Written evidence submitted by The Futures Industry Association (FIA)

The Futures Industry Association (FIA)¹ welcomes the opportunity to respond to the Treasury Committee's <u>Call for Evidence</u> on AI in financial service which seeks to understand on how the UK financial services can take advantage of the opportunities in AI while mitigating any threats to financial stability and safeguarding financial consumers.

Innovation has long been a catalyst for growth and opportunity in derivative markets. New technologies have fostered new business opportunities, new products and enhanced the accessibility and transparency of markets for existing and new participants. Furthermore, the evolution of technology has underpinned the global reach of our markets, breaking down geographic barriers and enabling global markets to compete and thrive while safeguarding customers and investors.

We recognise that many policymakers are examining current and future uses of AI technology in the financial sector. Regulatory coordination and a globally harmonised approach to regulation is essential to avoid regulatory divergence and overlap which will create unnecessary complexities for firms whilst also acting as a barrier to entry and adoption of AI models and products, thus stifling innovation in our markets.

FIA members are encouraged by the Joint Statement², signed on 23 July 2024 by EU, UK and US competition authorities where regulators committed to further cooperation when monitoring the AI landscape. We are confident that coordination and cooperation between regulators will limit regulatory divergence.

In the financial services sector, market participants' use of technology, including AI, is already subject to comprehensive regulatory scrutiny. This regulatory framework is technology-neutral and should remain so. FIA members caution against more vertical legislation for the financial sector which will cause regulatory overlap when considered alongside existing regulation. FIA members believe that existing rules and regulations, including UK MiFID II, UK GDPR and the UK Data Protection Act, together with existing FCA and UK Government initiatives, most notably the recent consultation (CP 1205) on copyright and AI which addresses the need to promote innovation and creativity for the economy/financial markets whilst balancing that with the rights of those who create & innovate via copyright laws, already provide the controls and oversight needed to promote and protect the integrity and resilience of financial markets.

Technological advancement is not new to the futures industry. Many of our members have been working with AI for many years and are managing any associated risks accordingly, including via

¹ FIA is the leading global trade organisation for the futures, options and centrally cleared derivatives markets, with offices in London, Brussels, Singapore and Washington, DC. Our membership includes clearing firms, exchanges, clearinghouses, trading firms and commodities specialists from about 50 countries as well as technology vendors, law firms and other professional service providers.

² https://www.gov.uk/government/publications/joint-statement-on-competition-in-generative-ai-foundation-models-and-ai- products/joint-statement-on-competition-in-generative-ai-foundation-models-and-ai-products

well-established 3 Lines of Defence operating models.

Furthermore, the banking sector is already subject to strong sectoral regulation and supervision, which promotes consumer and investor protection, risk management, financial stability and well-functioning markets.

This regulatory framework ensures that companies have robust governance arrangements in place for the use of technology, including AI, and that risks are appropriately managed.

Today, AI is used in areas such as risk management, fraud detection and customer service with the potential to improve decision-making and increase efficiencies. It is with this in mind that we set out our response to the Committee's Call for Evidence.

FIA represents a broad area of financial market participants. As a result, our response to the questions below do not reflect one AI application but rather a general view on the Committee's questions.

How is Al currently used in different sectors of financial services and how is this likely to change over the next ten years?

This may include:

- Are there particular areas of financial services that are adopting AI more quickly and at higher rates of penetration than others? Are Fintech firms better suited to adopting AI? What percentage of trading is driven by algorithms/artificial intelligence?
- Are financial services adopting Al at a faster rate than other sectors in the economy?

FIA response:

The use of AI applications is not new to the financial sector. That said, the implementation of AI for a particular use case varies from firm to firm. Generally speaking, AI applications offer increased benefits when distilling written materials, extracting data to isolate specific information and/or summarising large volumes of data from single or multiple sources through general data scrutiny. Implementation of AI for a particular use will ultimately depend on the business need and involve assessing whether an AI solution would perform better than existing solutions in terms of speed, accuracy, cost, security and other factors depending on the specific use case.

