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Written evidence submitted by Innovate Finance

Artificial Intelligence: Unlocking the potential of UK Financial Services and empowering consumers

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About Innovate Finance

Innovate Finance is the independent industry body that represents and advances the global FinTech community in the UK. Innovate Finance's mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators.

The UK FinTech sector encompasses businesses from seed-stage start-ups to global financial institutions, illustrating the change that is occurring across the financial services industry. Since its inception in the era following the Global Financial Crisis of 2008, FinTech has been synonymous with delivering transparency, innovation and inclusivity to financial services. As well as creating new businesses and new jobs, it has fundamentally changed the way in which consumers and businesses access finance.

The UK stands at a pivotal juncture. As we witness the rapid evolution of artificial intelligence (AI), its potential to reshape the financial services landscape is clear. However, if the UK is to fully capitalise on this transformative technology, we must address the challenges and seize the opportunities with a clear vision and a collaborative approach. Drawing inspiration from the Prime Minister's vision for a tech-enabled future, and as also articulated in the Chancellor's recent Mansion House speech, we must foster an environment that encourages innovation while safeguarding stability and consumer trust.

Executive Summary

AI is a broad description of technology that can mimic human intelligence. Examples of AI include digital assistants, search engines, social media, analytic engines and robots. Machine learning (ML) is a subset of AI that allows machines to learn and improve from experience. Deep learning is a subset of ML that uses artificial neural networks to process and analyse information.

Financial services was one of the first sectors to adopt Artificial Intelligence (AI) and Machine Learning (ML) technologies in its work, with applications including fraud detection and automated decision making. The most recent Bank of England industry survey of AI and ML survey[1] show that:

[1] https://www.bankofengland.co.uk/report/2024/artificial-intelligence-in-uk-financial-services-2024

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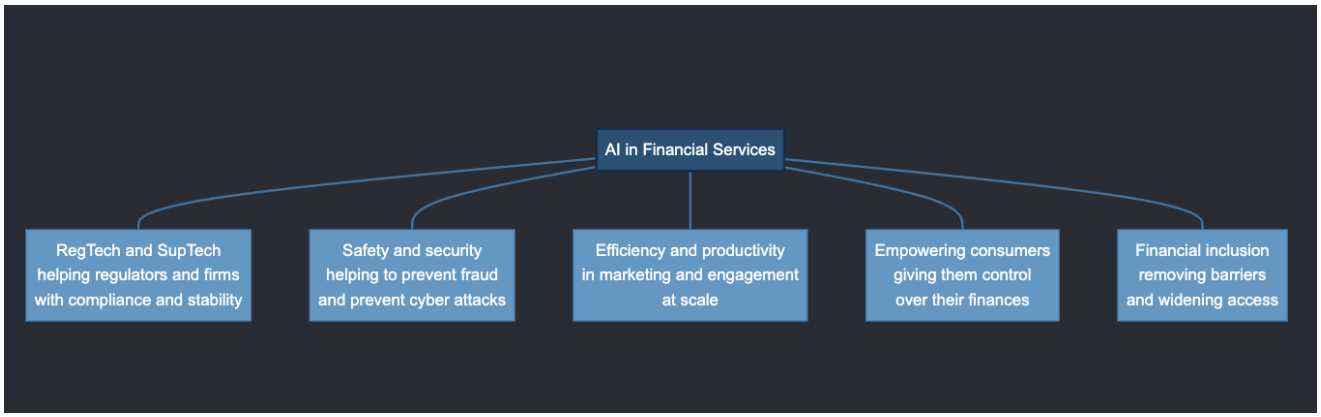
- 75% of firms are already using artificial intelligence (AI), with a further 10% planning to use AI over the next three years. This has grown from 2022 where it was 58% and 14% respectively.
- Foundation models now form 17% of all AI use cases - supporting anecdotal evidence for the rapid adoption of this complex type of machine learning.
- The highest perceived current benefits are in data and analytical insights, anti-money laundering (AML) and combating fraud, and cybersecurity.



The opportunity

A substantial proportion of financial services firms in the UK have already embraced AI, indicating a strong momentum towards its integration. Currently, 75% of firms are utilising AI in their operations, with an additional 10% actively planning to implement AI within the next three years.[1] This high rate of adoption signifies a widespread recognition of AI's potential to reshape the industry. Notably, this figure represents a significant surge from the 58% of firms using AI in 2022, highlighting the accelerating pace at which AI is being incorporated into financial services.[1] The fact that foundation models, which are more complex AI technologies, constitute 17% of all AI use cases further suggests a move towards more sophisticated applications within the sector. This rapid increase in AI adoption, coupled with the deployment of advanced models, demonstrates a growing understanding and confidence in AI's capabilities among financial institutions. The initial willingness to explore AI in 2022 has seemingly translated into active integration into core operations, driven by the observed benefits and a strategic commitment to leveraging its potential.

AI is being deployed across a diverse range of business functions within UK financial services. Operations and IT represent the largest area of AI application,

accounting for approximately 22% of all use cases. This is followed by retail banking at 11% and general insurance at 10%.[1] These figures indicate an initial concentration of AI implementation in foundational technological infrastructure and key customer-facing areas. The most commonly reported specific use cases include the optimisation of internal processes (41%), bolstering cybersecurity (37%), and enhancing fraud detection mechanisms (33%).[1] The prevalence of these applications suggests that the primary focus of early AI adoption is on enhancing operational efficiency, strengthening security measures, and improving risk management capabilities, which are critical priorities within the regulated financial services environment. The prioritisation of AI in these fundamental areas implies that firms are aiming to address core operational and security challenges, likely seeking tangible improvements and risk mitigation before potentially expanding into more outwardly revenue-generating applications.

The adoption of AI within the UK financial services sector is projected to yield significant macroeconomic advantages, particularly in terms of increased productivity. Forecasts indicate a potential annual rise in labour productivity of up to 1.5 percentage points as a direct result of AI implementation in the financial sector[2].This substantial anticipated increase underscores AI's crucial role in driving economic efficiency within the industry. Furthermore, generative AI, a subset of AI focused on creating new content, is also expected to make considerable contributions to the UK's economic growth. For instance, it is estimated that generative AI could enable the insurance sector alone to add up to £59 billion to the UK's annual Gross Domestic Product (GDP) by the year 2038[3]. When considering the combined impact across banking, capital markets, and insurance, the potential annual GDP contribution from generative AI could reach as high as £163 billion by 2038.[3] These projections highlight the long-term transformative economic potential of generative AI across key segments of the financial services industry. The broader UK AI market is already substantial, with a current valuation exceeding £21 billion, and is projected to experience exponential

[2] https://ibsintelligence.com/ibsi-news/is-ais-transformative-impact-on-uk-financial-services-a-blessing-or-a-risk/

[3] https://www.insurancetimes.co.uk/news/generative-ai-could-enable-71-of-working-hours-in-the-insurance-sector/1454792.article#:~:text=Generative%20artificial%20intelligence%20(AI)%20could,annual%20UK%20GDP%20by%202038.

growth, reaching an estimated £1 trillion by 2035. This immense growth trajectory demonstrates the significant economic opportunities associated with the wider AI landscape in the UK, with financial services playing a vital role as both a contributor and a beneficiary. The predicted productivity gains and substantial GDP contributions from AI within UK financial services underscore its potential as a significant engine for national economic growth. This highlights the strategic importance of fostering AI adoption within the sector to achieve broader economic objectives for the UK. The robust and expanding UK AI market provides a fertile ground for the development and deployment of AI solutions, creating a supportive ecosystem for financial services firms seeking to leverage this transformative technology.

