Consultation Response
DP5/22 – Artificial Intelligence and Machine Learning
10 February 2023

The Association for Financial Markets in Europe (AFME) welcomes the opportunity to comment on **DP5/22 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING** ("the DP"). AFME represents a broad array of European and global participants in the wholesale financial markets. Its members comprise pan-EU and global banks as well as key regional banks, brokers, law firms, investors and other financial market participants. We advocate stable, competitive, sustainable European financial markets that support economic growth and benefit society.

AFME is the European member of the Global Financial Markets Association (GFMA) a global alliance with the Securities Industry and Financial Markets Association (SIFMA) in the US, and the Asia Securities Industry and Financial Markets Association (ASIFMA) in Asia.

We summarise below our high-level response to the consultation, which is followed by answers to the individual questions raised.

Executive Summary

AFME welcomes the opportunity to provide input into the UK's approach to Artificial Intelligence (AI) and Machine Learning (ML) in financial services. In summary, we believe that:

- Maintaining the current outcomes-focused, technology-neutral approach to regulation would be preferable, rather than emphasising a specific focus on regulating AI;

- On this basis, a sectoral definition of AI is not required;

- Any supervisory focus on the use of AI within financial services should be principles-based and linked to the level of risk posed by an individual AI application and the extent to which this is being addressed by the user (i.e. the firm), rather than a regulation being developed to apply to all uses of AI;

- There are areas where the industry would welcome more dialogue and guidance on supervisory expectations, for example the use of AI in anti-financial crime and anti-fraud; and

- Certain aspects of data regulation raise concerns for the development of AI, for example the trend towards data localisation requirements and the manner in which Open Finance and Data Sharing may be implemented may stunt the innovation of AI due to a lack of harmonization.

We would be happy to discuss any of the points raised in this consultation in more detail.

Supervisory Authorities' Objectives and Remits

Q1: Would a sectoral regulatory definition of AI, included in the supervisory authorities' rulebooks to underpin specific rules and regulatory requirements, help UK financial services firms adopt AI safely and responsibly? If so, what should the definition be?

AFME welcomes the analysis within the DP on the difficulties of accurately defining AI. However, we do not believe that a regulatory definition of AI is required if the current technology-neutral, outcomes-focused approach is maintained, an approach which we strongly support.

In addition, a "sectoral" regulatory definition would not be recommended. Where firms are subject to multiple regulatory definitions of the same term, within or across jurisdictions, the complexity of compliance with those regulations is significantly increased. Firms therefore need the flexibility to define 'AI' within their own organization with reference to the specific risk and regulatory environment to which they are subject.

However, if a regulatory definition is to be considered in the future, we encourage further consultation with the industry to ensure that the definition is accurate (e.g. avoiding the inclusion of other non-AI analytics technologies), future-proof (considering the pace of innovation in the field) and broadly harmonised with other major jurisdictions.

Any definition should focus on the ability of AI systems to perceive, reason, interpret, decide, learn and adapt. For example, we have suggested some amendments to the definition proposed by the European Commission in the draft AI Act[1], as follows:

> "Artificial intelligence (AI) systems are systems that act in the physical or digital world by perceiving their environment through data acquisition, interpreting the collected data, reasoning on the knowledge, or processing the information, derived from this data and identifying the best action(s) to take to achieve the given goal. AI systems adapt themselves or their own algorithms by analysing how the environment is affected by previous actions, knowledge or data."

An alternative approach could be that used by the Bundesbank and BaFin, and cited in the final report of the AI Public-Private Forum[2], whereby characteristics of AI could be listed in order to help firms determine the scope of obligations.[3]

Q2: Are there equally effective approaches to support the safe and responsible adoption of AI that do not rely on a definition? If so, what are they and which approaches are most suitable for UK financial services?

Noting our comments under Q1 above, we suggest that any supervisory focus on the use of AI within financial services should be principles-based and linked to the level of risk posed by an individual AI application and the extent to which this is being addressed by the user (i.e. the firm), rather than a regulation being developed to apply to all uses of AI.

