

April 11, 2025

Mr. Rodrigo Buenaventura  
Secretary General  
International Organization of Securities Commissions  
Calle Oquendo 12  
28006 Madrid  
Spain



*By email to: [AIWGConsultation@iosco.org](mailto:AIWGConsultation@iosco.org)*

Dear Mr. Buenaventura,

### **Artificial Intelligence in Capital Markets: Use Cases, Risks, and Challenges**

The Institute of International Finance (IIF) welcomes the opportunity to comment on the International Organization of Securities Commissions' (IOSCO's) [consultative report](#) on the above topic (**Report**).

As you know, the [IIF](#) represents approximately 400 globally active financial institutions (**FI**s) from over 60 geographies, drawn from the banking, insurance, securities, asset management, payments and other sectors, including central and development banks. Many of our members are particularly interested in the cross-border impacts of emerging technologies, including artificial intelligence (**AI**) and machine learning (**ML**), and related regulatory frameworks.

The IIF and its members, indeed, have long contributed to the deepening discussion around AI and ML in finance, for example through our regular IIF–EY surveys of AI in finance,<sup>1</sup> through substantive submissions to global and regional regulators, and through global events and roundtables, both IIF-hosted and convened at the behest of standard-setters or regulators.

### **GENERAL COMMENTS**

Overall, we commend IOSCO for its research-driven approach to understanding AI applications in capital markets. The Report is a thoughtful effort to gather information and describe current AI use cases, potential risks, and emerging challenges, which as we understand it will be placed alongside responses to the Report and the jurisdictional survey in informing next steps. We welcome that IOSCO has taken a measured, investigative approach in this first phase, rather than proceeding directly to regulatory recommendations. We believe this is particularly appropriate given the speed of developments and the fluidity of many regulatory regimes, both sectoral and economy-wide.

That said, the Report's overall narrative is focused on risks and challenges. We suggest a more balanced perspective be taken so that the report also acknowledges the transformative benefits of AI and the measures already in place to identify and manage relevant risks and counteract potential downsides. There are risks associated with not incorporating AI as markets move forward, both because these benefits exist and because bad actors will use AI regardless of actions taken by the rest of the market. Financial institutions have risk-based processes in

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<sup>1</sup> See the 2024 [Public Survey Report](#) as the latest in this series. The series has been published roughly annually since 2018.

place for integrating emerging technologies into their operations, including AI. It's important to distinguish between the existence of risk and unchecked, unmitigated risk.

In the rest of the response, we put forward some high-level considerations we think could usefully inform IOSCO's further work. We then address the various sections of the report in turn, identifying key messages that are aligned with our own survey work. Our response covers several key areas where we believe IOSCO's continued focus would be most valuable, while also highlighting considerations that should inform the direction of any future work.

## KEY HIGH-LEVEL CONSIDERATIONS

As we have done in recent submissions to other authorities<sup>2</sup> on this topic, we would stress that:

- **Policymakers should clearly recognize the benefits of AI and be careful to not unduly stifle innovation:** While the Report is not aimed at surveying the benefits of AI, policymakers should bear in mind that advanced AI systems can meaningfully enhance investor protection and market integrity through improved market surveillance, fraud detection, risk modeling capabilities, algorithmic trading efficiency, and enhanced investment research. These advancements create greater market efficiencies that benefit investors through improved price discovery, more competitive services, and stronger operational resilience in regulated financial institutions. Policymakers should therefore calibrate their approach to preserve these significant public benefits without imposing overly restrictive frameworks that would retard adoption of technologies that enhance market functioning.
- **AI in capital markets is already regulated:** AI applications in capital markets are already subject to regulation through sectoral and cross-sectoral frameworks including market conduct rules, market manipulation prohibitions, investor protection regulations, data privacy requirements. In addition, generally prudential requirements concerning data governance, cyber risk, third-party risk, and operational risk apply to general-purpose technologies (such as AI) deployed by investment firms to ensure that material risks are well managed.
- **AI in capital markets is not entirely new:** While generative AI at scale is a relatively emerging technology, capital markets supervisors should avoid adding to hyperbole around AI. AI and ML systems have been deployed in production for some time, with traditional statistical models in use for 20+ years and already subject to existing regulatory and risk management frameworks (see below). Supervisory research should be focused on better understanding newer applications (such as generative AI) and where the use of AI materially impacts investors or market integrity.
- **Existing risk frameworks provide a strong foundation:** Capital markets firms operate under national/regional regulatory frameworks consistent with IOSCO principles. These frameworks require sophisticated risk management and governance controls, which have largely served the industry well. As FIs incorporate AI into these existing structures and may in some cases augment them for particular technologies such as generative AI<sup>3</sup>, they start from a strong risk management foundation