For consumers in the UK, the integration of AI into financial services offers a multitude of benefits, leading to more tailored and effective experiences. AI's ability to analyse vast amounts of individual data enables the provision of personalised financial services. For example, AI can tailor financial products to an individual's specific life stage, spending habits, and future financial goals, resulting in more relevant and potentially more beneficial offerings[4]. Furthermore, AI can create personalised investment portfolios by analysing real-time market data, individual risk profiles, and long-term financial objectives, offering a more customised and potentially more effective approach to investment management.[4] AI-driven budgeting applications and financial planning platforms further empower consumers by analysing their spending patterns and providing tailored recommendations for better financial management[5].

AI also plays a critical role in enhancing the security of consumers' finances through improved fraud detection and cybersecurity measures. Currently, the most significant perceived benefits of AI in financial services are in areas such as anti-money laundering (AML), combating fraud, and strengthening cybersecurity defenses.[1] This indicates that AI is already having a tangible positive impact on safeguarding consumers' financial assets and personal data. A concrete example of this is Metro Bank's launch of an AI-powered scam detection tool, which allows customers to easily check the legitimacy of suspicious communications via

[4] https://www.womblebonddickinson.com/uk/insights/articles-and-briefings/what-future-ai-financial-services-looks

[5] https://ibsintelligence.com/ibsi-news/is-ais-transformative-impact-on-uk-financial-services-a-blessing-or-a-risk/

WhatsApp, directly preventing them from becoming victims of fraud and reducing potential financial losses.[11]

Moreover, AI-powered tools are enhancing the accessibility and convenience of financial services for consumers across the UK. AI-powered chatbots and virtual assistants offer instant, round-the-clock responses to customer inquiries, providing immediate support and information at any time, thereby improving customer service and reducing wait times.[4] Additionally, robo-advisers utilise AI to provide automated investment management services at a lower cost compared to traditional financial advisors, making investment advice more accessible to a broader range of consumers, particularly those who may find traditional services cost-prohibitive.[5] The ability of AI to personalise financial services has the potential to significantly improve financial outcomes for consumers by offering advice and products that are more closely aligned with their unique needs and circumstances. The application of AI in bolstering fraud detection and cybersecurity directly addresses a primary concern for consumers regarding the safety of their finances. The 24/7 availability of AI-driven customer support and the reduced cost of robo-advice contribute to greater financial inclusion by making services more accessible to a wider demographic, irrespective of their location or financial standing.

For businesses within the UK financial services sector, AI offers a pathway to significant operational improvements and new opportunities. The industry anticipates substantial gains in operational efficiency, productivity, and a reduction in the overall cost base within the next three years as a result of AI adoption.[1] AI algorithms can automate numerous repetitive tasks, such as processing loan applications and generating financial reports, thereby freeing up human employees to concentrate on more complex and strategic activities[6]. A compelling case study illustrates this, where AI-assisted case management led to a 30-50% reduction in the time taken to handle customer complaints[7]. This increase in efficiency directly contributes to lower operational expenditures for financial institutions. Beyond streamlining existing processes, AI empowers businesses to innovate and develop novel, more sophisticated products and services. For instance, AI enables financial institutions to offer a greater degree of personalisation in their product offerings, catering more precisely to individual

[6] https://www.365finance.co.uk/insights/ai-in-financial-services-the-pros-and-cons/
[7] https://fintechmagazine.com/articles/uk-finance-ai-spend-to-hit-record-levels-in-2025

customer needs and preferences.[4] Generative AI can also be leveraged to create personalised educational content and make complex investment advice more readily understandable and accessible to a wider audience.[13]

Furthermore, AI significantly enhances the capabilities of financial businesses in managing risks and ensuring compliance with increasingly complex regulations. AI technology excels at identifying anomalies within financial data, leading to improved fraud detection and more accurate risk assessment[6]. This strengthens the overall security and stability of financial institutions. AI tools are also proving invaluable in assisting firms with navigating the intricate landscape of regulatory compliance, helping them to interpret and adapt to evolving legal requirements.[5] The anticipated improvements in operational efficiency, productivity, and cost reduction indicate that AI is considered a vital instrument for optimising business operations and enhancing profitability within the financial services sector. The development of personalised products and services through AI can provide a significant competitive edge, enabling financial businesses to attract and retain customers with more relevant and tailored offerings. The enhanced risk management and compliance capabilities afforded by AI not only safeguard the business but also contribute to the broader stability and integrity of the financial system.

An example of an AI implementation to fight fraud is Metro Bank's deployment of its AI Scam Checker. This tool utilises AI to analyse images of suspicious communications sent by customers via WhatsApp, providing a rapid assessment of their legitimacy[8]. The tool's added feature of automatically reporting identified scams to the relevant authorities further contributes to the collective fight against financial crime.

The adoption of AI presents a wealth of opportunities for the UK financial services sector. Consumers stand to gain from more personalised services, enhanced protection against fraud, and improved accessibility to financial products and advice. Businesses can leverage AI to achieve greater operational efficiency, reduce costs, foster innovation in their offerings, and strengthen their risk management and compliance capabilities. Moreover, the widespread integration of AI within financial services is projected to contribute significantly to the growth

[8] https://www.morningstar.co.uk/uk/news/AN_1744015813763426600/metro-bank-launches-ai-powered-scam-detection-tool.aspx

of the wider UK economy through substantial productivity gains and the expansion of the AI market.

Agentic AI

Much of the promise of the application of AI from a productivity perspective revolves around having cost-effective assistance for a variety of tasks through so-called agentic AI. From a retail financial services point of view, agentic AI can ensure that affordable financial advice or targeted support[9]. Its suitability for customers in financial services stems from a data-rich landscape, not least with Open Banking providing standardised data and secure access via APIs, as well as the technological attributes including contextual understanding, memory, and multi-tasking abilities.

Agentic AI can be characterised by the following capabilities[10]:

- Autonomy: The ability to make independent decisions, execute tasks, and refine strategies without requiring constant human intervention.
- Adaptability: Learning from feedback loops, market fluctuations, and new data to refine predictions and improve decision-making over time.
- Coordination: Interacting with other AI agents, APIs, and financial databases to execute comprehensive workflows, such as portfolio rebalancing or fraud detection.

Examples of the utility of agentic AI include automatically ensuring customers use the optimal payment method for any purchase and automating financial well being, to optimise financial management. AI can provide powerful tools to tackle money laundering and financial crime. And it can achieve regulatory outcomes more effectively and ensure cheaper, better compliance.