This is on the basis that:

(i)   The risks applicable to the use of AI are also applicable to the use of many other types of technology; and

(ii)   Existing regulation is largely outcomes focused, applying regardless of the technology used (e.g. model risk management, consumer protection, data privacy).

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[1] https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence
[2] https://www.bankofengland.co.uk/research/fintech/ai-public-private-forum
[3] https://www.bundesbank.de/resource/blob/793670/61532e24c3298d8b24d4d15a34f503a8/mL/2021-07-15-ml-konsultationspapier-data.pdf - see Figure 2

Should it emerge that there is a risk posed by firms' use of AI that is not sufficiently addressed through existing regulation and risk management practises, this could then be addressed in a more targeted way. For example, a set of principles could be derived to manage appropriate situations (such as unjust bias) based on the materiality of a use case, which would dictate the extent of the controls that may be required over and above existing control frameworks. This could include implementing new targeted AI-specific compliance or governance measures. However, we believe that firms' existing risk management frameworks will go a long way in addressing many of the risks AI might generate or emphasise, e.g. model risk management, privacy, operational resilience etc. In particular, we note that aspects of these frameworks such as model risk management have been in place for a long time and are comprehensively embedded in the three lines of defence model.

Benefits, risks, and harms of AI

Q3: Which potential benefits and risks should supervisory authorities prioritise?

AFME supports the DP's focus on benefits as well as risks. We believe that better articulation of the potential benefits to the sector and to wider society will help to foster trust in the use of AI. AFME's 2018 paper "Artificial Intelligence Adoption in Capital Markets"[4] called out a number of areas in which benefits can be realised, such as improved client servicing, greater operational efficiency and more robust cybersecurity.

In relation to risks, we refer to our answer to Q2 above, and suggest that a risk-based approach to supervision is most appropriate, noting that the risks related to firms' use of AI will generally be covered by existing outcomes-focused regulation.

If there is to be prioritisation, we note under Q8 below that the use of AI in anti-fraud/anti-financial crime is an area where the industry would like to work closely with supervisory authorities. In this area, there is a particular challenge to balance, on the one hand, the benefits of AI in fighting illegal activities and the associated harms and, on the other, data protection and client protection.

Q4: How are the benefits and risks likely to change as the technology evolves?

We would draw particular attention here to the need for upskilling staff, a situation which can be both a benefit and risk, within both the industry and supervisory authorities, as the technology develops further. For example, there may be uses of AI which currently have a high level of human interaction or 'human in the loop', for which the level will decrease over time as the technology becomes more sophisticated. This will only be possible with an accompanying increase in AI skills.

Q5: Are there any novel challenges specific to the use of AI within financial services that are not covered in this DP?

AFME has no comments in response to this question.

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[4] https://www.afme.eu/Publications/Reports/Details/Artificial-Intelligence-Adoption-in-Capital-Markets

Q6: How could the use of AI impact groups sharing protected characteristics? Also, how can any such impacts be mitigated by either firms and/or the supervisory authorities?

As noted in our answer to Q2 above, the risks applicable to the use of AI are also applicable to the use of many other types of technology, and are also generally covered by existing outcomes-focused regulation. This is equally true of unjust bias, which firms should already have technology-agnostic controls to detect and mitigate, although we appreciate that the nature of AI may amplify the effects of unjust bias if uncontrolled.

It should also be noted that firms face a particular challenge in measuring and mitigating unjust bias. Collecting data on protected characteristics can be very difficult because the data subjects may not feel comfortable disclosing it to their bank, because the decision to ask for the data carries its own reputational weight, and because there may be legal prohibitions or limitations to the collection or use of such data, e.g. GDPR. We encourage the Bank of England and FCA to consider how firms may address this issue using proxies or other methods. However, collecting data on protected characteristics is not a panacea for identifying or correcting unfair bias so this solution should not be relied upon.

Q7: What metrics are most relevant when assessing the benefits and risks of AI in financial services, including as part of an approach that focuses on outcomes?