Our members believe that the development and implementation of AI applications in the financial sector can offer numerous benefits that enhance operational efficiency, risk management and overall market competitiveness.

Early use cases of AI technology tend to focus on non-customer-facing activities where AI solutions can reduce costs and improve efficiencies through synthesizing large data sets and performing general queries to aid in decision-making. AI applications can be used in order to automate repetitive tasks and processes which enable firms to streamline operations and

reduce manual error.

Example use cases include:

- Extracting data from documents for processing (e.g. Al-based Optical Character Recognition to locate and extract required data from diverse document types).
- Analysing large quantities of data (e.g. summarising lengthy documents such as research reports).
- Predictions and forecasting by analysing historical data and identifying patterns.
- Enhanced compliance processes such as fraud detection whereby AI technology can be used to analyse vast amounts of data with speed and accuracy in order to detect anomalies in trading patterns.
- Improvements in risk identification and prevention, enhancing capabilities in areas such as anti-money laundering and trade surveillance.
- Translation or generation of text (e.g. German to English, or from technical requirements into draft computer code).
- The deployment of AI in customer interfaces, such as chatbots, may also improve customer service by providing quick and efficient responses to inquiries and enhancing overall customer satisfaction.
- All applications being used to aid communication surveillance in order to help detect anomalies within large volume of data, including email and voice communications.
- All can aid in creating new, innovative products and services tailored to customer needs.

In the short term, customer service, developer coding productivity and operational efficiency stand to benefit the most. Al-driven chatbots and virtual assistants can provide immediate improvements in aiding employees with customer inquiries, offering personalised assistance, and automating routine tasks such as transaction processing and document verification.

In the medium term, risk management and fraud detection are likely to see significant advancements. Al models can analyse vast amounts of data to identify patterns and anomalies, enhancing our ability to predict market trends, assess credit risks, and detect fraudulent activities. By integrating advanced Al algorithms into our risk assessment processes, market participants can develop real-time monitoring capabilities, more accurate credit scoring models and improve our fraud detection systems, thereby reducing financial losses and enhancing security within the financial sector.

Looking towards the long term, we expect tools and techniques to be developed to mitigate the concerns that currently exist around GenAl, thereby making further use cases viable, leading to tangible financial and operational benefits to both financial services firms and customers.

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Additionally, regulatory compliance and reporting will benefit from AI in different time horizons. AI can automate the generation of compliance reports, ensuring accuracy and timeliness while reducing the manual effort involved. This can help financial institutions to comply with evolving regulations and streamline the reporting process. For example, AI systems can improve the monitoring of transactions for suspicious activities and generate comprehensive compliance reports, enhancing our members' ability to meet regulatory requirements efficiently.

To what extent can AI improve productivity in financial services?

This may include:

- Where are the best use cases for AI? Which particular transactions may benefit from AI?
- What are the key barriers to adoption of AI in financial services?
- Are there areas where the financial services should be adopting GenAl with little or no risk?
- Are there likely to be job losses arising from AI in financial services and if so, where?
- Is the UK's financial sector well-placed to take advantage of AI in financial services compared to other countries?

FIA response:

Some exemplary benefits of using AI applications are:

- Faster processing (of large datasets and documents) and related cost reduction.
- More accurate outcomes (e.g. finding the 'needle in the haystack' and raising fewer false positives).
- Operational efficiencies and productivity (reduced manual input and a reduction of surveillance false positives to review).
- Al may enhance and augment human performance freeing up human workers to focus on more strategic and creative endeavours, potentially increasing overall value.
- Al algorithms can analyse customer data and preferences which enable firms to provide more personalised offerings and experiences.
- Al models can identify patterns in historical data, potentially enabling more accurate predictions and forecasts, which could in turn inform better decision-making across an organisation, resulting in better risk management and overall market competitiveness.

