

BoE and FCA AI Forum Final Report

Key points for financial organisations

February 2022

The Bank of England (**BoE**) and FCA Artificial Intelligence Public-Private Forum (**AIPPF**) published its Final Report on 17 February 2022 setting out key findings, best practice and other discussion points for financial services firms using artificial intelligence (**AI**) and machine learning (**ML**).

This is an important document that provides helpful guidance to firms and reflects expectations of best practice regarding the use of AI.

This update summarises the key points from the Final Report (the full text is available [here](#)).

Background to AIPPF Final Report

- The AIPPF was launched on 12 October 2020 to further dialogue between the public and private sectors on the use of AI in the financial services sector.
- The AIPPF has focused on barriers to AI adoption, challenges, and risks in data, AI model risk and AI governance.
- The Final Report presents the culmination of a year-long dialogue between the AIPPF members.
- The Final Report should not be taken as an indication of future policy by the BoE or FCA, but it is indicative of the best practices that financial services firms should consider adopting and of future regulatory focus.
- We summarise in this note the key findings, best practices, and discussion points arising from the Final Report. We suggest that financial institutions carefully consider the best practice points in particular.
- Our AI Group is experienced in advising financial institutions on the legal, regulatory and ethical issues arising out of the use of AI. Please contact us if you would like to discuss this further.

Governance

Key findings

- **Autonomy:** A key characteristic of AI systems is their capacity for autonomous decision-making. This impacts governance, including effective accountability and responsibility.
- **Continuity:** Existing governance frameworks are good starting points for AI because AI interacts with data governance and operational risk management, for which there should already be governance in place.
- **Diversity:** AI governance requires diversity of skills and perspective and should cover the full range of business functions and units.
- **Proportionality:** AI governance should be aligned with the risk and materiality of the use-case. Firms should leverage and adapt existing governance structures to manage AI including data and risk management frameworks.
- **Transparency:** Transparency and communication are key elements of AI governance.
- **Responsibility:** Standards for AI governance should be set by a central body within firms. Overall responsibility for AI could be held by one or more senior managers, with business areas being accountable for the outputs and adherence to the governance standards.
- **Firm-wide understanding:** Firms should ensure that there is an appropriate level of understanding and awareness of AI's benefits and risks throughout the organisation.
- **Decision making:** A key focus of AI regulation will be on how AI affects decision-making. Firms should watch out for future guidance on the outcomes regulators expect for AI governance and controls.
- **Audit:** An auditing regime could be introduced to foster wider acceptance and trust in AI systems which will put more onus on firms to adopt AI governance.

Best practice for firms

- **Joined-up teams:** Strengthen collaboration of data science and risk teams from the early stages of AI model development cycle while maintaining the ability of risk teams to provide independent challenge and oversight.
- **Firm-wide governance:** Establish a central committee to oversee the development and use of AI. Firms should have AI-specific elements in their risk and privacy frameworks, operational principles and ethical principles.
- **Training:** Provide training and understanding of AI throughout the organisation, particularly to ensure accountability and responsibility of AI.
- **Firm standards:** Share good practice across the organisation, for example, from data management to software development and the use of ML for operational processes.

Future focus

- More training and collaboration between functions is required to address the widening skills gap between business functions and compliance and risk functions. This will require significant investment by firms and firms should be aware that greater collaboration could erode the independence of compliance and risk functions.
- A centralised body responsible for a firm's AI governance policy would provide a more comprehensive and effective approach to governance, covering multiple business areas within the firm. It could also provide a more consistent approach to training and education.
- A multidisciplinary, diverse approach to governance and buy-in from senior leadership will help to create an environment for addressing issues around AI bias, fairness and ethics.

Data

Key findings

- **AI begins with data:** A defining characteristic of AI is the ability to process large volumes of data and exploit often hidden patterns. Many of the benefits and risks from AI can be traced back to the data rather than the AI models, algorithms, and systems.
- **Alternative data:** AI is often used to process large volumes of unstructured or ‘alternative’ data. These may come from numerous sources, eg satellite images or biometrics. Use of alternative data can exacerbate data quality issues, eg data sourced from third-party providers presents additional challenges relating to quality, provenance, and legality.
- **Data quality processes:** Complex data sources and structures used throughout the AI model lifecycle can raise AI-specific challenges. Consistent monitoring and version control, along with comprehensive documentation, will be important for ensuring data quality in terms of its completeness and representativeness.
- **Value:** The value a firm puts on data can influence business models as well as the alignment of its data strategy to its business strategy. Firms should consider pricing of data and expected payoffs from the use of this data in any AI project.
- **Accountability:** Data ownership and accountability structures across an organisation are a key part of overall data governance. The use of AI raises questions on how data ownership and AI ownership should be distinguished and allocated within organisations.
- **Data standards:** There is an increasing need for the development and use of data standards specific to an AI context. Regulatory alignment is needed to help standardise solutions offered by data suppliers.