While we do not feel able at this early stage to comment on the most relevant metrics, we would appreciate dialogue with regulators on where metrics would be considered most helpful.

Regulation

Q8: Are there any other legal requirements or guidance that you consider to be relevant to AI?

We note that there are significant opportunities to use AI in the prevention and detection of financial crime, which often relies on the analysis of large and complex data sets (in the context of transaction monitoring, behavioural analytics etc). Adoption of AI in this area may require a significant change of approach for firms, which would be a significant decision, even where the new approach can be demonstrated to overall be more effective than previous long-established methods. We note the helpful messaging from other regulators globally in this area (for example in the US[5] and Singapore[6]). We would welcome further dialogue and direction on UK supervisory expectations and on how the industry, including technology vendors, can work with authorities to share ideas and expertise.

Q9: Are there any regulatory barriers to the safe and responsible adoption of AI in UK financial services that the supervisory authorities should be aware of, particularly in relation to rules and guidance for which the supervisory authorities have primary responsibility?

We are concerned by the global trend towards data localisation. For example, the proposed European Union Cybersecurity Certification Scheme on Cloud Services (EUCS), which is now expected to include mandatory data localisation in the EU. Data sharing on a cross-border context will be crucial to optimise the efficiency of models. This is particularly clear in, for instance, sustainable finance, fraud prevention or financial crime monitoring, where broader and richer datasets are crucial, including cross-sectoral datasets. We urge the UK regulators not to impose any such restrictions within the UK.

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[5] https://www.fincen.gov/sites/default/files/2018-12/Joint%20Statement%20on%20Innovation%20Statement%20%28Final%2011-30-18%29_508.pdf
[6] https://www.mas.gov.sg/news/speeches/2021/wealth-management-institute-industry-forum-speech

Q10: How could current regulation be clarified with respect to AI?

As stated above in our response to Q2, we do not consider that new regulation is required to address firms' use of AI, as there is already a comprehensive regulatory framework that applies (data protection, model risk management, conduct rules etc). However, as stated in our response to Q8, there are areas where continued dialogue and direction on supervisory expectations would be helpful. Continued dialogue and upskilling will be important to ensure that firms can harness the benefits of the technology while meeting supervisory expectations.

Q11: How could current regulation be simplified, strengthened and/or extended to better encompass AI and address potential risks and harms?

We would like to raise an issue in relation to third party-sourced AI systems, an area which requires greater regulatory attention and action. At the moment, firms wishing to use such products often have limited visibility of how they operate, or the controls in place, due to intellectual property concerns in particular, which creates transparency risks. To address this issue, we would recommend regulatory guidance on AI systems be developed for operation in conjunction with the existing model risk management framework, to encourage independent certification of such systems by accredited bodies (or similar), or minimum standards around information sharing by third-party providers. This will help firms leverage third-party AI solutions and also lead to a robust AI eco-system in partnership with cross-sectoral players.

Q12: Are existing firm governance structures sufficient to encompass AI, and if not, how could they be changed or adapted?

In relation to regulated firms, the Senior Managers and Certification Regime (SMCR) already puts in place comprehensive governance requirements covering all aspects of a firm's business. In relation to AI, or any new technology, firms assess the extent to which existing governance structures are sufficient and make changes accordingly. This will vary by firm. For example, some firms have set up a specific AI governance committee, other have made adjustments to existing technology and data committees to encompass the adoption of AI.

Q13: Could creating a new Prescribed Responsibility for AI to be allocated to a Senior Management Function (SMF) be helpful to enhancing effective governance of AI, and why?

AFME would not be supportive of the creation of a new Prescribed Responsibility for AI. The current list of Prescribed Responsibilities is technology neutral, instead focusing on key obligation such as oversight of risk and compliance functions. We support this approach, believing (as outlined in our response to Q12 above) that specific technologies such as AI should already be covered under a firm's existing governance obligations.