[9] https://www.fca.org.uk/news/press-releases/millions-people-could-get-more-support-their-pensions-under-new-proposals

[10] https://www.moodys.com/web/en/us/creditview/blog/agentic-ai-in-financial-services.html

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Agentic AI Use Cases	Wealth Management /Retail Banking	Corporate Banking	Institutional Investor	Insurance
Personalized Offers	• Adaptive financial advice • Real-time savings goal optimization	• Custom lending offers • Optimized loan structures • Dynamic pricing	• Dynamic investment portfolios • Bespoke investment plans	• Tailored insurance policies • Dynamic loyalty offers
Customer Engagement	• Virtual financial assistants • Tax and retirement planning agents	• Financial planning agents • Adaptive tax planning	• Custom research insights • Real-time market alerts	• AI-driven query handling • Proactive policy updates, renewals
Operational Efficiency	• Automate routine tasks with context-aware workflows	• Streamlined complex operations • Invoice processing, reconciliations	• Automated fund review reports	• Adaptive claim management
Risk and Underwriting	• Real-time risk profiling • Predictive default modelling	• Real-time risk assessment	• Diversification risk management • Real-time hedging strategies	• Real-time underwriting models
Financial Forecasting	• Future savings, expense insights	• Live cashflow forecasts	• Dynamic investment timing strategies • Investment performance insights	• Predicting claim reserves • Automated premium calculations
KYC / Onboarding	• Adaptive identity verification • Real-time AML compliance	• Adaptive onboarding workflows • Real-time sanctions monitoring	• Real-time due diligence • Investor suitability analysis	• Adaptive identity verification
Fraud Prevention	• Contextual-based suspicious activity detection	• Coprorate fraud detection	• Insider trading detection • Automated regulatory compliance	• Claim fraud detection with contextual analysis

[11]

The risk: What happens if the UK is not a leader in deploying these technologies?

Unlike the technologies of five or ten years ago, the next wave of technologies such as AI and tokenisation will be geographically homogeneous in nature, and will be built in any one country and easily rolled out internationally. This means founders and investors will be able to be more selective about where they invest, and the UK will have to redouble its efforts to capture new investment for the next technology age.

We have, for example, already seen in the wider Tech sector a French AI company barely a year old raise $1bn in the last 12 months.

How do we unlock the opportunities in the UK?

The UK financial regulatory approach to AI is already a competitive and proportionate model, which stands in stark contrast to the EU approach of greater prescription, where financial services are treated as 'high risk' under the AI Act.

Under the Government's response to the AI White Paper, *A pro-innovation approach to AI regulation*[12], The UK adopted a sectoral approach to AI regulation -

[11] https://www.citigroup.com/global/insights/agentic-ai
[12] https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper

which we strongly believe was the right perspective on regulation. In financial services, the FCA has also taken the right approach of applying existing rules, using the principle of same risk, same outcome, rather than developing new rules for AI. In their response to the regulation of AI, they mapped their existing rulebook to the principles Government had set, recognising that currently, no new regulation is needed to manage risks. This approach from the FCA is right. Unlike any other sector, Financial Services has the Consumer Duty[13] - a requirement on all service providers to ensure the best outcome for each consumer. This principles based approach and wider FS regulatory protection already provides a high level of protection for AI in financial services. Moreover, financial services tend to use established, lower risk AI models - financial services do not raise the type of existential questions that work on super intelligence, foundation models and general AI can raise.

The question is therefore not 'how can regulators further regulate the risks of AI in financial services', but rather 'how can regulators unlock the benefits of AI in financial services', and in particular harness solutions that can achieve better regulatory outcomes, in areas like financial inclusion, stability and regulatory compliance.

We believe this regulatory approach should be:

- No new rules needed. This matches the FCA's approach.
- Remove barriers to opportunities: review the existing rule book
- Identify how AI can deliver better regulatory outcomes: for example in areas like financial promotions and market stability

We recommend three priority areas for the UK Government and financial services regulators:

1. Build a full UK Tech Stack: Unlocking the opportunity of AI requires the development of a number of other layers of UK financial services technology: smart data, Blockchain, fraud data sharing and digital ID. Together these can build a world beating UK Tech stack - a sling shot not only for Financial Services but also productivity and growth across the whole UK economy. Open finance and smart data, building on open banking, is critical to AI, providing access to quality data and a trust framework that sets very clear consumer consent requirements and ensure consumers have access and can use their

[13] https://www.fca.org.uk/firms/consumer-duty

data. Smart data rules put data back in the hands of the individual.Without this data - and power - will be held by large data holder organisations, with increasingly concentrated power. Alongside this, AI agents and automation will increasingly run transactions via digital assets and programmable contracts which operate on the blockchain; and AI transactions will use stablecoins for payment. Developing a competitive UK regime and market for blockchain is critical to releasing UK AI ambitions. Furthermore, data sharing to combat fraud and a digital ID will provide the security underpinnings for our AI enabled economy.

2. A review of AI enabling regulation. Alongside the wider economic priorities for AI identified in the Government's AI strategy, e.g. expanding UK data centres, in financial services we specifically need a regulatory review to identify regulatory rules that stand in the way of AI solutions and an ongoing process similar to the current advice/ guidance review. This should also look at AI enabled regulatory tools - including stability mechanisms and financial promotions.

3. Build consumer and industry confidence. At present, firms in the UK remain reluctant to fully commit to AI solutions, due to a concern about both public reaction and regulatory approach. Firms are nervous, and the regulators, Government and Parliament can help by providing a clearer approach, providing more confidence and backing for AI, and for regulators, providing guidance and support.

Definitions of AI

Term	Explanation	Relationship to AI
Artificial Intelligence (AI)	The broad idea of making computers or machines perform tasks that typically require human intelligence, like learning, reasoning, or problem-solving.	The entire field or umbrella term. All the other terms in this table fall under AI.

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Machine Learning (ML)	A way to achieve AI. Instead of programming exact rules, computers are 'trained' using large amounts of data to find patterns and make decisions or predictions on their own.	A major subset or approach within AI. It's how many AI systems learn.
Deep Learning (DL)	A specific, more complex type of Machine Learning that uses structures inspired by the human brain (called neural networks) with many layers to learn intricate patterns from vast amounts of data.	A specialised technique within Machine Learning. It powers many modern AI breakthroughs.
Generative AI	A type of AI (often using Deep Learning) specifically designed to create new, original content, such as text, images, music, or computer code, based on the data it was trained on.	A subset of AI/ML focused specifically on content creation.
Foundation Model	Very large, powerful AI models (often Large Language Models or LLMs) trained on enormous amounts of general data. They serve as a flexible 'base' or 'foundation' that can be adapted (fine-tuned) for many different specific AI tasks.	A type of large-scale ML model (often using DL) that provides the core capability for many different AI tools, especially advanced Generative AI.
Small Language Model (SLM)	A type of AI language model that is significantly smaller and more efficient than large foundation models (LLMs). They are trained on less data, require less computing power, and are often optimised for specific tasks or to run on devices like smartphones. One application could be trained on the FCA's rule books to provide agentic AI services	A more compact and efficient type of language model, often related to or derived from larger models. Used for specific applications or on-device AI.

	for compliance staff.	
Narrow AI (Weak AI)	AI systems designed and trained for one specific task or a limited range of tasks. They operate within predefined constraints and can't perform tasks outside their specialisation.	Describes the capability level of almost all AI we use today. It's AI focused on a specific job.
Artificial General Intelligence (AGI) (or Strong AI)	A hypothetical future type of AI that would have the intellectual capacity of a human being – able to understand, learn, and apply knowledge across a wide range of tasks, exhibiting consciousness and self-awareness.	A future goal or hypothetical level of AI capability, far beyond current 'Narrow AI'.

Using the above definitions, currently the FS sector mainly uses Narrow AI - with the technology being focused on a specific task or activity. These applications include:

- Artificial narrow intelligence - data analytics;
- conversational - chatbots.
- Generative AI: insights and new, tailored content

The main focus of our work in this paper concerns Narrow AI; however, as the technology and associated deployment increases there will be more use of General AI agents which have the ability to make decisions for you. This has tremendous potential for financial services firms and their customers given the scale of personalisation services that can be delivered cost-effectively.