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<sup>2</sup> See IIF (August 2024), [IIF Response to U.S. Treasury RFI on AI in Financial Services](#); IIF (September 2024), [IIF Response to European Commission Consultation on AI in Financial Services](#); IIF (December 2024), [IIF Response to European Commission Consultation under the AI Act](#), IIF (February 2025), [IIF Response to IAIS on AI in Insurance](#).

<sup>3</sup> See IIF-EY [Public Survey Report](#) (December 2024). The IIF would be willing to provide IOSCO a more in-depth, official sector only report of the survey results under separate cover.

commensurate with the high trust placed in capital markets institutions. As a matter of practice, FIs keep such arrangements under review, proactively making adjustments as needed.

- **Policymakers should consider the potential dangers of prescriptive requirements:** Prescriptive requirements around AI in capital markets could create significant barriers to entry for new market participants, reduce investment and/or delay adoption of AI technologies, thereby delaying the benefits of AI to society, while an overbroad definition of AI systems presents additional challenges.

## COMMENTS ON THE REPORT

### Executive Summary

We agree with many of the Report's observations regarding the current AI landscape, and we would particularly echo the messages that:

- FIs are increasingly investing in AI technologies, building upon long-standing uses of more traditional AI and ML systems in capital markets.
- Many firms are incorporating AI into existing risk management and governance frameworks while others are establishing bespoke frameworks. Data quality, privacy and confidentiality, model explainability, and third-party dependencies remain important considerations.
- Recent advancements, chiefly generative AI, are primarily being deployed for internal, lower-risk implementations, including AML/CFT, client segmentation, and internal productivity.

The pace of AI development has accelerated in recent years, with generative AI and large language models representing a significant step forward in capability. However, we observe that many FIs are taking a measured approach to deploying these newer technologies, focusing first on low-risk, internal use cases while gaining experience and confidence.<sup>4</sup>

### Introduction – Terminology

We would pick up the Report's distinction, made in a few passages, between traditional deterministic models and newer probabilistic AI approaches. Traditional statistical models have been deployed in financial markets for decades and are already well-covered by existing regulations and frameworks.

We would accordingly recommend narrowing the discussion on AI to focus on generative AI and deep neural networks, characterized by:

- Greater capability for autonomous learning and adaptation
- Complex inferential capabilities beyond traditional statistical methods.

This would exclude well-established methods that have been subject to existing risk management frameworks for considerable time, such as:

- Linear/logistic regression

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<sup>4</sup> For further details of our observations across the financial industry, see IIF–EY [Public Survey Report](#) (December 2024).

- Decision trees and random forests
- Rule-based expert systems
- Traditional statistical and predictive modeling.

While a general definition and efforts to delineate different types of AI could be useful, any rigid definition should not be used as a benchmark for policymaking. A risk-based, adaptable framework is more appropriate given the rapid pace of technological advancements.<sup>5</sup>

### **AI Use Cases in Capital Markets**

We would particularly echo the following findings in the Report regarding AI use cases:

- Financial institutions are increasingly adopting AI technologies to enhance internal operations, automate tasks, improve communications, and strengthen risk management functions, particularly in AML/CFT compliance and fraud detection.
- While AI integration in capital markets is not new, recent advancements including GenAI are being explored, piloted, and implemented with priority given to internal, lower-risk applications.
- AI and machine learning help firms process large amounts of unstructured data, analyze network traffic, identify patterns/anomalies, monitor transactions in real-time, and detect illicit activities.
- Some organizations are incorporating AI into existing risk management frameworks while others are developing specialized AI governance structures to manage these technologies.
- AI is enabling more personalized approaches to client services, including customer segmentation and customized advice tailored to the demographics and asset conditions of retail investors.

