Forum: United Nations General Assembly 2nd Committee

Issue: Ensuring ethical artificial intelligence usage in financial services to prevent market manipulation

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Introduction

The issue of ethical artificial intelligence usage in financial services is becoming increasingly important in our society as we continue to develop technologically. Technological capabilities concerning artificial intelligence (AI) and our reliance on it will only increase in the coming years. It must be ensured that ethical practices are considered when using AI, especially in sensitive fields such as financial services, where there is a great risk of the unethical misuse of AI that can be used to manipulate the market. Ethical AI practices are not only a moral imperative but also essential for maintaining trust, stability, and fairness in financial markets. This calls for proactive measures, including robust regulatory frameworks, transparent AI systems, and collaboration across industries to mitigate potential risks while responsibly harnessing the benefits of AI.

In the financial sector AI “particularly Generative AI (GenAI), has become the linchpin of transformative change, redefining the operational and strategic horizons of the banking sector” (Chlouverakis) It is evident that AI has the capacity to transform the banking center and foster innovation and increase efficiency. Despite this, the challenges about the ethical use of AI remain, which is a difficult issue to address. In considering this, we must look at three general areas that play a role in ensuring ethical artificial usage which can be simply classified as Ethical AI Design and Implementation, Regulatory Frameworks and Governance, and Monitoring/Collaboration.

To address the issue as a whole, we must address not only the AI model itself but also the frameworks surrounding its usage which play a crucial role in having clear guidelines about the considerations that should be made with the use of AI, as well as monitoring frameworks and interstate collaboration. Such a framework which may be present as part of a global regime, consisting of rules, norms, principles, and procedures, would require discrete monitoring of individual states, as well as transnational banking groups to ensure that all actors on the global political stage follow the rules outlined surrounding AI usage.

The aim of this debate is the creation of ethical guidelines surrounding AI usage and the creation of a framework that addresses the enforcement and monitoring of whether these principles and norms are being followed by all financial actors on the global political stage.

Definition of Key Terms

Ethical AI:

Ethical AI refers to artificial intelligence that emphasizes the fairness, transparency, accountability, and respect for human values of an artificial intelligence model (holisticAI). AI poses novel risks that we may not be prepared for, therefore ensuring that algorithms are written robustly with a distinct consciousness surrounding moral awareness is crucial to mitigate and prevent the harm that could be caused by AI. Deploying AI to address humanitarian concerns and providing a plan to shut it off in case anything goes wrong is therefore essential when designing an AI model.

Market Manipulation:

"Market manipulation refers to artificial inflation or deflation of the price of a security" (Team C). This can often mean manipulating stock prices through targeted selling and buying to manipulate their price for personal gain. Considering that market manipulation can be difficult to detect, it is important to establish more safeguards that may help prevent market manipulation. Market manipulation is illegal, and is often met with serious civil liability and punishment. Manipulating the prices of smaller stocks such as penny stocks is far easier than with larger companies, therefore these are the ones that are often exploited the most.

Transparency:

The right and the means to examine the process of decision-making is known as transparency. In politics, transparency is used as a means of holding public officials accountable and fighting corruption (Matozzi). Transparency is important for governments and other actors such as corporations deploying artificial intelligence models. It is important to have transparency between states, corporations, and other actors to ensure that AI models are ethical, follow internationally accepted norms, and create accountability for AI-related crises, if this were to occur.

Regulatory Compliance:

"Regulatory compliance is the process of complying with applicable laws, regulations, policies and procedures, standards, and the other rules issued by governments and regulatory bodies" (MetricStream). In the United States, these include bodies such as "FINRA, SEC, FDA, NERC, Financial Conduct Authority (FCA), etc." Regulatory compliance is crucial on an

international level since it means that international standards, principles, and decision-making procedures are upheld by everyone on the global stage. Although there is no true form of global governance, establishing means to leverage other states, and various other actors like corporations, through the use of soft power is important in upholding international standards.

Bias Mitigation:

"Bias mitigation refers to the proactive process of identifying, addressing, and reducing biases that may exist within an organization or society. These biases can manifest in various forms, such as unconscious biases based on race, gender, age, or socio-economic status" (OxcognitaLLC). In the field of AI, it is crucial to address biases that an AI may learn in the machine learning process. When an AI is taught through a model, there may be certain unconscious biases within the data set, which an AI could pick up on and perpetuate or output during its operation. This is important to address, therefore the robustness and bias mitigation of data sets used to teach AI is crucial.

