

ICMA Response to FCA consultation on current and future uses of Artificial Intelligence (AI) in UK financial services, as well as the financial services regulatory framework

Submitted via FCA AI Input Zone

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1. What AI use cases are you considering or exploring in your firm/organisation? What do transformative AI use cases look like in the next 5 to 10 years?

ICMA welcomes the opportunity to respond to the FCA's consultation on current and future uses of Artificial Intelligence (AI) in UK financial services, as well as the financial services regulatory framework. ICMA promotes resilient well-functioning international and globally coherent debt securities markets, which are essential to fund sustainable economic growth and development.

The response reflects the views of a subset of ICMA's [AI in Capital Markets Working Group](#), notably issuers, banks, investors, market infrastructures and law firms across the international debt capital markets. The feedback in this response is based on the initial findings of participants, who are at various stages of their AI trajectory. We have, in addition, encouraged all our members across all market sectors, who are part of this extensive group of individuals, to complete the survey bilaterally on behalf of their own organisation. We hope this will extend the depth of response from the capital markets industry.

The UK Government's recent announcement of the cross-sector "AI Opportunities Action Plan" demonstrates the desire to create an environment that encourages innovation and investment in AI technology. Likewise, ICMA members are in principle supportive of innovation in capital markets and are exploring various AI use cases in their own organisations. For the purpose of this response, AI is understood to be a machine-based system that extends to include machine learning and other techniques such as natural language processing and generative AI (Gen AI). Gen AI, or other specific techniques, will be explicitly referenced if it is being directly considered in response to a question.

Many firms in the capital markets industry have well-established machine learning models that have evolved over time and have been used for a range of different use cases. These include algorithmic trading, predicting future movements in bond prices, interest rates and to measure and assess market sentiment. These use cases, although not new, may expand as firms look to potentially capitalise on advancements in AI technology to optimise their processes and create further value through their workflows. We have seen examples of this in our AI in Capital Markets Working Group, such as prototypes that use AI and ICMA's Bond Data Taxonomy (BDT) to extract relevant information from bond documentation, preventing settlement fails and enhancing liquidity management. Such examples of AI use cases could be understood to be "transformative", as they apply existing AI technology to previously unmodified workflows, resulting in largely optimised and/or changed operational processes.

Other applications of AI that members highlight pertain to the increasingly complex regulatory requirements that applies to firms. International firms are subject to both the UK's regulatory regime and the global regulatory landscape, which can result in highly complex compliance

needs. Some firms are using AI to enhance compliance monitoring, align global expectations of specific provisions and flag potential breaches of regulation (e.g. using “regtech”) to further mitigate risk.

Additionally, AI is considered by ICMA members as a useful tool to enhance the quality and quantity of research an organisation is able to undertake. This could include internal AI applications that utilize Gen AI and Large Language Models (LLMs), to automate the process of summarizing large amounts of information, make unstructured data more accessible, and enable employees without extensive technological experience to interact with larger datasets in a simpler way than before. Such examples could also be considered “transformative” as they have democratised access to information, raising interest from the public, government, and regulatory authorities. The efficiency gains made possible in research are encouraging many firms to consider incorporating AI for this purpose. ICMA has also been closely following the speed at which AI usage in bond markets is evolving, and in particular, the adoption of Gen AI techniques, on their [tracker of new fintech applications](#). However, these examples will require internal risk and governance frameworks to ensure their responsible use, and in general, regulated entities take a risk-based approach to the AI implementation and tend to approach use cases that could pose higher risks with greater caution.

As demonstrated, AI usage can have multiple, yet distinct, “transformative” attributes. ICMA members highlight the importance of distinguishing between AI techniques that have existed within firms for a long time and are being applied to new processes, and new AI techniques that are still largely in the proof-of-concept stage, such as Gen AI, especially if this feedback will be used to shape the future regulatory approach.

2. Are there any barriers to adopting these use cases currently, or in the future?

The level of training, education, and oversight needed to implement and use AI, especially in regard to Gen AI and LLM applications, is resource intensive. For example, when using AI to enhance research, training may be needed to learn how to write prompts effectively so LLM’s can find the most relevant information. ICMA has recently increased its education offering on AI to the debt capital market industry to prioritise and help address this need for skills uplift by users of models and their outputs.