Our members highlight the importance of separating investment decision functions (which directly influence trading or portfolio construction) from investment support functions (like research and data analysis), as these have different risk profiles, the latter being less material.

### **Risks, Issues, and Challenges**

We acknowledge the risks, issues, and challenges identified in the Report, and would support the following finding in particular:

- AI systems may strengthen the capacity of firms and regulators to identify and mitigate risks, particularly in the area of AML, CFT, anti-fraud, and compliance measures.

We would add that, despite the rapid evolution of AI potentially heightening risks around misuse, including cyber-related risks, AI also enables the development of countermeasures that can identify and neutralize misuse, thereby helping legitimate actors maintain trust while keeping pace with evolving threats.

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<sup>5</sup> While classifying different technological constructs and developing tailored policies and processes could be important, such classifications may not be appropriate for rulemaking.

The report outlines some risks, such as interconnectedness, herding, and collusive or scheme behavior, which remain largely theoretical due to limited empirical evidence.<sup>6</sup> Until sufficient data is available to understand and quantify these questions, authorities should exercise caution in how they communicate and address these potential risks. Any policy recommendation or action should prioritize addressing real and probable risks, and only where clear gaps in existing legal and regulatory frameworks are identified. It is crucial for the industry to be engaged in identifying these gaps, if any, and to have the opportunity to provide meaningful input.

Regarding the risks of AI agents that might covertly pursue misaligned goals, we caution against overly rigid statements like “AI systems should be used as a tool to augment, and not replace, human decision making and judgment” (p. 49). While human judgment is essential, imposing rigid limits may hinder the development of AI systems capable of acting autonomously in alignment with their intended purposes. It is also possible that the “human decision making and judgment” referred to could take place at a different stage or in a different form than authorities have historically seen, and we caution supervisors to contemplate this fully before assuming that it has been “replaced”. By the same token, we would also encourage supervisors, where appropriate, to back the development of technical solutions that incorporate a ‘human in the loop’ for AI agents.

Some members have also expressed concerns about AI usage potentially eroding subject matter expertise over time. Firms and supervisors will need to ensure that humans in or over the loop and effectively supervising AI systems have a good understanding of the fundamentals of what the AI system is intended to achieve, and the challenge will be to maintain those skills when the call to exercise them constantly is quite reduced. We would also agree with the finding (p. 51 in the following section) that preventing over-reliance on AI systems that would lead to human incapacity is important.

### **Market Participant Risk Management and Governance Steps Taken**

As mentioned, we coincide with the finding that FIs have opted either to establish a separate AI risk management and governance framework, including bespoke policies, procedures, and controls, or to incorporate AI risk management and governance into existing frameworks.

In our view, it is entirely appropriate for FIs to determine the most effective and suitable risk management and governance framework based on the risks of their AI systems and the laws and regulations they are subject to. This is because, to echo another finding in the Report, that the risks and benefits of AI systems depend critically on their nature and characteristics as well as the use case for which they are deployed.

An important consideration in these risk management frameworks is the need to clearly identify and distinguish between AI tools that can pose significant risks and potentially be misused, versus tools where experimentation is appropriate and carries lower risk. This

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<sup>6</sup>IOSCO should refrain from making policy recommendations in areas where they lack sufficient data and room for debate (e.g., herding on p. 45, where IOSCO acknowledges the scenario is “one that is subject to some debate”, collusive or scheming behaviors on p. 46, where IOSCO mentions such “risk appears theoretical at present but warrants further study”). Also, on p. 41 of the report, it states “IOSCO was unable to reach a clear understanding of the range of AI model types that are being used across financial services, including the role of proprietary versus open models,” which implies further engagement with the industry and research may be needed.

differentiated risk-based approach allows for innovation while maintaining appropriate controls where needed.