It is important to note that these are potential benefits, and the specific results will depend on the successful development and implementation of AI applications within the risk framework that members have in place.

Al technology has an additional amount of use cases with potential benefits. Prior to the arrival of generative AI (a form of general-purpose AI), each AI model would have to be trained for a specific task. With generative AI, it is possible to ask the model a new question with limited training; it has demonstrated capabilities in responding to a comprehensive range of requests. This allows generative AI to be used in a broad range of scenarios without having to expend significant amounts of time, effort, or resources to yield rapid results. At the same time, it is also true that the larger the selection of relevant, high-quality datasets available for training and testing, the better these models can learn and generalise, leading to enhanced performance. Moreover, generative AI applications benefit from continuous access to new data to remain relevant and adapt to changing trends.

Generative AI can generate computer code from a brief description, can translate text from one language to another, can draft a cover letter, create a draft plan for a new project, explain complex concepts in simple concise language, or extract required data from a large document in a specific required format. These models can efficiently process and analyse large datasets, which is crucial for tasks like fraud detection, thereby improving the speed and accuracy of data-driven decisions, benefitting both customers and markets.

Such general-purpose AI models like large language models can improve the efficiency of a wide variety of tasks, from customer service chatbots to report generation and data analysis. Alpowered chatbots and virtual assistants can provide more natural interactions for customer support and engagement. Generative AI can also be used to generate personalised communications, content, and insights for customers.

Increased tailoring of large language models could deliver significantly enhanced performance of finance-specific tasks, compared to general-purpose models, if they are trained, refined, or fine-tuned using datasets relevant to, for example, contractual terms, customer queries and their resolutions.

The June 2024 FIA/Acuiti report, a survey of more than 100 firms active in Europe found that AI has the potential to aid investment professionals in developing and designing investment strategies, research, and analysis and, in the longer term, could also be applied to portfolio and collateral management.

What are the risks to financial stability arising from AI and how can they be mitigated?

This may include:

- Does Al increase the risks relating to cybersecurity?
- What are the risks around third-party dependencies, model complexity, and embedded or 'hidden' models?
- How significant are the risks of GenAl hallucination and herding behaviour?
- Are the risks of having AI tools used in the financial sector concentrated in the hands of a few large tech companies? To what extent do the AI financial market tools rely on social media outlets? E.g. trading algorithms using social media posts?

FIA response:

It is important to note that, like all technologies, any risk posed by AI is entirely dependent on the purpose for which it is used and the associated output. Furthermore, negative aspects, including perceived risks, relating to AI may change over time. As a result, we encourage policymakers and regulators not to consider this response as being limited to a characterisation of AI-specific risks. In fact, we argue that the risks/negative aspects set out below can be categorised as technology risk for which market participants are well versed in managing/mitigating through risk mitigation models. Many of our members have been working with AI for many years and are managing any associated risks accordingly, including via well-established 3 Lines of Defence operating models.

Furthermore, financial services are already subject to strong sectoral regulation and supervision, which promotes consumer and investor protection, sound risk management, financial stability and well-functioning markets. This regulatory framework ensures that companies have robust governance arrangements in place for the use of technology, including AI, and that risks are appropriately managed.

With that in mind, barriers to adopting these use cases include:

- Limited regulatory coordination which creates challenges for firms when developing and incorporating in-house AI applications that must comply across multiple regulatory frameworks.
- Data sourcing, quality and cleansing to make suitable for AI use;
- Industrialisation and implementation of the system and integration within banking processes;
- Explainability of the models and/or outputs;
- Talent availability (finding relevant and up-to-date skills on the market, i.e. knowledge of AI and Data Science combined with relevant experience in financial services domain);
- GDPR/Data Privacy the increasing use of AI for decision making must prevent issues arising as a result of bias and/or vulnerability. Fair treatment of consumers, employees and others must be prioritised when collecting data for AML/KYC and/or Human Resources in the event that AI forms part of the hiring and evaluation process.
- Copyright issues may arise when users perform additional training methods on data used to train the models. In this scenario, are copyright owners' rights infringed? Furthermore, stakeholders must assess whether AI can create new copyright material if the material is not human-generated. If so, who owns the output since it is "trained" by data input? These challenges are compounded given that different copyright laws exist across jurisdictions.
- ESG considerations may influence the adoption of AI given that financial institutions are increasingly required to evidence sustainability credentials and comply with related ESG regulations. One must assess whether the use of AI impacts this in so far as the energy consumption of AI (data centres storage, cooling/water & electricity consumption).
- Governance aspects including the Senior Managers and Certification Regime and responsibility for ensuring good governance around use of AI.
- Infrastructure and development costs and complexity. Given that cost of creating Large Language Models, smaller institutions may be forced to use cheaper, smaller language models which may limit the reliability of the data/output generated by the AI.
- As with any roll-out of new technology, it is necessary to embed AI within the existing tech

framework. This may include acquiring staff with specific skills to build and maintain Al applications and investing in training staff.

- Third-party vendor risks that may arise in the future and are not managed by existing rules , for example outsourcing requirements under UK MIFID II and FCA rules.
- Concentration risk may exist where a limited number of solution providers exist. This is especially prevalent where the particular use case for an application is nuanced.
- Cyber security risk-As an emergent technology, AI applications also face these challenges and developers/end-users must address and mitigate against cyber security risk within the various lifecycle stages of AI product development and their use.

How can Government and financial regulators strike the right balance between seizing the opportunities of AI but at the same time protecting consumers and mitigating against any threats to financial stability?

This may include:

- Are new regulations needed or do existing regulations need to be modified because of AI?
- Will Government and regulators need additional information, resources or expertise to help monitor, support and regulate, Al implementation in financial services?

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FIA response:

Our members expect the focus of the AI industry to remain on improving generative AI capabilities. This will lead to improvements that mitigate some of the issues highlighted such as bias, errors, 'hallucinations', and potentially harmful results. Our members also expect to see a number of 'fintech'-type suppliers begin to offer services where generative AI is tailored towards banks' needs. Through this means as well as through direct deployment by banks we expect to see AI deployments propagate across the industry. A number of research and consultancy papers have already discussed the potential, for example, of AI agents as "virtual co-workers able to complete complex workflows." This and other potential advances in the realm of AI offer significant further potential for market participants and broadly within financial services. As such, the regulatory framework allows and should continue to allow these developments to take place.

It is our view that current financial services regulation is sufficient and we are keen to avoid publication of vertical AI regulation.

As previously noted, the banking sector is already subject to strong sectoral regulation and supervision, which promotes consumer and investor protection, risk management, financial stability and well-functioning markets. Potential risks to market integrity and efficiency stemming from the interaction of certain algorithmic trading strategies are already addressed by existing regulations. Market surveillance tools under UK MiFID II and FSMA / UK MAR are designed and kept up to date to detect suspicious patterns, whether caused by human or machine actions and may need further adaptation as AI trading becomes more prevalent. In the context of abnormal market conditions and potential bouts of illiquidity, regulations already

require firms to ensure that their algorithms do not contribute to disorderly markets by maintaining liquidity or preventing simultaneous withdrawal from trading in stressed conditions.

We encourage regulators to collaborate and maintain an open dialogue with financial institutions. FIA members commend the joint Bank of England/FCA Public-Private Forum on AI and the creation of the Bank's AI Consortium launched with the aim to gather input and information from stakeholders on the use of AI in Financial services. This collaboration, as well as the use of regulatory sandboxes to allow financial institutions to test new AI use cases, creates a working relationship with regulators and will be essential to identify any AI-specific risks and determine if regulatory gaps exist.

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