Regulators are increasingly aware of the concentration risk the increased deployment of AI poses. The Bank of England has already been leading the work, with the FCA, on Operational Resilience for Critical Third Parties[14] - such as cloud

[14] https://www.bankofengland.co.uk/prudential-regulation/publication/2024/november/operational-resilience-critical-third-parties-to-the-uk-financial-sector-policy-statement

service providers, and the Bank's recent Financial Stability in Focus[15], a report giving the Financial Policy Committees view on various topics, also looks at concentration risk in relation to financial stability.

How is FinTech using AI now?

Below, we have included some case studies from our members on how they are currently utilising AI technologies.

Bonsai Smart Wealth

Bonsai exists to make high-quality financial advice and money management accessible to people who would otherwise go without it. Traditionally, financial advice has been expensive and reserved for the wealthy, creating an enormous and every-growing advice gap. Bonsai's AI changes that by building a full picture of a user's income, spending, savings, investments and goals through secure, conversational onboarding. From there, it generates a personalised, tax-efficient plan and gives people real-time recommendations on how to make smarter decisions with their money - from which account to contribute to first, to whether they can afford to retire early.

The real power of this technology lies in its ability to offer *relevant, instant, and scalable support*. A user might ask, "Am I saving enough for a house?" or "Should I use my ISA or pension?" and receive clear, personalised advice in seconds. Behind the scenes, the AI continuously monitors changes in income, behaviour, and market conditions - adapting the user's plan accordingly. This allows Bonsai to provide financial support that's not just reactive, but proactive - helping everyday people stay on track with their goals and take control of their financial future, with no jargon or judgement.

Bonsai is on a mission to completely change the financial advice landscape and significantly improve the financial lives for millions of people in the UK.

YouLend

YouLend are on a mission to empower businesses and fuel economic growth. With YouLend's AI-driven decision-making model, they've modernised the traditional underwriting process, making it faster and more precise than ever before. This innovation is unlocking capital for underserved communities that have long been overlooked, and the results so far have been remarkable. For example, we've concluded in partnership with Experian that YouLend is twice as likely to approve financing for female-owned businesses compared to the UK average. To date,

[15] https://www.bankofengland.co.uk/financial-stability-in-focus/2025/april-2025

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YouLend has facilitated more than £7 billion in SME revenue worldwide together with our embedded finance partners, creating an average of one new job for every small business funded.

Thought Machine - Core Banking Technology

Thought Machine is a UK-headquartered multinational banking technology company that builds core and payment technology for enterprise, mid-tier, and fintech banks worldwide. Last valued at $2.7bn and employing more than 500 people globally, Thought Machine has built its reputation as a modern, cloud-native, 'foundational' technology provider that all banks require to truly innovate.

The company's technology has allowed banks to harness new capabilities, particularly artificial intelligence, big data, hyper-personalisation, and more. In contrast, legacy core technology tends to be closed, batch-oriented (as opposed to in real-time), and siloed due to 'spaghetti-like' IT stacks developed within the bank over time.

Thought Machine's real-time platform and API-first architecture are essential precursors to AI adoption in banking. Banks use Thought Machine's real-time technology to feed into AI-based systems for various use cases, such as:

- analysing market trends, customer data, and transaction patterns to enable banks to personalise financial products, improving customer satisfaction and engagement;
- voice and text-based banking interfaces directly with the core, offering seamless customer experiences through natural language interactions, and;
- real-time behavioural analytics identify unusual patterns that may indicate financial crime (e.g. fraud) and trigger alerts for further investigation.

A number of other examples where FinTech is utilising AI and other associated technologies can be found in the following reports we have produced:

- Increasing Productivity: impact report: https://ww2.innovatefinance.com/wp-content/uploads/2024/10/the-uk-fintech-impact-report-2024.pdf

- Net Zero report with Cap Gemini: https://www.innovatefinance.com/reports/reaching-net-zero-the-role-of-fintech-as-essential-catalyst-and-transformation-agent/
- Cost of living - empowering consumers and financial inclusion https://www.innovatefinance.com/reports/fintech-helping-with-the-cost-of-living/

The financial services sector, particularly FinTech, is already leveraging AI across a diverse spectrum of applications. Currently, we see AI being deployed in areas such as fraud detection, customer service through chatbots, algorithmic trading, and credit scoring. FinTech firms, unburdened by legacy systems, are often at the forefront of this adoption. For instance, a number of FinTechs utilise sophisticated machine learning algorithms to analyse intricate transaction patterns and identify anomalies that may indicate suspicious activity, significantly reducing fraud rates and enhancing customer security. Algorithmic trading, driven by AI, now accounts for a substantial percentage of market activity, with about 60-75 percent of overall trading volume in the U.S. equity market, European financial markets, and major Asian capital generated through algorithmic trading[16]. This demonstrates the speed, efficiency, and analytical power AI can bring to complex trading environments.

Beyond these core applications, AI is also being used to personalise financial products and services. Robo-advisors, powered by advanced AI algorithms, offer tailored investment advice based on individual risk profiles, financial goals, and market conditions. This democratises access to sophisticated financial advice, making it more affordable and accessible to a wider audience, including those who may have previously been excluded from traditional wealth management services. However, the adoption rate varies across different sectors. Retail banking and investment management are witnessing higher penetration rates compared to insurance, which is still catching up. This is likely due to the more data-intensive nature of retail banking and the readily available, structured datasets that are essential for training effective AI models.

In the crucial area of anti-money laundering (AML), AI is being used to analyse vast and complex datasets to identify subtle suspicious transactions and intricate patterns that may indicate illicit activity. This significantly enhances the efficiency and effectiveness of AML compliance, reducing the burden on human analysts who are often overwhelmed by the sheer volume of data. Furthermore, AI is being

[16] https://www.quantifiedstrategies.com/what-percentage-of-trading-is-algorithmic/

used to improve customer onboarding processes by automating identity verification and risk assessment. This not only speeds up the onboarding process but also enhances the overall customer experience by providing a seamless and efficient digital journey.

Looking ahead, FinTechs foresee a plethora of transformative future use cases for AI. The opportunity lies in leveraging AI to create more personalised, efficient, and secure financial services that are tailored to the unique needs of each individual.

Last year Innovate Finance members explored what the future of digital payment wallets will look like. This identified value add services which will be AI powered:

Value add services and advice	Budgeting information and financial management advice - combined view of accounts
	Advice on payment method/selection to offer best outcome for consumer: e.g. 'for this purchase using X method would provide you with Y protection if there is a problem with the purchase'. Or 'using Y is the most cost effective'
	Open Finance services: e.g. linking purchases and home insurance
	Credit rating impact / credit score
	Interest cost analysis
	Smart Data insights: e.g. Carbon emissions or health analysis of purchases
	Automatic crediting to reward schemes
	Fraud warnings/controls and online safety controls
	Shared family or household wallets
	Integrated and automated verification and transactions: e.g. passport, reward scheme, and verification details automated with flight ticket purchase; age verification automated for relevant purchases

With our members we also identified the following customer expectations of benefits, over the next five years:

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Seamless	*Automatic services - e.g. crediting reward cards on purchases; automatic age verification*
Intelligent	*Advice on which form of payment would provide best outcome for a specific purpose*
	Additional insights - eg carbon footprint of spend; account balance
	Access to Open Banking / Open Finance including budgeting and balance info and advice

One particularly promising area is the development of AI-powered financial planning tools that can provide proactive, personalised, and real-time advice based on a comprehensive analysis of individual financial data and market trends. Imagine sophisticated AI agents that can meticulously analyse your spending habits, accurately predict future expenses, and automatically adjust your investment portfolio to optimise returns and mitigate risks, all in real-time.