We would also echo certain other findings, particularly that the outright ban of certain AI tools may incentivize employees to use personal devices to conduct work, leading to a different set of risks. This underscores the importance of enabling FIs to deploy advanced tools to ensure that employees can be productive and engaged.

As for the finding that financial firms have reported difficulties in obtaining information from a third party about its AI technology—models, and training data in particular—to assess and manage the risks of using the AI technology, some of our members indeed report facing significant challenges with third-party AI vendors who may be hesitant to share critical information about their AI models, for commercial, litigation risk, or cybersecurity reasons, among others. This can create difficulties for FIs attempting to validate these systems. There may be scope for financial regulators to clarify regulatory expectations in such a way as to improve the position of FIs relative to model providers and support their ability to successfully leverage contractual frameworks to require third-party disclosure of vital information.

Furthermore, members have pointed out that there are important distinctions between model risk and third-party risk when financial institutions use AI systems. While model risk focuses on the interpretability and inner workings of AI models themselves, requiring documentation on intended uses and known risks, third-party risk relates to the institution's ability to conduct appropriate due diligence on vendors' control environments and regulatory compliance. See further below for suggestions on addressing this topic.

## **Regulatory Responses**

We are grateful for the work the Working Group devoted to this section of the Report, which is a useful compendium of regulatory responses to-date. We found the trichotomy between reliance on existing frameworks, specific legal requirements/guidance, and bespoke AI-specific frameworks useful analytically. The survey of regulatory engagement, collaboration, and supervisory/enforcement efforts, fact-finding efforts, education efforts, etc. is also very comprehensive, insofar as it covers efforts by IOSCO members.

We note there are sometimes quite sharp differences in findings (for example, as to the prevalence of various use cases) between IOSCO members and SRO respondents. IOSCO may wish to understand the implications of these differences in future work.

We would also note, of course, that financial regulators' responses to AI developments take place within a broader context of work on AI safety, privacy, data sharing and other issues, some of which will presumably be discussed within the newly-established FSB forum for cross-border data sharing issues. We would expect that IOSCO and its members pay close attention to these developments, with the aim both of avoiding duplication, and of being well-informed as to what FIs will be expected to implement or contribute to going forward.

## **FUTURE AREAS OF FOCUS**

As IOSCO considers the next phase of its AI work, we would encourage:

1. **Focusing on Emerging Technologies:** We recommend IOSCO focus on newer AI applications (such as generative AI) where the bigger risks may lie, rather than on traditional AI which the industry has used for years without major issues.

2. **Focusing on Real Rather Than Hypothetical Risks:** IOSCO should be cautious about issuing policy recommendations on events that have not occurred and are unlikely to occur in the near future, especially for GenAI. The industry is approaching GenAI very conservatively and firms generally do not rely on GenAI to handle mission critical tasks today. Any policy recommendation should focus on real and likely risks where there is an identified gap in existing legal and regulatory frameworks.
3. **Prioritizing Agentic AI Research:** The financial industry is particularly interested in Agentic AI—systems that can replace and reengineer entire processes rather than just tasks, and may require digital authority to be exercised and identified. As observed in our industry forums, 2024 was the year we moved “from wow to how” with generative AI, while 2025 is shaping up to be a year when agentic AI and cognitive systems come into real focus, for firms and policymakers. We would emphasize that FIs are approaching agentic AI very carefully, given the comprehensive governance, risk management and liability frameworks they operate within.
4. **Addressing Embedded AI Challenges:** We note the Report does not specifically address “embedded AI”—the trend of third parties unilaterally adding AI and generative AI functionalities to existing software (e.g., AI summarization in video conferencing tools). FIs are increasingly faced with how to apply internal model risk management practices to these external AI providers who embed AI capabilities in their products, particularly in view of the relatively pervasive and widely deployed nature of such tools. This presents a governance challenge that merits further exploration.
5. **Maintaining a Learning Posture:** We recommend continuing the information-gathering approach before moving toward formal recommendations or frameworks. AI technology continues to evolve rapidly, and premature standardization could inadvertently constrain innovation or quickly become outdated. IOSCO should be especially hesitant to make policy recommendations in areas where there is insufficient data. As just two examples, the issues of herding and collusive or scheming behaviours are areas where further study is called for.
6. **Addressing Concentration Risk:** The Report correctly identifies concerns about market participants becoming excessively dependent on common AI models, creating potential systemic vulnerabilities. Rather than solely focusing on restrictions, regulators could promote market players’ access to new data sources and their ability to develop new technologies, since this will ultimately reduce the dependency on common models and mitigate systemic vulnerabilities. Regulators should also learn from industry leaders that are already pursuing solutions to mitigate or manage this risk, and consider how those solutions might be scalable across the industry.
7. **Model Risk vs Third-Party Risk:** Addressing transparency challenges in each context requires different approaches—one centered on technical model validation and the other on vendor governance frameworks and contractual obligations. Without clarity on these differences, institutions may struggle to implement appropriate risk management strategies for AI deployment. FIs continue to explore solutions to increase transparency in key areas with their service providers.