We would also like to take this opportunity to raise concerns with the suggestion in paragraph 4.57 that there should be an expansion of the certification functions to cover individuals involved in a firm's use of AI. Given that we do not support the creation of a sectoral definition of AI or an AI-specific regulation, it would be more difficult to identify all the relevant individuals for such a function than for the relatively narrow certification function for algorithmic trading. The large number of potential individuals affected would likely also be disproportionate to the aims of the measure. Finally, we note that there will shortly be consultation on the effectiveness of the Senior Managers and Certification Regime[7] and suggest that the scope of certification functions should be considered as part of this exercise.

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[7] https://www.gov.uk/government/collections/financial-services-the-edinburgh-reforms

Q14: Would further guidance on how to interpret the 'reasonable steps' element of the SM&CR in an AI context be helpful?

Given our answer to Q13 above, in which we are not supportive of a new Prescribed Responsibility being created for the use of AI, we do not consider that reasonable steps guidance would be required.

Q15: Are there any components of data regulation that are not sufficient to identify, manage, monitor and control the risks associated with AI models? Would there be value in a unified approach to data governance and/or risk management or improvements to the supervisory authorities' data definitions or taxonomies?

We believe, while there are significant benefits to ongoing cooperation between data governance and model risk management functions, including through AI-specific governance committees, a unified approach to data governance and model risk management is not necessary. Model validation typically encompasses a review of the controls implemented around a particular model to make sure they are appropriate to mitigate model risk, including whether or not there are any data quality controls on model inputs. Data quality controls, however, are not considered part of the model control suite with data being subject to its own data governance standards. As noted in the discussion paper, "the current regulatory framework aims to address these specific risk components of the data lifecycle [through] the Basel Committee's Principles for Effective Risk Data Aggregation & Risk Reporting" and we believe the distinct approach to model risk management and data governance is appropriate.

Q16: In relation to the risks identified in Chapter 3, is there more that the supervisory authorities can do to promote safe and beneficial innovation in AI?

As noted in our response to Q8, we would welcome more dialogue with supervisors on the use of AI in the prevention and detection of financial crime.

Q17: Which existing industry standards (if any) are useful when developing, deploying, and/or using AI? Could any particular standards support the safe and responsible adoption of AI in UK financial services?

AFME is supportive of the development of voluntary standards. However, we encourage dialogue with industry before endorsement of particular standards by the authorities, as this may have the effect of seeming to mandate compliance with them as a form of quasi-regulation.

Q18: Are there approaches to AI regulation elsewhere or elements of approaches elsewhere that you think would be worth replicating in the UK to support the supervisory authorities' objectives?

We believe that taking a harmonised approach towards AI at an international level is essential in order not to limit the ability of firms to adopt AI technology developed abroad or develop AI technology that can be used abroad. As a consequence, we strongly encourage UK supervisory authorities to liaise and collaborate with authorities in other countries, particularly the US and the EU. However, as noted in our responses above, we do not believe that a specific regulation of AI is necessary.

<u>Q19: Are there any specific elements or approaches to apply or avoid to facilitate effective competition in the UK financial services sector?</u>

As noted above, we believe that the regulatory approach should continue to be outcomes-based and technology-neutral. Increasing the regulatory burden on firms with a specific legislative focus on AI would be detrimental to innovation within regulated firms and has the potential to widen the innovation gap between regulated and non-regulated entities within financial services. Instead, the focus should be on ensuring that the risks posed by the use of technology within the sector are adequately covered, with the principle being "same risk, same regulation".

We also note the trend towards open finance and data sharing within the wider industry. AFME's 2022 paper "Open Finance and Data Sharing: Building Blocks for a Competitive, Innovative and Secure Framework"[8] sets out our recommendations, but we would particularly draw attention to the need for a level playing field across the spectrum of market participants (both regulated entities and others) in terms of regulation, data sharing obligations and the associated costs and benefits.

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[8] https://www.afme.eu/Portals/0/DispatchFeaturedImages/Open%20Finance%20and%20Data%20Sharing-1.pdf