Furthermore, AI has the potential to revolutionise lending by enabling more accurate and inclusive credit scoring. By analysing a wider range of diverse data sources, including social media activity, alternative data, and behavioural patterns, AI can provide a more holistic and nuanced view of an individual's creditworthiness, potentially expanding access to credit for underserved populations and promoting financial inclusion. This aligns with the UK's ambition to create a more equitable and inclusive financial system.

The seamless integration of blockchain technology and stablecoins, powered by intelligent AI agents, presents another significant opportunity for innovation. Smart contracts, driven by AI, can automate complex financial transactions, reducing costs, minimising errors, and increasing efficiency. The use of programmable assets, enabled by the synergy of blockchain and AI, can unlock new and dynamic business models and create more efficient and transparent financial markets. For example, AI-driven smart contracts could automate the execution of complex trade finance transactions, reducing the need for manual intervention, paperwork, and lengthy processing times. Combined with smart data schemes, such as an e-invoicing data standard, late payments could be reduced and burdensome paperwork facing many small businesses could be significantly reduced. E-invoicing is already used in other countries which reduces

late payments by 20% and processing times by 44%, saving small companies an average of £11,300 annually[17].

The application of generative AI (GenAI) is also showing enormous potential across various financial services domains. GenAI can be used to create highly personalised financial reports, generate realistic simulations for robust stress testing, and even develop innovative new financial products and services that are tailored to the specific needs of individual customers. Solutions such as these fall into the category of RegTech, a sector which is predicted to grow to $85.92 billion by 2032[18].

This transformative technology can also be leveraged to enhance customer engagement by creating personalised content, providing tailored recommendations, and offering proactive financial advice. Currently, an estimated 12.4m adults in the UK with assets of £700bn have fallen into the advice gap in 2024[19]. People falling into the financial advice gap tend to be described as those who would benefit from financial advice, usually to support their long-term financial needs, but who are unable to pay for it.

Looking further into the future - Quantum AI

Quantum technologies are currently being developed, including Quantum Compute, which brings huge benefits. However, it is important to understand that quantum computers are not just faster - the way they operate gives them particular strengths for certain applications. Classical computers represent information using binary digits, or "bits." Each bit can have one of two states: 0 or 1. However, quantum computers utilise qubits which can be a 1, a 0 or both - and they also have the ability, through a process called entanglement, to work together. This means that unlike classical compute which is linear in nature (i.e. one calculation at a time), quantum can do everything all at once. This makes quantum, utilising AI, particularly useful in certain applications:

Quantum-Enhanced Monte Carlo Simulations

Traditional Monte Carlo simulations, used for risk assessment, are computationally intensive. Quantum computers can perform these simulations exponentially faster, enabling more accurate and detailed risk assessments. This will allow financial institutions to model complex scenarios with greater precision, particularly in areas like portfolio optimisation and stress testing.

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[17] https://www.gov.uk/government/news/crack-down-on-late-payments-in-major-support-package-for-small-businesses

[18] https://innotechtoday.com/the-integration-of-generative-ai-in-regtech-rethinking-regulatory-compliance/

[19] https://www.moneymarketing.co.uk/news/advice-gap-widens-as-12m-adults-opt-for-diy-investing/

AI algorithms, when combined with quantum simulations, will enable dynamic risk assessments, adapting in real-time to changing market conditions.

Improved Fraud Detection

Quantum-enhanced machine learning algorithms can detect subtle patterns and anomalies in vast datasets, significantly improving fraud detection capabilities. This will be especially valuable in identifying complex fraud schemes that are currently difficult to detect.

AI will be able to perform real time analysis of transactions, and detect fraudulent activity before it completes.

Quantum Optimisation Algorithms

Quantum computers can solve complex optimisation problems much faster than classical computers. This will allow for the development of more sophisticated algorithmic trading strategies, leading to improved portfolio optimisation and higher returns.

AI trading algorithms will be able to incorporate far more variables, and react to changes in the market in near real time.

Market Prediction

Quantum machine learning can improve the accuracy of market prediction models. This will enable financial institutions to make more informed investment decisions and reduce market volatility. AI will be able to analyse huge amounts of unstructured data, and provide more accurate predictions.

Quantum-Enhanced Machine Learning for Customer Profiling

Quantum machine learning algorithms can analyse vast amounts of customer data to create more accurate and detailed customer profiles. This will enable financial institutions to provide highly personalised financial products and services.

AI will be able to provide tailored financial advice, and adapt it in real time to the customers changing circumstances.

Improved Credit Scoring

Quantum machine learning can improve the accuracy and fairness of credit scoring models. This will enable financial institutions to make more informed lending decisions and expand access to credit for underserved populations.

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Enhanced Cybersecurity

AI will be able to detect cyber threats that traditional systems would miss. Quantum AI will be able to detect patterns of cyber attacks, and predict future attacks with a far greater accuracy.

The role of Cloud

Cloud computing has become a catalyst for AI adoption within financial services, particularly for FinTech companies. The cloud's inherent scalability, flexibility, and accessibility provide the necessary infrastructure to handle the vast computational demands of AI algorithms. FinTech startups, unburdened by legacy systems, can leverage cloud-based AI platforms and services to rapidly develop and deploy innovative solutions, from personalised financial advice to fraud detection. Cloud providers offer pre-built AI models and tools, democratising access to advanced technologies and enabling FinTechs to focus on their core competencies rather than infrastructure management. This agility is crucial in a rapidly evolving market where speed and innovation are paramount. Cloud services also facilitate seamless data integration and sharing, enabling FinTechs to build comprehensive customer profiles and deliver personalised products and services.

Traditional financial institutions, however, may face significant challenges in adopting cloud-based AI due to their reliance on legacy systems and on-premises server infrastructure. These systems, often built over decades, are complex, siloed, and difficult to integrate with modern cloud platforms. Migrating vast amounts of sensitive data to the cloud raises security and compliance concerns, requiring meticulous planning and execution. The rigidity of legacy systems can also hinder the agility needed for rapid AI deployment and experimentation. Furthermore, the cultural shift required to embrace cloud-native development and AI-driven processes can be a significant hurdle for established organisations. Overcoming these challenges requires a strategic approach that combines technology modernisation with organisational transformation.

One crucial strategy for traditional firms is data virtualisation. This technology creates a unified, virtual layer of data access, abstracting the complexities of underlying legacy systems. Data virtualisation allows firms to access and integrate data from disparate sources without physically migrating it, reducing the risk and cost associated with large-scale data migrations. This enables firms to leverage their existing data assets for AI initiatives while gradually transitioning to cloud-based data platforms. For example, a bank can use data virtualisation to combine customer data from legacy core banking systems with transaction data from cloud-based payment platforms, creating a comprehensive dataset for AI-driven fraud detection. This incremental approach allows traditional firms to

modernise their infrastructure and adopt AI capabilities without disrupting their core operations.

What action is needed to ensure the UK unlocks these benefits and opportunities?

We recommend three priority areas for the UK Government and financial services regulators:

1. Build a full UK Tech Stack:
2. A review of AI enabling regulation.
3. Build consumer and industry confidence.

We set these out in more detail below.