AI Governance:

"AI Governance is the set of processes, policies, and tools that bring together diverse stakeholders across data science, engineering, compliance, legal, and business teams to ensure that AI systems are built, deployed, used, and managed to maximize benefits and prevent harm" (Credo AI). For instance, before deploying an AI algorithm for high-frequency trading, the board might require a review of how the algorithm identifies trading opportunities to ensure it does not exploit market vulnerabilities or manipulate prices in ways that could harm smaller investors.

Background Information

In the last decade, AI use and reliance have seen massive growth, especially after the COVID-19 Pandemic. Through its applications in parts of our everyday life, to governance, finance, military applications, commerce, media, and public services, it has changed our lives for the better. Despite this, many dangers come with the use of AI, which has been commonly depicted throughout movies in the past, and despite the inaccuracies of these movies, they have one theme in common, which is that it is important to be aware of the novel risks posed by Artificial Intelligence. This is especially true for the financial sector, where AI can pose a great danger particularly concerning the manipulation of markets in an unethical manner.

Ensuring ethical AI usage in financial services is a critical topic as AI systems increasingly play key roles in market analysis, trading algorithms, risk management, and fraud detection. Some examples of technology used for fraud detection include, "'Natural language processing' (NLP)

models, which enrich and categorize data into granular groups, Captcha / reCaptcha, an automated test to separate humans from computers, and Graph neural networks (GNNs) which are a data processing system that maps out the relationship between different pieces of information" for a better overall understanding (Trustpair). The use of these systems has already been implemented in banking and proved to significantly increase efficiency and scalability. On the other hand, systems for risk management and trading algorithms have not seen the same safety and security as these fraud detection algorithms, and have posed ethical risks due to their potential for market manipulation, data bias, lack of transparency, and raised compliance challenges concerning ethical standards. These challenges within these systems can be attributed largely to reasons contained within our main three subtopics concerning ethical AI design, regulatory frameworks, and monitoring enforcement of such frameworks. Recognizing the potential risks of such AI systems therefore requires us to address them through not only the creation of AI that is designed with these ethical considerations in mind but also create international standards regarding this which can then be enforced.

While there currently are certain international norms concerning AI usage in the financial sector, it is necessary to establish more clear norms and principles surrounding this. Furthermore, a lack of current forms of enforcement means that the many norms are not only unestablished but all actors do not follow the current norms. This only leads to a perpetuating cycle, where a lack of these norms allows corporations to design AI in a manner that permits it to be used in an unethical manner or be vulnerable to such exploitation.

Sub-Topic 1: Ethical AI Design and Implementation:

One main contributor to the issues presented by AI in financial markets, specifically concerning market manipulation, is their designs. As aforementioned, many different models such as NLPs, GNNs, and Captcha technologies are used in Fraud detection. The concern for financial markets is not so much these models, but rather their marketplace counterparts, which have potential ethical concerns concerning data privacy, market manipulation, and transparency. In focusing on different aspects of AI design and training during implementation, we must look at the important aspects of AI that have prevented it from being implemented at a large scale as well as what features have demonstrated certain challenges, specifically considering human ethics of design regarding privacy, security, and fairness. This would include data quality, transparency, bias, and compliance of corporations utilizing, training, and developing AI models.

Data Quality and Security

The foundation of AI in finance is high-quality data. Accurate and clean data is critical for training machine learning models to make reliable predictions and decisions. Many banks have struggled for this reason to implement AI in a large-scale manner. "Reasons include the lack of a clear strategy for AI, an inflexible and investment-starved technology core, fragmented data assets,

and outmoded operating models that hamper collaboration between business and technology teams" (Soller). Financial institutions must ensure that they comply with data privacy regulations like GDPR (CCPA) in Europe and CCPA in California, as they work with sensitive customer information. Therefore having data sets around customers is a breach of security, despite its clear benefits in aiding the training of models. Therefore large-scale training would require more robust data, which may involve a breach of security, which many banks are not willing to do, while other banks can exploit legal loopholes, further emphasizing how important it is to have more robust codification of laws that outline what can be done with customer data, as well as a creating greater focus on customer consent in regards to their data.

