AIFS0002

Written evidence submitted by AI & Partners

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

AI is transforming financial services across retail banking, investment banking, insurance, and pensions, with varying levels of adoption. Retail banking leverages AI for fraud detection, chatbots, and personalized financial advice. Investment banking utilizes AI-driven trading algorithms, risk analysis, and automated compliance checks. Insurers use AI for underwriting, claims processing, and customer service, while pensions integrate AI for portfolio management and risk assessment.

Over the next decade, AI adoption is expected to deepen, with fintech firms leading the way due to their agility and data-centric models. AI-driven automation will enhance operational efficiency, while generative AI (GenAI) could streamline customer interactions, regulatory reporting, and financial modelling, as extensively covered by the Institute of Directors (IoD) Finance and FinTech Group[1]. Algorithmic trading, already dominant in financial markets, is likely to expand further, increasing efficiency but also posing systemic risks.

Financial services may be adopting AI faster than other industries due to competitive pressures and regulatory support. However, concerns around algorithmic bias, cybersecurity, and third-party dependencies will need to be addressed. Future developments could include AI-powered central bank digital currencies (CBDCs), AI-driven financial crime detection, and more sophisticated risk assessment models. The UK's financial sector is well-placed to capitalize on these trends, provided that regulatory frameworks evolve accordingly.

To what extent can AI improve productivity in financial services?

AI has significant potential to enhance productivity in financial services by automating routine tasks, reducing operational costs, and improving decision-making. Key areas of productivity gains include customer service automation through AI-powered chatbots, fraud detection and risk management via machine learning, and AI-enhanced financial forecasting.

Transactional AI applications, such as real-time credit risk assessment and AI-driven compliance monitoring, reduce manual intervention, enhancing speed and accuracy. Generative AI could further streamline regulatory reporting, contract analysis, and investment strategies, driving efficiency gains.

However, barriers to adoption persist, including legacy infrastructure, regulatory uncertainties, and data privacy concerns. While fintech firms may find it easier to integrate AI due to their digital-first models, traditional financial institutions face challenges in upgrading legacy systems.

Certain areas, such as AI-driven anti-money laundering (AML) processes, present minimal risk and could be adopted rapidly. However, AI-driven decision-making in lending and insurance underwriting must be carefully monitored to prevent bias. Job displacement is another consideration, particularly in roles involving manual data processing, customer service, and compliance.

The UK is well-positioned to leverage AI in financial services, benefiting from a strong regulatory framework and access to AI talent. However, ensuring responsible AI use and robust governance mechanisms will be key to maintaining competitiveness.

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[1] https://www.iod.com/special-interest-groups/finance-and-fintech/

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

AI introduces both systemic and operational risks to financial stability. One key risk is increased cyber vulnerabilities, as AI-driven financial systems become prime targets for cyberattacks. AI also exacerbates risks related to third-party dependencies, particularly when financial institutions rely on a few dominant AI providers.

Model complexity is another concern. AI models, particularly deep learning systems, can be opaque, making it difficult for financial regulators to assess their decision-making processes. This lack of transparency increases risks related to hidden biases, erroneous predictions, and unintended market distortions.

AI-driven trading algorithms also introduce risks of herding behavior, where multiple financial institutions act on similar AI-generated signals, leading to market instability. Additionally, the emergence of generative AI in financial services poses risks of misinformation and manipulation, particularly if trading strategies rely on unverified social media data.

Mitigation strategies should include stress-testing AI models, enhancing transparency in AI-driven decision-making, and imposing governance frameworks to prevent AI-related systemic risks. Financial regulators should establish clear guidelines on AI accountability, ensuring that financial institutions maintain robust risk management protocols. Continuous monitoring and scenario planning will be critical to ensuring AI enhances, rather than destabilizes, financial markets.

What are the benefits and risks to consumers arising from AI, particularly for vulnerable consumers?

AI offers significant benefits to financial consumers, including improved fraud detection, personalized financial recommendations, and more efficient customer service. AI can help identify vulnerable consumers by analyzing spending patterns, detecting financial distress early, and offering tailored interventions such as repayment plans or financial literacy resources.

However, AI also presents risks, particularly related to bias in credit decisions, insurance underwriting, and fraud detection. If AI models are trained on biased datasets, they may inadvertently reinforce discriminatory lending or pricing practices, disproportionately affecting marginalized groups. The opacity of AI decision-making further complicates efforts to ensure fairness and transparency.

Data protection is another major concern. AI-driven financial services require extensive data collection, raising issues around consumer privacy and consent. Without stringent safeguards, sensitive financial data could be misused or exploited.

To mitigate these risks, financial institutions must ensure robust AI governance, including bias audits, explainability measures, and strict data protection protocols. Regulatory oversight should focus on ensuring AI-driven financial services remain accessible, fair, and transparent. The UK could lead in developing ethical AI standards, ensuring that AI benefits all consumers while safeguarding the most vulnerable.

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?

The UK government and financial regulators face the challenge of fostering AI innovation while ensuring responsible deployment. Striking this balance requires a regulatory framework that encourages AI adoption but incorporates safeguards to prevent misuse.

Existing financial regulations may need updates to address AI-specific challenges, such as algorithmic bias, explainability, and data privacy. Rather than imposing overly restrictive rules, regulators should adopt a risk-based approach, where AI applications with higher potential impact (e.g., algorithmic trading, AI-driven lending decisions) face stricter scrutiny.

Regulators must also enhance their AI expertise, equipping supervisory bodies with the necessary technical knowledge to assess AI systems effectively. The Financial Conduct Authority (FCA) and Bank of England could collaborate with AI experts to develop best practices for AI governance in financial services.

Ensuring interoperability with international AI regulations is another priority. The UK should align its AI governance framework with global standards to maintain competitiveness in financial services. Regulatory sandboxes, where firms can test AI applications under controlled conditions, can facilitate innovation while ensuring compliance.

A collaborative approach, involving financial institutions, regulators, and AI developers, will be essential. By fostering responsible AI adoption, the UK can position itself as a global leader in AI-driven financial services while protecting financial stability and consumer interests.

February 2025