1. UK Financial Services Growth and Competitiveness Strategy: build the UK Tech Stack

Just as innovation over the last 10 years came from cloud, mobile and social technology - so future growth will come from three core technologies and two enabling systems: AI, smart data, and Blockchain, supported by fraud data sharing and digital ID. These five components can build a world beating UK Tech stack - a sling shot not only for Financial Services but also productivity and growth across the whole UK economy. All five layers of the Tech Stack are needed to maximise the opportunity of AI in financial services and across the UK economy.

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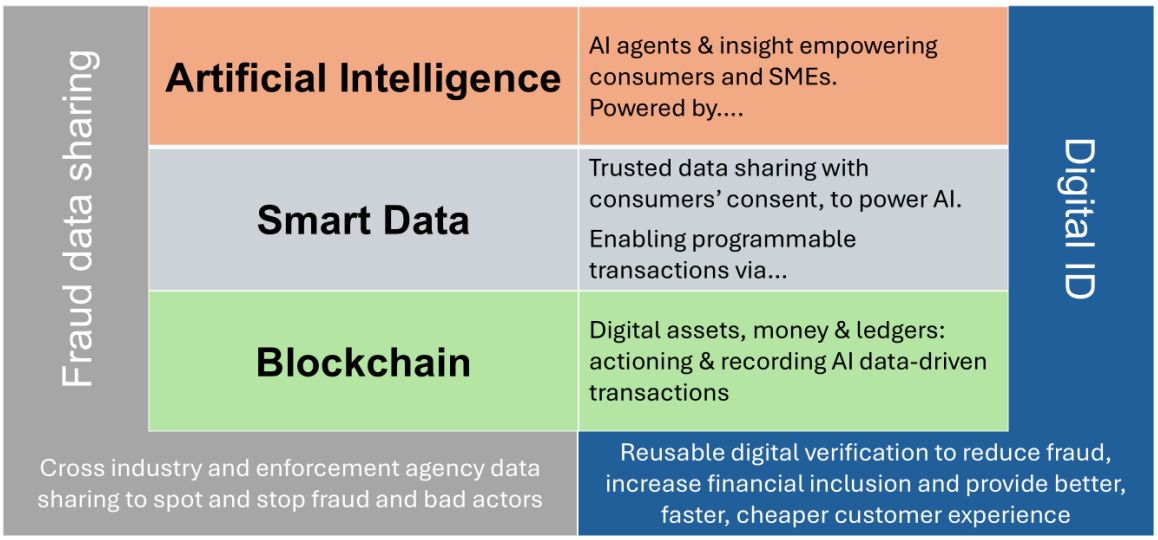
Proposed UK Financial Tech stack:



This should be the ambition at heart of the UK Financial Services Growth and Competitiveness Strategy being developed by Hm Treasury. It is critical to the future competitiveness of all the priority sectors of the strategy: sustainable finance, insurance and reinsurance markets, capital markets and asset management as well as FinTech.

Smart data

Smart data is a critical ingredient of AI powered growth. AI depends upon data. Smart data ensures a) quality data and b) consumer trust, as it is shared within a trust framework. The development of a robust "smart data" framework is absolutely crucial. AI models rely on high-quality, diverse, and representative data to function effectively and avoid bias. The government should proactively facilitate secure and responsible data sharing between financial institutions, while ensuring that robust data privacy safeguards are in place. As emphasised in the UK's National AI Strategy, fostering a trusted, responsible, and secure data ecosystem is paramount for unlocking the full potential of AI[20]. This framework should also address the ethical implications of using sensitive personal data and ensure that data sharing is conducted in a transparent, accountable, and auditable manner.

[20] https://www.gov.uk/government/publications/national-ai-strategy

The current Data (Use and Access) Bill[21] provides the legal basis for this. We then need a roadmap for extending open banking across financial services. This should be set out in the UK Financial Services Growth and Competitiveness strategy. Open Finance can provide the datasets that can power new AI services that unlock the benefits described above. This should include a smart data scheme for digital wallets. Increasingly wallets are where people access financial services, digital ID and payments. Smart data here can unlock innovation across our industry and reclaim the UK's lead in open banking.

Open Banking Trust Framework

Open Banking has implemented a trust framework that can be a blueprint for Open Finance. Open Banking is underpinned by 6 principles:

1. The customer never has to share their username and password with any entity other than their bank.

2. Open Banking is opt in, not opt out.

3. It depends on explicit consent given by the customer.

4. It is as easy to revoke permission as to give it.

5. Only authorised entities can participate: only authorised service providers can register on the Open Banking Directory, so unauthorised firms cannot trick customers into sharing their data with them.

6. If anything goes wrong there is a customer redress mechanism.

In our Plan for Government[22] we set out a number of areas which should form part of a roadmap for Open Finance. This should include implementation of projects already underway or where significant work has already been done; and initiate longer term projects that can deliver strong impact. A number of projects are underway and should be prioritised by Ministers for early adoption, enabling rapid economic gains:

[21] https://bills.parliament.uk/bills/3825

[22] https://ww2.innovatefinance.com/wp-content/uploads/2024/07/innovate-finance-fintech-plan-for-government.pdf

- SME lending: The Centre for Finance, Innovate and Technology (CFIT) and Open Banking Limited (OBL) have completed a report on data sharing to unlock more finance for SMEs. This includes recommendations on government data that should be adopted (albeit may take time) and some commercial APIs that can be brought to market quickly, with commercial incentives.
- Citizens Advice financial diagnostic: Citizens Advice should be enabled to adopt the Open Banking tool developed with CFIT, Innovate Finance and EY, and enable its wider adoption by other organisations.
- Combating fraud: CFIT has run a coalition to develop data sharing to combat fraud. OBL and Pay.UK have also been working on data sharing to tackle fraud, which should feed into this. The Financial Conduct Authority (FCA) sandbox has already supported a number of start-ups on possible anti-fraud solutions using synthetic data. This should provide the basis for implementation in 2025. This is an area where there should be strong commercial alignment.
- Consent dashboards: CFIT has developed a proof of concept for a dashboard where a citizen can manage their different Open Finance consents. OBL could now be asked to develop a trust framework and scheme rules for this to be rolled out.
- Digital verification: A number of Digital ID schemes have been developed which will better enable access to Open Finance and Smart Data services and help combat fraud. Relevant provisions in the DPDI Bill would enable the trust frameworks and accreditation needed for thee to be fully introduced.
- Project Perseus: A scheme to automate SME emissions reporting using smart meters to unlock transition finance for the green economy. This should have strong commercial alignment, as it is supported by a powerful coalition of banks, FinTechs, trade associations, accountancy bodies, and small business associations, and is aiming for a live pilot by the end of 2024.
- Investment and savings: TISA has developed working APIs and standards for Open Finance in savings, investment and pensions (Open Savings, Investments and Pensions (OSIP)) but adoption now depends upon a regulatory requirement (providing firms with assurance that it will be adopted across the industry, which ensures coverage and reliability for

consumers).[23] With a working prototype already developed with industry, this should be an early candidate for government to mandate introduction of Open Finance. This should be supported by FCA work to ensure the advice/guidance boundary enables and unlocks widespread provision of AI enabled financial advice to households and citizens. It should also link to implementation of the Pensions Dashboard, which should then be made interoperable with other Open Finance schemes.

- Longer term projects that could deliver significant gains at a later date include mortgages, insurance, and consumer credit information. Industry groups could be tasked to begin work now on exploring use cases and adoption pathways, with a view to these providing a second wave of open finance towards the end of the Parliament.

