (Nov. 14, 2019); and "SEC's National Exam Program, Technology and CCOs" (Nov. 21, 2019).

FINRA AI Report

Recently, the Office of Financial Innovation took a deep dive into AI in the securities industry to learn about AI issues for internal training purposes and to share with market participants, Workie said. In June, it issued a report on its findings (AI Report).

The AI Report examines the risks and benefits of AI and explains how to reduce those risks, Gesser noted. FINRA found that there are a number of firms with "production-level" AI systems in place, Workie continued. Securities firms are using AI systems for communication with customers, investment processes or operations.

See "FINRA RegTech Conference Reviews AI, RegTech Adoption and Compliance Challenges (Part Two of Two)" (May 30, 2019); and "FINRA RegTech Conference Examines AI and Big Data; Blockchain; and Regulators' Views (Part One of Two)" (Mar. 21, 2019).

Communications with Customers

Firms are using algorithms to target existing investors and prospective clients, Workie said. For example, to assess investor interest, they may analyze which sections of a firm's website people are visiting or look at customers' existing portfolio information and wealth levels. They are also using chat bots and virtual assistants to gather information and improve the customer experience.

Investment Processes

Firms are also using AI for portfolio management, Workie continued. Some use it to provide information about portfolios to registered representatives, who use that information to generate potential ideas for investors. In addition, some use machine learning to enhance trading algorithms.

See "An Introduction to Quantitative Investing: Dispelling Myths and Misconceptions (Part One of Three)" (Aug. 9, 2018); and "The Death of Alpha: A True Challenge or a Poor Manager's Excuse? DMS Summit Discusses Alpha Generation, '2 and 20' Fees, AI and Impact Investing" (Apr. 12, 2018).

Operations

Finally, firms are using AI for compliance, risk management and administration, Workie said. For example, some use AI to enhance their anti-money laundering and know your customer

(AML-KYC) processes to reduce false positives and detect issues.

See "FINRA RegTech Conference Examines Digital Identification, Suspicious Activity Reporting and Machine Learning (Part One of Two)" (May 16, 2019).

Other Uses

In addition to those core areas, many Debevoise clients are using AI in back-office processes, including resume review, automated hiring and other human resources functions, Gressel added. AI is also being used for cybersecurity and applications that require pattern and anomaly recognition, including fraud detection, where AI based on unsupervised learning excels.

See "AI for Fund Managers: How to Use It to Streamline Operations (Part One of Three)" (Sep. 5, 2019).

The comment period for the AI Report ends on August 31, 2020, Gesser noted. Firms are encouraged to comment on any or all aspects of the AI Report, Workie said. FINRA would like to hear about any significant areas that it may have missed, such as other ways in which firms are using AI or risks that the AI Report did not mention. It is also interested in perspectives on the role that FINRA should play in addressing the challenges presented by AI. Firms are concerned about crafting regulations and guidance that recognize risk but do not stifle innovation, Gesser added. Categorizing AI applications by risk could be one way to address that concern.

For more on how AI is being used in the financial services industry, see "AIMA Report Outlines Adoption, Challenges and Prospects for Use of Alternative Data by Hedge Fund Managers" (Jun. 4, 2020); and "EY 2019 Survey Explores Growing Importance of Talent Management, Diversity and Inclusion; Use of Technology, Big Data and AI; and Cybersecurity (Part Two of Two)" (Dec. 19, 2019).

Managing AI Risks

Consider the AI System and Its Intended Use

AI risks vary by use case, Gesser said. For example, risk of racial, gender and sexual orientation bias tends to be higher in human resources and retail banking matters. There are different risks in trading, AML-KYC and cybersecurity. In addition, AI that makes its own decisions may pose greater risk than AI that merely generates recommendations on which a human then acts. As a result, it is challenging to create an overarching framework.

A firm should consider what type of AI it is using because different AI applications carry different risks, Workie noted. It should also consider where it is applying the AI. An AI application for trading presents different risks from AI used for administrative tasks. The AI Report offers a starting point for thinking about those issues.

AI models differ widely, and not all deserve the same degree of scrutiny, Gressel noted. An inventory and risk assessment process for AI systems should include consideration of:

- what AI models a firm is using;
- which regulatory regime applies;
- the consequences in the event there is a crash, bias develops or something else goes wrong; and

- the safeguards in place to mitigate those risks, which should be appropriate to the risk that needs to be mitigated.

See "FINRA RegTech Conference Reviews Current Uses of RegTech and Considerations Before Deployment (Part Two of Two)" (Mar. 28, 2019).

Use a Broad-Based Team

It is also important to determine where within an organization to address the relevant risks, Gesser noted. AI must be deployed in accordance with regulatory requirements and operational risk. Firms have already done that for cybersecurity, AML-KYC and other areas. It is important to use a team that brings in the right combination of stakeholders and perspectives, Workie added.

For example, the AI Report makes clear that firms are already subject to many regulatory requirements that are implicated by AI, Gesser said. Therefore, people familiar with those regulatory requirements should be involved in AI development to ensure that the system conforms to relevant requirements.

