

Regulating AI in the financial sector: recent developments and main challenges¹

Executive summary

Financial institutions have been using artificial intelligence (AI) for many years. Three AI use cases are worth highlighting: customer support chatbots; fraud detection, including for purposes of anti-money laundering and combating the financing of terrorism (AML/CFT); and credit and insurance underwriting. Use of AI for chatbots and fraud detection is not new, but the technology has significantly improved in recent years. In terms of credit and insurance underwriting, financial institutions are increasingly using AI for, among others, credit scoring, valuation of collateral and assessing unstructured information from multiple sources to more accurately predict insurance risks and set premiums.

The exponential growth in and accessibility of AI technology is accelerating its use by financial institutions but they seem cautious about generative AI (gen AI). Financial institutions are investing heavily in adopting and implementing AI within their organisations. Much of the increased spending can be attributed to expected wider adoption of gen AI. Financial institutions are experimenting with gen AI to boost operational efficiency and employee productivity. In comparison, gen AI use cases in customer-facing services and high-risk activities are relatively limited. This seems to reflect a cautious approach to gen AI for various reasons, including concerns about customer acceptance and impact; overreliance on third-party model providers; and regulatory uncertainty.

The wider use of AI has the potential to bring transformative benefits to the financial sector but may also exacerbate existing risks. The risks AI poses when used by financial institutions are largely the same risks financial authorities are typically concerned about. These include microprudential risks, such as credit risk, insurance risk, model risk, operational risks, reputational risks; conduct or consumer protection risks; and macroprudential or financial stability risks. Admittedly, AI use may heighten some of the existing risks, such as model risk (eg lack of explainability makes it challenging to assess appropriateness of AI models) and data-related risks (eg privacy, security, bias).

To address AI-related risks, international and national authorities have introduced (cross-) sectoral AI-specific guidance. This guidance outlines policy expectations around common themes. These include reliability/soundness, accountability, transparency, fairness and ethics. More recent guidance has placed increased emphasis on data privacy/protection, safety and security. With the increasing attention on gen AI, sustainability and intellectual property are also being covered in the latest AI guidance. These themes are interconnected and there may be trade-offs between them when developing or upgrading AI guidance. Regardless, the guidance generally allows for a proportionate or risk-based approach to the application of the policy expectations.

The common themes contained in cross-sectoral AI-specific guidance are the same themes emphasised in financial regulations. The common themes in policy expectations are broadly contained in financial regulations covering governance, risk management and consumer protection. This may be the reason why most financial authorities have not issued separate regulations on AI use by financial institutions. Some authorities have issued only high-level principles that reiterate the common themes in

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the cross-sectoral guidance. Other authorities and a few global standard-setting bodies have issued clarifications as to how existing financial regulations apply to AI. So far, among those covered in this paper, only a few authorities have issued regulations specifically addressing AI use by financial institutions.

Nevertheless, AI use by financial institutions may present some unique challenges and hence regulatory or supervisory guidance may be needed in specific areas. Guidance on specific areas can be more important for AI use in financial institutions' core businesses or use cases that present higher risks or significant potential impact on customers. Financial authorities may need to examine existing regulations and, if needed, issue clarifications, revisions or even new regulations in these areas:

- **Governance framework.** The board and senior management of financial institutions are ultimately accountable for their activities, including AI use cases. That said, the use of AI by financial institutions, particularly in their core business activities, would require clear allocation of roles and responsibilities across the entire AI life cycle. Importantly, the governance framework might need to specify the role of human intervention to minimise harmful outcomes from AI systems.
- **AI expertise and skills.** A wider adoption of AI without the corresponding expertise and skills could result in insufficient understanding and ineffective management of the risks to financial institutions and the financial system. Financial authorities may therefore consider clarifying their expectations regarding the expertise and skills envisaged to be in place for financial institutions that plan on expanding AI use in their core business activities.
- **Model risk management.** Heightened model risk can be caused by lack of explainability of AI models. When model risk management guidance is in place, authorities might find it helpful to communicate their explainability-related expectations and provide guidance on the key qualities to consider when selecting explainability techniques and assessing their effectiveness.
- **Data governance and management.** Use of AI by financial institutions can lead to various data-related issues. While many of the relevant elements of data governance/management are captured in existing regulations (eg those for model risk, consumer privacy and information security), financial authorities may want to assess whether these are enough or need strengthening, or whether there is a need to issue guidance that addresses any AI data governance and management-related issues.
- **New/non-traditional players and new business models/arrangements.** To avoid potential regulatory gaps, regulations relevant to new/non-traditional players providing financial services would need to be assessed to determine whether they require adjustments to take account of the cross-sectoral expectations on the use of AI. A similar regulatory assessment might be needed with respect to multi-layer arrangements in providing financial services (eg Banking-as-a-Service) involving AI that may make it challenging for financial authorities to attribute accountability to various players in the ecosystem.
- **Regulatory perimeter – third parties.** The concentration of cloud and AI service providers to a few large global technology firms strengthens the argument for putting in place direct oversight frameworks for these service providers depending on available legal authority. Some jurisdictions have moved in this direction, but the prevalent approach is still relying on financial institutions to manage risks from these third-party relationships.

The presence of various AI definitions across jurisdictions needs to be addressed by international collaboration. The lack of a globally accepted definition of AI prevents a better understanding of AI use cases in the global financial sector and the identification of specific areas where risks may be heightened. As such, international public-private collaborative efforts can be geared towards agreeing on a lexicon for AI and continue working towards regulatory and supervisory frameworks that can adapt to the rapid advancements in AI technology.