Blockchain

In the UK we had the opportunity of a 'second mover advantage' to establish a regime on digital assets that is more competitive than the EU. In recent months the US has attracted all the attention and we have seen investors like A16Z refocus there. But we still have an opportunity. The UK could offer the most competitive and trusted regime in the world, underpinned by legal and political stability. But we have to act fast to convey UK ambition and then translate that into action. Right now investors and innovators have no idea what the UK thinks about blockchain. In contrast they have seen action not just words from the US President and notably the appointment of David Sacks as US Tsar for AI and digital assets.

Proposal: an unequivocal, full-throated, ambitious Government commitment to make the UK the leading digital assets economy and market. We welcome Government commitments to date on tokenised securities and gilts - but these will not succeed in isolation. Industry work on tokenised securities and assets has shown we need stablecoin to underpin transactions. Just like smart data, this is also fundamental to UK AI ambitions: AI agents need digital assets and payments methods for transactions.

Fraud and data sharing

Proposal: Establish a national anti-fraud data sharing network.

[23] TISA, *Open Savings, Investments and Pensions (OSIP)* https://www.tisa.uk.com/tisa-groups-projects/osip/

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We all know fraud and economic crime is a drain on the UK economy, it destroys lives, it funds hostile actors. And it is enabled on social media and telecom platforms. Small scale data sharing has been shown to have targeted effects. We now need to industrialise data sharing to spot and stop fraud - with enforcement agencies and tech platforms as well as financial services. To date we have seen bilateral agreements with different parties to share data - or at best law enforcement working with a small number of big banks. Data based solutions need to be accessible and draw upon all players in the chain - including the smallest payment providers and the biggest tech companies.

Digital ID

Proposal: quickly establish UK market of trusted providers once Data Bill is adopted; ensure Gov.UK digital wallet does not skew the market.

To use AI for these purposes, it is crucial that good-quality data is being used which can be assigned, with certainty, to an individual or entity. In order to achieve this, a Digital ID or Digital Wallet will be required which can satisfy Know Your Customer (KYC) requirements from a regulatory perspective, but can also be the hub to where dynamic smart data can attach to an individual. This is a key dependency for Smart Data, allowing consumers to choose with whom to share their data from in order for them to provide tailored services through using sophisticated tools such as AI. Customers are also likely to be in more control of their data as it is widely expected that this ID or wallet will be the logical place to offer a ‘permissions dashboard’ from where these data use permissions are granted.

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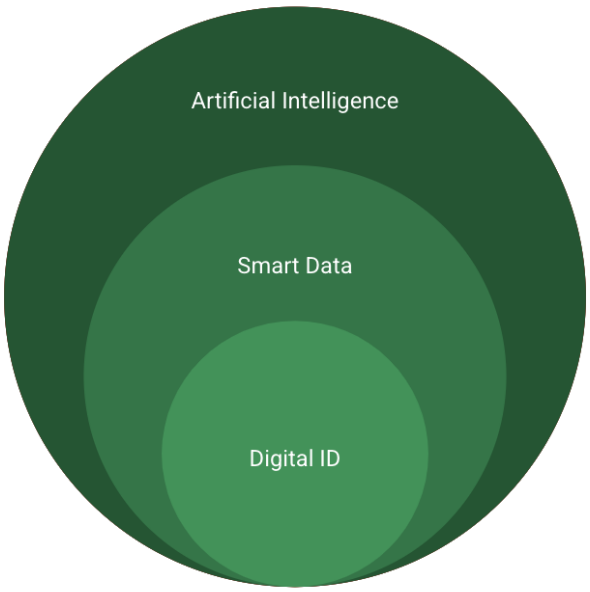

The aim must be for the UK to be a world leader in digital ID / digital verification (including wallet based ID) , with a dynamic, diverse market of providers operating under a UK trust framework that can also provide the basis for cross border activity. This requires action from Government - to act quickly in establishing the trust framework once the Data Bill is adopted and to take care in procuring and implementing digital verification solutions for Government services (eg driving licences) to avoid creating a monopoly and to encourage a diverse market of approved providers.

The prize: AI as part of a UK Tech Stack: Building UK capability across these tech stacks provides the basis for continued UK innovation and growth, for resilience and security in a volatile world, and for maintaining the UK as the world's leading financial markets. These technologies can also support a revolution in financial inclusion and unlock productivity and cash management solutions for firms across the UK and increase access to growth capital.

2. Review of AI enabling regulation.

i. Remove regulatory barriers to AI opportunities:

Alongside the wider economy priorities for AI identified in the Government's AI strategy (eg expanding UK data centres), in FS what we specifically need is a regulatory review to identify regulatory rules that stand in the way of AI solutions and an ongoing process similar to the current advice / guidance review. This should also look at AI enabled regulatory tools - including stability mechanisms and financial promotions.

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Advice/Guidance and targeted support

The FCA has begun consulting on a review of the advice/guidance boundary, with the aim of clarifying where it sits and with a view to more tailored support outside of traditional advice being provided to customers in financial services. However, this work is currently limited to pensions[24] with retail investments the next area to follow and progress is slow. Further, the consultations to-date have made very little mention of the role that technology can play, potentially missing an opportunity to identify some of the barriers to adoption and the FCA understanding where their rules can be more permissive to the use of technology to drive good outcomes.

Innovate Finance believes that artificial intelligence (AI) presents a significant opportunity to augment the guidance offered to consumers, providing more tailored solutions that can help bridge the advice gap and move beyond the limitations of generic guidance and the cost constraints of full financial advice. AI-powered tools can analyse individual circumstances, risk profiles, and financial goals to offer personalised guidance and support, moving beyond generic information to more actionable suggestions. This can empower consumers to make informed decisions about their pensions, leading to better retirement outcomes.

For instance, AI could be used to provide 'next best action' prompts within online pension portals, suggesting adjustments to contribution levels based on a user's age, income, and desired retirement lifestyle. AI could also power interactive tools that help individuals understand the implications of different drawdown strategies or assist with pension consolidation decisions by analysing fees and investment options across multiple providers.

Innovate finance believe the following is needed from the regulator in order to realise the potential of the technology in this area:

1. Clearer Guidance on the Use of AI in Financial Guidance: The FCA should provide clearer guidance, at pace, on how AI can be used to augment financial guidance without crossing the advice boundary. This guidance should address issues such as data usage, transparency, and the level of personalisation permissible in AI-driven solutions. It is crucial to strike a balance between enabling innovation and ensuring consumer protection. This could involve outlining specific criteria that AI-powered tools must meet to be considered guidance, such as providing clear disclaimers, ensuring human oversight of AI-generated suggestions, and offering users the ability to

[24] https://www.fca.org.uk/publications/consultation-papers/cp24-27-advice-guidance-boundary-review-targeted-support-reforms-pensions

override or customise recommendations.

2. Regulatory Sandbox for AI-Powered Guidance: The FCA should consider establishing a regulatory sandbox specifically for AI-powered guidance tools. This would allow firms to test and refine their solutions in a controlled environment, reducing regulatory uncertainty and encouraging innovation. The sandbox could provide a safe space for firms to experiment with different AI-driven approaches, gather data on consumer outcomes, and address potential risks before wider deployment. This would not only foster innovation but also ensure that new solutions are developed and implemented responsibly.
3. Alignment with the Financial Ombudsman Service: The FCA's approach in the advice/guidance space will need to be reflected in the way the Financial Ombudsman Service handles complaints in this regard. Clear guidance should be provided to ensure consistency in the handling of complaints related to AI-augmented guidance. This alignment is crucial to provide legal certainty for firms and ensure that consumers have access to appropriate redress mechanisms. The guidance should clarify how the Ombudsman will assess complaints related to AI-generated suggestions, taking into account factors such as the transparency of the AI system, the level of human oversight, and the extent to which users are informed about the nature of the guidance provided.