Do Not Wait for AI-Specific Regulation

Some firms are taking an enterprise-wide risk mitigation approach to AI, just as they do for cybersecurity, Gesser continued. Others are taking a wait-and-see approach in anticipation of definitive regulation.

Although there are no AI-specific FINRA regulations, there are many regulatory requirements that apply to technological tools and processes in general, Workie cautioned. Regulations generally affect functions and processes – not technology. Therefore, firms that use AI should consider how it may affect existing processes and its implications under existing regulations that govern those processes. Certain processes may look different under AI, Gressel added. For example, documentation may be difficult with respect to opaque AI processes, which could have consequences for books and records compliance.

Some firms say, "Our AI does not do any of that stuff," because it only serves internal functions and does not affect individual clients or because the system is not self-learning, Gesser remarked. For example, some may believe that using AI to recommend reading materials for representatives does not raise regulatory concerns, but AI used to influence what representatives are reading could, in fact, affect the recommendations that they make.

Employ Testing and Guardrails

"FINRA is focused on the safety and soundness of AI models," Gressel said. That is a growing trend in regulation. Regulators are concerned about what may happen if a model fails or acts unexpectedly and how firms are mitigating those risks. To that end, FINRA has recommended stress testing; using performance benchmarks with ongoing monitoring and alerts; building in technological guardrails or circuit breakers; and having a fallback plan if AI fails.

FINRA sees failure of AI systems as a potential business continuity issue. That is another area where AI risks are similar to cybersecurity risks, Gesser said. An AI failure could disrupt business operations, just as a cyber attack could.

Testing and guardrails are important, Workie concurred. Firms should test AI systems on an ongoing basis, considering how the data set may be changing. They should incorporate guardrails during system planning. For example, a firm might include a mechanism to keep the firm from taking a trading risk that it did not intend to take.

See "Managing the Machine: How Hedge Fund Managers Can Monitor and Review Their Automated Trading Strategies (Part Two of Two)" (Jan 14, 2016).

Understand and Be Able to Explain AI Systems

A firm must understand what AI systems it is using and the implications of using them. For example, a firm should want to know how its AI systems introduce risks into its business operations or otherwise affect its risk profile, Workie observed. It should have a good grasp of the potential repercussions of an AI system from regulatory, business and reputational risk perspectives.

In addition, a firm should be able to explain, in layman's terms, the key assumptions underlying its AI systems, the risks it identified and the steps it took to mitigate those risks, Workie explained. Without documentation, it will be very difficult to do that and to articulate a basic understanding of how the AI system works to an examiner looking at the system. He suggested that firms ask themselves what they would need to be able to show the processes that they took and the factors that they considered when reaching certain conclusions.

Another reason to have plain-English information on AI systems available is that many boards are not technologically sophisticated, Gesser noted. As a result, executives at some firms are concerned about giving detailed technical presentations to boards. FINRA does not prescribe board involvement, Workie said. Nevertheless, a board should want at least basic information about AI parameters, governance and testing, which is the same type of information that FINRA examiners may request.

See "Managing the Machine: How Hedge Fund Managers Can Examine and Document Their Automated Trading Strategies (Part One of Two)" (Jan. 7, 2016).

Screen and Supervise AI Vendors

Many firms are using vendors to develop or run their AI systems, Gesser noted. As with cybersecurity, it may not be sufficient simply to obtain contractual representations from a vendor as to compliance matters. FINRA's outsourcing notice to members applies to outsourced AI, Workie said. The member firm is ultimately liable for the conduct of its vendors and compliance with FINRA rules, even when it delegates duties. At a minimum, a firm should ask an AI vendor how its system operates and integrates with the firm's systems. It could also use a third-party auditor or other controls.

As with cybersecurity vendors, a firm should ask AI vendors for notice of issues that arise, cooperation in resolving issues and agreement to submit to audits, Gesser advised. Depending on a firm's relationship with its vendor, the firm could consider imposing performance benchmarks and a duty to validate model results, Gressel added, noting that risks may arise when a model that works well on training data is integrated into live operations.

See "AI for Fund Managers: Government Guidance, Service-Provider Negotiations and Risks of Bias (Part Two of Three)" (Sep. 12, 2019).

Firms are also concerned about privacy and data issues, Gesser said, and are asking vendors to represent that they have the right to use the data that is fed into the model. The AI Report addresses data source verification and data integration, Workie noted.

See "AI for Fund Managers: Automating the Legal Department and Maintaining Privacy (Part Three of Three)" (Sep. 19, 2019).

For more on vendor management, see "How Fund Managers Can Develop an Effective Third-Party Management Program" (Sep. 21, 2017); and "Key Considerations for Fund Managers When Selecting and Negotiating With a Cloud Service Provider" (Sep. 21, 2017).

Other Trends in AI Regulation

Earlier this year, the European Commission issued a white paper on potential regulation of AI, Gressel noted. It contemplates a risk-based approach that would grade AI systems based on their application, industry and riskiness. The paper identifies healthcare and recruiting as high-risk areas. The comment period on that paper is now closed. A report could be issued later this year or early next year, Gressel said.

There has also been a general uptick in regulatory guidance on AI, Gressel added. So far, enforcement has focused on consumer-oriented applications. Private litigation often follows enforcement trends, she cautioned.