Best practice for firms

- **Aligned management:** Coordinate data management and strategy with AI management and strategy.
- **Data tracking:** Have processes in place for tracking and measuring data flows within, as well as into and out of, the organisation.
- **Data audits:** Carry out regular data audits and assessments of data usage, including alignment with business objectives.
- **Cost / benefit analysis:** Have a clear assessment of the value of the data held and used, both for specific projects, and to the firm as a whole.
- **Provenance:** Have a clear understanding and documentation of the provenance of data used by AI models, especially in the case of third-party data.
- **New data risks:** Have a clear understanding of the limitations and challenges of using alternative and synthetic data.

Future focus

- One potential method for improving data access and harmonising data pricing would be the use of data marketplaces/exchanges. These could be run by a single firm acting as a data supplier or alternatively as a data intermediary.
- The importance of high quality data is likely to increase. This will result in a need for systematic data quality processes which are transparent, reproducible, auditable and which can be integrated with existing processes.
- The adoption of existing standards (such as BCBS 239) to data cards could help create cross-firm data sets and improve equal access to financial services.

Model risk

Key findings

- **Source of risks:** Most of the risks from using AI models in financial services are not new. What is new is the scale at which AI is beginning to be used, the speed at which AI systems operate and the complexity of the underlying models. These can create new challenges or amplify existing ones. Inadvertent risks can also emerge because there are unknowns with AI, especially when multiple models interact within a network.
- **Model complexity:** Complexity is the key challenge for managing the risks arising from AI models. This includes complexity of the inputs (multiple input layers and dimensions); relationships between variables; the intricacies of the models themselves (e.g. deep learning models); and the outputs, which may be actions, algorithms, unstructured data (e.g. images or text), and/or quantitative.
- **Model explainability:** Explainability is a key issue with AI systems. Approaches to managing the issue should not focus solely on model features and parameters, but also on consumer engagement, and clear communication.
- **Change:** Identifying and managing change in AI models, as well as monitoring and reporting model performance, are key to ensuring models behave as expected.

Best practice for firms

- **Risk management:** Firms should have: (i) a documented and agreed AI review and sign-off process for applications; (ii) an inventory of all AI applications in use and in development; (iii) clearly documented methods and processes for identifying and managing bias in inputs and outputs; (iv) regular assessments of AI application performance; (v) a clear up-to-date explanation of AI risks and mitigation; (vi) documentation and assessment of data used by AI, including data quality and suitability; (vii) an appraisal process for assessing approaches to explainability in internal, regulatory, and consumer contexts.
- **Proportionate risks:** The benefits AI brings should be proportionate to the complexity and risks of the system. Firms should be able to explain why they use a particular AI system rather than a simpler, easier to understand application that produces similar outputs.
- **Consumer focus:** Risk management of AI should include measuring and managing any potential impact on consumers markets. This could involve informing consumers when and where an AI model is involved and provide relevant information.

Future focus

- As the complexity of AI models increases, it will become more important for firms to be prepared when models produce unexpected outcomes, or where outputs deteriorate beyond an acceptable risk tolerance.
- The interconnected nature of networks of AI models could have unpredictable impacts on markets such as flash bubbles or crashes. This reinforces the necessity for robust monitoring frameworks both at the pre-deployment stage and on an ongoing basis.
- Firms' existing change management processes may be unsuited to rapidly changing AI models. These existing processes need to be adapted to account for continually updated AI models, in combination with an appropriate monitoring process.

How we can help you

We have a dedicated AI Group, comprising lawyers across various practice areas and jurisdictions, which regularly advises clients on AI legal, regulatory and ethical issues

Our recent experience includes:

- Advising one of the world's largest developers of biometric technology on a response to the European Commission's draft EU AI Regulation
- Advising a developer of AI technology on its standard form contractual documents
- Advising a financial institution on a dispute arising out of the allocation of proprietary rights to an AI system
- Advising an AI app developer on data privacy issues, including undertaking a data protection impact assessment and liaising with the data protection regulator
- Advising one of the world's largest biopharmaceutical companies on collaboration arrangements and licensing agreements to develop AI models in drug discovery
- Advising a global technology company on a cooperation agreement with Mercedes Benz on autonomous vehicles
- Advising a global telecoms provider on an AI system used to predict healthcare issues for its customers
- Advising one of the world's largest online supermarkets in its development of AI-powered smart platforms and robotics systems
- Advising an Israeli AI unicorn involved in biometric and medical AI products on its expansion and potential IPO

OUR MARKET-LEADING PROFILE

- We are one of the leading law firms in AI:
 - As well as advising numerous clients in this area, we are regularly invited to speak to national governments (including the UK and UAE governments).
 - Our AI Lead, Minesh, is Chair of the Society for Computers and Law (SCL) AI Group (and a former member of the CBI's Working Group on AI)
 - We produce a quarterly newsletter [AI: stay smart](#) which summarises key AI regulatory and policy updates from around the world
- We are at the forefront of developments in AI law and involved in cutting-edge projects. For example, in collaboration with Best Practice AI (comprising a member of the World Economic Forum's Global AI Council), we recently advised on [the world's first AI explainability statement](#), working alongside the UK Information Commissioner's Office.
- Through our Wavelength offering, we have numerous in-house data scientists who have day-to-day experience of developing AI models. We are therefore able to offer both legal advice and a practical insight into AI-related legal issues.

Please get in touch if you have any queries or would like to arrange a discussion or training session with our AI Group



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