All parties want the best outcomes, however, as is currently the case with traditional advice, that may not always happen due to a variety of factors. It is important to not give undue prominence or salience to AI solutions because they are novel, as this would be unfair and the technology has the ability to provide support at-scale where this was currently un-economical to do so. Further, the approach and articulation of risk tolerances by regulators is important. For example, if a cohort of 100 people receive targeted support and 99 get a better result than they would have, but one person does not - do we look at the risk/benefit of the cohort or the individual? This matters as focusing on singular cases alone may hold back deployment of these technologies and deprive many of the opportunity to benefit from them.

Finally, other areas where the advice/guidance boundary can be clarified or targeted support and/or advice offered utilising AI, should be considered outside of the two areas the FCA is currently focussing on.

Senior Managers and Certification Regime

Additionally, the role of the Senior Managers and Certification Regime may also have a negative impact in the context of deployment of AI. This regulatory

framework, designed to foster a culture of responsibility, paradoxically introduces a factor that can lead to excessive caution, potentially stifling innovation.

The SM&CR essentially concentrates the regulatory risk of the operation onto one individual as a central point. This ‘nexus point risk’ creates a scenario where senior managers, acutely aware of their personal liability, are inclined to adopt a highly conservative approach. When faced with the decision to deploy an AI solution, they must weigh the potential benefits against the very real possibility of personal regulatory scrutiny and penalties.

The SM&CR's emphasis on individual accountability means that if an AI system generates biased outcomes, leads to regulatory breaches, or causes consumer harm, the senior manager responsible for that area could face severe consequences. Anecdotally, this personal risk creates a powerful disincentive to embrace AI solutions that are perceived as complex.

Whilst the FCA requires senior managers to take ‘reasonable steps’ to prevent regulatory breaches, the interpretation of what constitutes ‘reasonable’ in the context of rapidly evolving AI technology can be ambiguous. Furthermore, the Consumer Duty has delivered principles without prescriptive rules which is beneficial in many circumstances, but does not provide senior managers the comfort they need to understand if the solution their firm is deploying will match the expectations of regulators.

This uncertainty can lead to a ‘better safe than sorry’ mentality, where senior managers opt to forego potentially beneficial AI deployments rather than risk falling foul of regulatory expectations.

Another challenge with many advanced AI models is their ‘black box’ nature, making it difficult to understand how they arrive at decisions.

This lack of explainability directly conflicts with the SM&CR's requirement for senior managers to demonstrate they understand and control the risks within their areas of responsibility. Therefore, senior managers may also be more likely to approve of AI systems that are very easy to audit, and explain. This will limit the type of AI that is able to be deployed.

3. 3. Building confidence in adoption of AI solutions

To fully realise the transformative potential of AI in financial services, we need a forward-thinking regulatory framework that fosters innovation while effectively mitigating risks. Regulators must provide clear, consistent, and comprehensive guidance on the ethical and responsible use of AI, particularly in sensitive areas such as algorithmic trading, credit scoring, and customer service.

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We welcome the fact that the FCA has ruled out regulation of AI per se and instead looks to apply existing rule books to financial products and services.

It would be helpful for the regulators to be more publicly vocal about their approach.

We know from discussions with firms that what is holding back further adoption of AI in the UK, including in front-end consumer engagement tools and in back office efficiency improvements is a fear of media backlash - where in other sectors we have seen increasing negative reporting of instances where AI has been used (eg in DWP recruitment processes). The Treasury Committee can also play an important role in strengthening confidence in and acceptance of AI financial services.

Regulators can provide firms with greater confidence in developing AI tools. They should provide clear, practical, and accessible advice and guidance on the ethical use of AI. This includes addressing critical concerns about algorithmic bias, transparency, explainability, and accountability. Firms also need more clarity on the regulator's expectations when it comes to deploying AI solutions, particularly in customer-facing environments.

The Digital Regulatory Cooperation Forum (DRCF) is a forum of four regulators with responsibilities for digital regulation – the Competition and Markets Authority, the Financial Conduct Authority, the Information Commissioner's Office and Ofcom. They established an AI Hub[25] in April 2024 on a trial basis of 12 months which aims to help in this area. The Hub offers free informal advice if the query crosses the remits of at least two DRCF regulators and the firm's new product, service or business model meets the following criteria:

- AI or digital – Uses AI or other digital technologies.
- Innovative – Offers a new, novel or adapted way of conducting an activity using AI or other digital technologies.
- Beneficial – Has a positive impact on consumers, other businesses or contributes to the growth and competitiveness of the UK.

This should have been a much needed support mechanism for firms offering AI solutions and helping give them the certainty and confidence they can deploy these to the satisfaction of regulators; however, the hub has not been well promoted and despite the efforts of trade associations in the sector, awareness and therefore take-up remains poor. This pilot should be extended with much

[25] https://www.drcf.org.uk/ai-and-digital-hub/

more emphasis on improving awareness before a decision is taken to end the trial.

4. How can AI help provide better, cheaper regulation: AI for financial stability

AI can also play a vital role in enhancing regulatory compliance, strengthening financial stability, and improving the efficiency and effectiveness of regulatory oversight. RegTech solutions, powered by advanced AI algorithms, can automate complex compliance processes, reducing costs, minimising errors, and improving efficiency. AI can be used to monitor market activity in real-time, identify potential systemic risks, and predict financial crises before they unfold. For example, AI-powered systems can analyse vast amounts of market data, news feeds, and social media sentiment to detect patterns of market manipulation, fraud, or systemic risk. Indeed, the FCA recently ran a three month market abuse surveillance sprint with teams from across the world working on solutions which focused on eliminating harm and ensuring a fair and competitive market[26].

Furthermore, AI can significantly enhance the effectiveness of regulatory reporting. Machine learning algorithms can analyse vast amounts of regulatory data to identify anomalies, potential breaches, and emerging risks, enabling regulators to focus their limited resources on high-risk areas and prioritise their supervisory activities. This can lead to more efficient, effective, and targeted regulatory oversight. AI can also be used to improve the accuracy, timeliness, and consistency of regulatory reporting, reducing the burden on financial institutions and improving the quality of regulatory data.

The risks to financial stability arising from the widespread adoption of AI must be carefully managed and mitigated. Regulators should implement robust real-time monitoring systems to detect and mitigate the risks of algorithmic herding, flash crashes, and systemic contagion, driven by AI trading. The concentration of powerful AI tools and data in the hands of a few large tech companies also poses a systemic risk, as it could lead to vulnerabilities and dependencies that could destabilise the financial system.

One area that deserves further consideration by the regulators is the risks of GenAI hallucination, bias, and manipulation. Financial firms must implement robust validation processes, ethical guidelines, and human oversight to ensure the accuracy, reliability, and ethical use of GenAI-generated content. Additionally, the use of social media data in AI trading algorithms raises serious concerns about market manipulation, the spread of misinformation, and the potential for algorithmic bias. Regulators should carefully consider the ethical and societal

[26] https://www.fca.org.uk/firms/techsprints/market-abuse-surveillance-techsprint

implications of using social media data in financial markets and establish clear guidelines for its responsible use.

April 2025