Transparency and Explainability

Another important design consideration for AI models is related to transparency and explainability. "Explainable artificial intelligence (XAI) is a set of processes and methods that allows human users to comprehend and trust the results and output created by machine learning algorithms" (IBM). Since artificial intelligence models are often based around machine learning, which operates in a "black box", it means that the human user does not understand how it truly makes decisions, and it can only be observed that it is making the decisions we want it to. This opacity is a significant challenge in finance, where regulations such as the European Union's Markets in Financial Instruments Directive II (MiFID II) demand that investment decisions be transparent and explainable. Designers must develop AI systems that can explain their outputs clearly, especially in decision-making contexts like credit scoring and loan approval. The AI Act lays down harmonized rules on AI by following a risk-based approach. There are four risk categories outlined in MiFID II: unacceptable AI, high risk, limited risk, and minimal risk (MiFID II). Aiming for AI design that focuses on minimal risk, which involves mitigating "lack of oversight or human judgment; lack of transparency and explainability around the AI tool's decision-making processes; data privacy or security; and data input training bias or "hallucinations" leading to misleading advice or portfolio management" (MiFID II).

Sub-Topic 2: Regulatory Frameworks and Governance

This section will go into more detail on the complicated regulatory frameworks that AI technologies must follow as they are increasingly incorporated into financial processes. However, because global standards for AI governance in finance are still developing, it is still difficult to achieve consistent compliance across national borders. Cooperation and strong state-level enforcement will be crucial to promoting global accountability as governments and international organizations work to create unified norms. In order to guarantee the moral and open application of AI in financial services, regulatory compliance is essential. Institutions must balance preserving operational effectiveness with adjusting their AI systems to quickly evolving legislation. Beyond merely fulfilling technical

specifications, ensuring compliance entails fostering equity, reducing biases in data models, and putting in place transparent enforcement procedures.

Regulatory Compliance

AI in finance must align with stringent regulatory frameworks such as the aforementioned GDPR in Europe and CCPA in California. Institutions must design AI models that can adapt to changing regulations and ensure compliance with financial standards like the Dodd-Frank Act (CFTC) and Basel III (Basel III). Although such frameworks like Basel III aim to outline regulation regarding banking, it is difficult to find an internationally accepted framework across the globe. These frameworks currently include implementing automated monitoring systems to assess ongoing compliance with AI-powered operations, but detailed guidelines for specific AI capabilities, such as algorithmic transparency and ethical decision-making processes, still need to be defined. Lastly, concerning the issue of regulatory compliance, it is important to consider state enforcement, considering that the main actors in the international community in a realist view are states, which would be capable of coercing financial institutions to follow such frameworks, considering if the international community took more effort towards constructing more detailed and better outlines.

Bias and Fairness

Financial decisions must be fair and free of discrimination, which is an accepted norm and international principle, that a Global Finance Regime can define. Regarding the idea or notion of quality data, it is important to have a wide range of data, since previous inequalities within datasets, historical biases, and existing inequalities can all be perpetuated in insurance and investment AI models, especially with the lack of more robust data models. Ensuring fairness in AI requires continuously monitoring algorithms for bias and ensuring diverse, representative data inputs during the training phase. It is also important to note that “the AI tools described in this paper cannot (yet) think and act analogously to humans, which is both a strength and a weakness of their use” (IBM). In this sense, AI is unable to recognize or feel anything concerning biases and inequalities in data sets, therefore it is difficult to identify such issues within a model. Important considerations must therefore be made during the training process since it is very difficult to scrub out all subconscious biases from such datasets entirely.

Sub-Topic 3: Monitoring and International Collaboration

The monitoring, enforcement, and international collaboration aspects are crucial in addressing this issue. The concern in this case depends on whether actors on the global political stage are following current guidelines or norms that have been established by the international community. The de-facto existence of a Global Artificial Intelligence Regime is undeniable, and therefore global action must be taken in the de jure realm in order to establish a more strict framework that can be enforced

and monitored by such a regime. Enforcement and regulatory mechanisms could include various different kinds, which have been addressed in similar issues throughout other global regimes.