Additionally, third-party foundation models may require amendments to suit individual business needs, a level of adaptability, and ongoing supervision to keep them up to date. This can raise costs even for “off the shelf” models. Organisations with fewer resources available to support AI models continuously may therefore struggle to adopt AI. However, this is not a universal case, and many smaller firms are investing in and effectively using AI.

As discussed, ICMA members reinforce the importance of having internal risk frameworks and human oversight in place to manage the risks associated with AI. Included in these frameworks are a series of explainability requirements to enable testing, validation, and model development, whilst also encouraging a general duty of understanding and responsibility for AI use across the firm. Often, these frameworks require a certain level of understanding as to “why” and “how” an AI model reached its conclusion, which can be highly technical and act as a barrier to implementation if such standards cannot be met. For example, newer AI techniques that are multi-disciplinary may require a wealth of expertise not possible for one individual to

cover alone, and maintaining teams to meet these requirements could be challenging due to the current demand for experts in the industry. That being said, this acts mainly as a barrier to future use cases, as current AI applications have operated successfully for a long time under these frameworks.

Gen AI use cases carry risks exclusive to them that are well represented in literature already, such as their tendency to hallucinate (i.e. producing erroneous information), reinforce biases, and their dependency on robust data for accurate results. In particular, the hallucination aspect of Gen AI models can act as a potential barrier to implementation as it is often unexplainable and challenging to prevent, which in turn may fail internal guardrails. Although there are some methods in development to improve the accuracy of Gen AI models, those implementing Gen AI will still need to reassess the parameters of success in light of these risks, whilst also implementing human oversight and internal frameworks to ensure its responsible use.

3. Is current financial services regulation sufficient to support firms to embrace the benefits of AI in a safe and responsible way, or does it need to evolve?

Currently, organisations in financial services are subject to a number of technology agnostic frameworks that apply safeguards to technology use generally, including AI, such as AIFMD, UCITS, MIFID II, MIFIR, DORA, the PRA Rulebook, and SM&CR. Much of the industry's use of AI has successfully operated under these regulatory frameworks to date.

It may be possible that some new use cases provide additional challenges for the regulator, not covered by these existing regulations. It is important, therefore, that the current regulatory regime can allow for flexibility to address any new risks that specific use cases may introduce and ensure that it does not contradict or duplicate existing frameworks.

Understanding the interplay between the various frameworks that make up the current regulatory regime could be a challenge for firms looking to embrace the benefits of AI in a safe and responsible way. This can be especially complex when considering the non-financial regulation firms are also subject to, such as GDPR, and upcoming regulation such as the cyber security and resilience bill (CS&R) and DORA, that impose additional considerations for the use of technology such as AI.

Remaining competitive on a global scale and being able to capitalise on innovation opportunities in the industry is an important factor for the well-functioning of international debt securities markets. Therefore, trends in the global landscape, such as the strong indication of opposition to AI regulation by the new United States administration, should also be considered by the regulator when assessing the next steps. As wider provisions already capture safeguards on the use of technology, any potential changes to the future position on AI by the regulator should consider firm competitiveness and be communicated transparently and in a timely manner to the industry.

4. What specific changes or additions to the current regulatory regime, or areas of further clarification/guidance, do you think are needed?

ICMA members reiterate that many applications of AI, under the broader understanding of the term to include AI and machine learning, have already existed in compatibility with the current regulatory regime.

Specific examples of how the regulatory regime is applied to use cases in financial services could benefit firms looking to incorporate AI safely. For example, a clear definition of AI is not always outlined in regulation, which can provide challenges to those trying to interpret the regime for their organisation. Establishing a number of examples of regulation applied to use cases may help to clarify the interpretation and scope of applications covered by the terminology.

Similarly, approaching regulation through industry examples may also help to clarify whether firms that fall outside of the scope of the FCA & PRA rulebook (and financial services regulation) yet operate in the financial markets on a quasi-level are subject to the same stringent level of regulation compared to traditional financial institutions. One area of concern is that these types of firms may currently pose a risk to the stability of the financial services industry if they believe to fall outside of the scope of regulation, and therefore do not apply the same level of safeguards to their activities as traditional institutions.

Additionally, whilst there is guidance on governance expectations, the industry could benefit from further clarification on who (for example department or managerial level) is responsible for the risks associated with new AI use cases within a firm. Although organisations will internally uphold a clear assignment of responsibility over AI, firms are currently approaching this in different ways, and there is a lack of clarity as to whether current processes will be sufficient to meet regulators' expectations in future.

Contact

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