## Regulatory Recommendations Would be Premature

We do not perceive that IOSCO is rushing to establish prescriptive regulatory recommendations, and indeed we would caution against this. In our view, given the pace of developments, both technical and regulatory, combined with the mass of existing regulation and risk management frameworks, the correct stance is one of close monitoring, further study, and continued engagement with the industry.

Developing regulatory approaches to AI at this stage may lead to:

1. **Over-Prescriptive Requirements:** The rapid evolution of AI technology means that highly prescriptive requirements may quickly become outdated or inadvertently restrict beneficial innovation. We recommend IOSCO continue to focus on research and eventually on principles-based guidance that can adapt to technological changes. Members have cautioned against detailed regulation in this evolving area, noting it may be inefficient or even counter-productive.
2. **Duplicative Regulation:** Many aspects of AI use in financial markets are already covered by existing regulations, including those related to data protection, operational resilience, third-party risk management, and market conduct, as we observed above. We encourage IOSCO to leverage these existing frameworks rather than creating parallel requirements. Existing regulations have generally performed well in addressing AI applications.
3. **Regulatory Fragmentation:** Different regulatory approaches across jurisdictions could create significant compliance challenges for global FIs. We encourage IOSCO to continue its coordination role with other international bodies and national regulators. This fragmentation is a big concern for global FIs.

## Other Aspects

**Learning by Doing:** We also note the challenge for regulators to keep pace with AI developments. IOSCO could play a valuable role in developing resources and sharing best practices to help securities regulators build the necessary technical expertise and supervisory capabilities. Regulators should become more involved in the development of tools designed to identify AI misuse, which would help safeguard the integrity of AI applications and support a more resilient financial market ecosystem. There is also ample scope for regulators to “learn by doing”, by building or commissioning AI-enabled systems for market supervision, domestic or cross-border data sharing, or other tasks.

**Importance of Continuing Dialogue:** As IOSCO develops its future work program, we encourage continued dialogue with both financial industry participants and technology providers to ensure a comprehensive understanding of both the risks and benefits of AI technologies. We would like to emphasize the IIF’s and FIs’ willingness to support regulators in closing data gaps about AI applications. Our members stand ready to collaborate with regulators in closing data gaps about AI applications by sharing insights about use cases and implementation approaches, helping to promote a better understanding of AI applications across the financial sector. As one example, we have offered regulators access to the restricted version of our IIF–EY survey on AI in financial services, and would be happy to provide IOSCO a copy on request of the most current survey results as well as those of prior years’ surveys.



Enhanced dialogue between IT stakeholders—namely those representing dominant model platforms and AI agent providers—and financial stakeholders, including regulatory authorities and market participants, appears to be essential for addressing emerging challenges such as the concentration of models or the complete automation of decision-making without excessive regulation that might deprive capital market participants of AI benefits.

## **CONCLUSION**

We appreciate IOSCO’s thoughtful approach to examining AI in capital markets and its commitment to engaging with stakeholders.

The IIF and its members remain committed to the responsible development and deployment of AI in financial services and would welcome the opportunity to participate in further discussions on this important topic.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Jessica Renier".

Jessica Renier  
Managing Director, Digital Finance