Regulatory Gaps and Enforcement Challenges

In discussing the challenges in enforcement, we will reference a similar enforcement mechanism as part of the United Nations Framework Convention on Climate Change (UNFCCC), particularly the Kyoto Protocol (UNFCCC). "Article 5, paragraph 2, of the Kyoto Protocol" and Article 7, paragraph 4, establish guidelines regarding reporting and compliance. "Apart from the three-week deadline given to complete its preliminary examination, no fixed deadlines are provided for the facilitative branch" (UNFCCC). Although there are challenges with such a platform in the UNFCCC Kyoto Protocol, applying a similar platform to a Global AI regime would enable the monitoring, as well as regulatory compliance of international actors. Regarding the aspect that much of the AI market is represented by shareholders in private firms, especially in the financial sector, it is important to note that state pressures can play a great role, especially when viewing this from a realist perspective of global politics, where states are the supreme actor of the global political stage and therefore able to exert pressures on MNCs and other financial institutions that no other non-state actors can. For example, while the EU AI Act sets stringent standards for high-risk AI systems, other regions, such as parts of Asia or the Americas, lack comparable legislation (Skadden).

The Role of International Collaboration

As aforementioned, certain regions of the world lack guidelines that have been set in the global north, such as the EU AI Act. Therefore it is important to address the issue of structural inequalities and global development in this case, where the benefits of globalization are not evenly distributed between the global north and south, leading to economic disparities that have repercussions in various areas such as the financial sector and legislative branches of individual global southern states.

Technological Tools for Monitoring

Lastly, in considering the monitoring of violations of certain frameworks that may be set up, it is important to consider that the novel rise of AI technology requires us to monitor it similarly. Utilizing conventional monitoring methods, especially in the financial sector would prove unreliable, therefore strict regulations must be set out that enable global actors to use the most secure forms of AI to monitor the enforcement of financial AI-related guidelines as part of a Global AI regime. Advances in AI itself can be leveraged to monitor and enforce ethical practices. For instance, AI-based auditing tools can evaluate trading algorithms in real time to detect anomalies or manipulative patterns. These tools, coupled with regulatory sandboxes, allow regulators to test AI systems in controlled environments before approving them for widespread use.

Major Organizations Involved

European Union

The European Union, or EU, has pioneered much of the modern AI regulatory framework through implementing acts such as the AI Act, "Regulation (EU) 2024/1689 laying down harmonized rules on artificial intelligence" (AI Act). Risk by the EU regarding AI can be quantified by four primary categories: Unacceptable risk, High risk, Limited risk, and Minimal risk. High risk includes risk to critical infrastructure, limited risk includes transparency concerning AI development and usage, and minimal risk contains things such as "AI-enabled video games or spam filters" which pose little to no threats. European Securities and Markets Authority (ESMA) oversees the use of AI in trading and compliance with the Market Abuse Regulation, another example of the EU being involved as a main player in AI regulatory frameworks.

International Organization of Securities Commissions (IOSCO)

IOSCO is the international body that brings together the world's securities regulators and is recognized as the global standard setter for financial markets regulation (IOSCO). The IOSCO guides the ethical use of AI and machine learning in securities markets, focusing on preventing market abuse. The G20 and FSB endorse them, and the IOSCO is responsible for "95% of the world's securities markets in more than 130 jurisdictions" (IOSCO). The IOSCO could therefore be an influential player in guiding and helping enforce certain guidelines, being an IGO that is reputable, which is an actor on the global stage that can wield greater enforcement power than a simple framework.

World Economic Forum (WEF)

"The World Economic Forum is the International Organization for Public-Private Cooperation. It provides a global, impartial, and not-for-profit platform for meaningful connection between stakeholders to establish trust, and build initiatives for cooperation and progress" (World Economic Forum). The World Economic Forum could be a key in developing AI regulatory frameworks in financial markets, considering their influence on the global economic and financial stage.

Timeline of Important Events

Date	Description of Event
May 24th, 2016 [1]	The EU General Data Protection Regulation (GDPR) was adopted, setting a global benchmark for data privacy and emphasizing the ethical use of personal data in AI systems.

[1] "Legal Framework of EU Data Protection." *European Commission*, commission.europa.eu/law/law-topic/data-protection/legal-framework-eu-data-protection_en.

	This is an important event since it outlines a key attempt to create guidelines that protect data, which is very important in the financial sector where the ever-increasing usage of AI demands safety concerns for its users.
June 28th 2018 [2]	The California Consumer Privacy Act (CCPA) was signed into law, providing consumers more control over personal data, impacting AI-powered financial models reliant on data. This is a significant event for the issue of AI usage in financial markets since it allows for the regulation of consumer protections, which as aforementioned is a notable concern.
April 7th, 2021 [3]	The European Commission proposed the AI Act, categorizing AI systems by risk and setting regulations to address safety and rights concerns, specifically targeting high-risk applications like financial AI tools.
2023	Several financial institutions began piloting AI-driven compliance solutions, aligning with regulations such as MiFID II and Basel III, which stress transparency and fairness in automated systems. Financial institutions started realizing the importance of such frameworks.

Relevant UN Treaties and Events

The UN called on member nations to close the digital divide and guarantee fair access to AI technology in 2024 as its attention turned even more to the socio-economic effects of AI (UN). This resolution emphasized the potential for artificial intelligence to exacerbate inequality and the necessity. The need for international cooperation on AI regulation, especially with regard to its consequences for human rights, peace, and security, was highlighted in a significant resolution passed by the UN General Assembly in 2021 (News UN).

The UN's efforts demonstrate a worldwide commitment to utilizing AI's revolutionary potential for equitable growth while reducing its hazards, especially its misuse in financial markets. These decisions have important ramifications for market manipulation and financial services. They emphasize how important it is for nations to work together to create uniform regulations that stop the immoral use of AI, including algorithms that allow for market manipulation.

[2] "California Consumer Privacy Act (CCPA)." *State of California - Department of Justice - Office of the Attorney General*, 13 Mar. 2024, oag.ca.gov/privacy/ccpa.

[3] "AI Act." *Shaping Europe's Digital Future*, 19 Nov. 2024, digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai.

Possible Solutions

Sub-Topic 1: Ethical AI Design and Implementation

Addressing ethical AI design requires focusing on data quality, transparency, and fairness. As aforementioned, ensuring high-quality data is critical; financial institutions must follow privacy regulations like GDPR and CCPA to handle sensitive customer information securely. States must cooperate to create systems that would help regulate norms established within the international community. Designing AI systems with built-in bias mitigation is essential, as biased training data can perpetuate inequalities in financial decisions. Transparent systems, like those aligned with explainable AI (XAI) principles, can help users understand decision-making processes, fulfilling regulatory requirements such as MiFID II. Ensuring that the international community and actors within it are held accountable for decisions made regarding AI is important, with penalties and accountability measures being an important aspect of solving the issue of non-compliance to internationally accepted norms.

Sub-Topic 2: Regulatory Frameworks and Governance

Strengthened state-level enforcement mechanisms are also crucial, allowing governments to leverage their power to ensure corporate compliance. For example, incorporating automated monitoring systems and fostering industry cooperation through regulatory sandboxes can promote adherence to emerging laws. On both a state level and interstate level, it is important to hold actors at the more local level of analysis accountable, especially within state borders. To navigate diverse global regulations, financial institutions must develop AI systems that adapt to frameworks like Basel III and the EU AI Act. These frameworks demand transparency, algorithmic accountability, and robust compliance mechanisms. However, gaps in international consistency necessitate the creation of a global governance model. Creating a global regime surrounding AI use, specifically in the financial sector could be a way to battle this issue, by utilizing a form of global governance that is more specifically suited for this issue, and functions alongside the United Nations.

Sub-Topic 3: Monitoring, Enforcement, and International Collaboration

Effective monitoring and enforcement require leveraging technological tools like AI-driven auditing systems to identify unethical practices, such as market manipulation, in real-time. One of the main challenges in battling this issue is recognizing violations of this issue, as well as accountability. In order to identify the violators, AI systems can be used to battle against AI-posed challenges, which would create a robust mechanism for discouraging international AI norms violations. International collaboration is key to addressing the cross-border nature of financial markets. Organizations like the IOSCO and initiatives like the EU AI Act provide templates for unified governance, but global efforts should focus on creating a de facto Global AI Regime. This would establish clear, enforceable norms

and monitoring protocols. Additionally, using AI to enforce compliance ensures consistency and accuracy, making it easier to detect violations.

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