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Written evidence submitted by Mastercard

Mastercard welcomes the opportunity to share its views and experience on the use of AI within financial services with the UK Parliament's Treasury Committee.

As a global technology company in the payments industry, Mastercard develops and leverages AI products and solutions to make everyday commerce activities - such as shopping, travelling, running a business, and managing finances - easier, safer and smarter for everyone. Our company has been using AI for well over a decade to enhance the safety and security of the payment ecosystem. We have also used AI across various facets of Mastercard's operations to optimise the payment ecosystem, thereby improving people's payments experience with smarter and more personalised solutions. These AI technology investments have strengthened the protection of our partners, suppliers, customers and consumers. Our AI-based tools, built on a robust governance framework, have helped Mastercard to improve online fraud detection and prevention, advance inclusive growth and financial inclusion, partner with policymakers to better understand and respond to crises (e.g. COVID-19 and cyberattacks), and secure consumer access to the digital economy.

In this context, we would like to respectfully share the following contribution with the UK Parliament's Treasury Committee:

I - Benefits and risks to consumers arising from AI in financial services

Innovative technologies, such as AI, have the potential to bring significant benefits to consumers in financial services and beyond. However, it is crucial to acknowledge that these advancements also come with inherent risks that need to be measured, mapped and mitigated to ensure the responsible and ethical development and deployment of AI.

At Mastercard, we take a human-centric approach to develop solutions that use AI and believe that AI can offer numerous benefits to consumers in financial services. For example:

- ***Fraud prevention and detection***: AI already plays a key role in detecting and preventing fraud. As fraudsters themselves begin to leverage AI to generate new fraud patterns, financial services companies can use AI to analyse large amounts of data to detect these fraudulent patterns and anomalies, predicting whether a transaction is likely to be genuine and verifying that people are who they claim to be, helping to reduce financial losses for consumers and businesses, and enhancing both security and trust in digital payments. Mastercard has been leveraging its AI capabilities and network view of payments to help banks better predict scams and identity theft in real-time. In 2023, Mastercard's use of AI globally helped protect over 143.2 billion transactions, preventing £15 bn from being lost to cybercriminals. Our AI-powered solutions doubled the detection of compromised cards, reducing false positives by up to 200%, and increasing the speed of identifying merchants at-risk from - or compromised by - fraudsters by 300%.

- ***Cyber threat detection***: AI can be used to improve cyber threat detection in the financial sector, further increasing consumer trust and security, while ensuring financial stability and payments resiliency. Indeed, AI provides major benefits in automating rules-based processes by analysing datasets, recognising patterns, and continuously learning from real-time input, e.g. by simulating cyber-attack scenarios or generating synthetic data. For example, detecting DDOS attacks in cybersecurity often relies on expert rules about the level of traffic, speed of increase, and other metrics. AI can reliably automate expert rules and execute protective measures quickly. AI supports other rules-based automation, like in risk management, and customer service interactions. Mastercard's algorithms provide adaptive risk assessments, helping organisations identify and prioritise vulnerabilities more accurately, allocate resources efficiently and implement targeted security measures based on the current threat landscape.

- ***Open Banking:*** Open Banking is driven by transformative technology that enables and empowers consumers to give banks and other financial institutions permission to share their data with third parties for their benefit. When combined with AI, these services provide consumers with better, easier, and faster access to their spending insights, enabling them to budget more effectively and plan ahead for bill payments. In the context of Open Banking, Mastercard has been embracing AI to offer consumers a platform that provides them more control over their financial data together with more payment choices, personalised financial management solutions, streamlined processes and enhanced security.

- ***Advancing financial inclusion***: Beyond the above use cases, there is tremendous social good that can come from AI if we invest in AI tools and research with a specific focus on tackling real-world challenges. At Mastercard, we have been looking at how AI can help to close the gender gap, advance financial inclusion and decrease bias in the financial sector. For example, through data.org, we have supported two inspiring projects, led by Women's World Banking and the University of Zurich: (i) one involved developing AI models that use data and machine learning responsibly to facilitate access to credit for millions of small businesses and consumers in India, Colombia, and Mexico; (ii) another one resulted in the creation of a "Check your Bias" scorecard, so financial institutions can assess fairness in their decision-making when lending to women compared to men.

While AI in financial services can offer significant benefits to consumers, it also presents inherent risks that must be carefully considered. These risks are not exclusive to the financial sector but apply to AI in general, such as:

- ***Bias and discrimination:*** While AI can vastly benefit consumers through increased efficiency, personalisation, and explainability; it could present a risk to consumer protection if not accompanied by proper design and governance. Indeed, AI systems can be biased due to unfair historical data, non-inclusive design, and a number of other reasons. Mitigating this bias in AI systems, is a concern across industry – with many organisations taking steps to

address these risks. A common challenge encountered by firms when testing for bias is that of data access and specifically access to special category data within the constraints of the UK GDPR – further clarification on the conditions and safeguards for processing special category data for the purposes of bias monitoring, detection and correction in relation to AI systems would therefore be very welcomed.

- ***Data, Privacy and Security:*** Poorly designed AI can also pose privacy and security risks. Ensuring that sensitive financial information remains confidential is crucial, as any breach can have severe consequences for both consumers and financial institutions. AI systems can be targeted by malicious users who seek to exploit vulnerabilities for activities such as misinformation and fraud. To mitigate these risks, it is essential that firms implement robust security measures, such as encryption, access controls, and continuous monitoring to protect AI systems from potential threats. Privacy by Design (PbD) is a core principle at Mastercard, ensuring that privacy and security safeguards are embedded into the design of innovations from the outset. This approach is central to Mastercard's trust strategy, which includes Data Responsibility and Best-in-Class Cybersecurity. What this means in practice is that we innovate by placing the individual at the center, protecting and respecting their privacy and personal information along the way.

Mastercard is committed to responsible and ethical AI development and use, and we take a human-centric approach to AI. Founded in 2019, Mastercard's AI Governance program is a set of processes, policies and tools by which we ensure that that we assess, mitigate, and track risks presented by AI. The program is built on our Data & Tech Responsibility Principles[1], which include privacy and security, inclusion and fairness - and guide the design, development, and application of all data-driven technology at Mastercard, especially AI. This ensures that our innovation with data is beneficial and done in a way that not only protects Mastercard but also guards individuals from unintended outcomes and harm.

The core of Mastercard's AI Governance program is a 3-stage framework to develop responsible AI. First, we perform a risk assessment for an AI project. Then, we implement risk mitigations in collaboration with the product teams. For example, one such mitigation might require a team to run their data through an automated bias test to ensure that the data doesn't have any harmful historical biases. Finally, we monitor all ongoing AI projects to ensure they are meeting performance metrics and implementing risk mitigations.

II – Recommendations for UK policymakers on AI policy

To support the responsible development and deployment of AI technologies that deliver benefits to consumers, businesses, and society at large, we respectfully offer the following recommendations to UK policymakers:

[1] https://www.mastercard.us/en-us/vision/corp-responsibility/data-responsibility.html

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- ***Leverage existing, technology-agnostic laws***: Many laws already address potential harms to consumers in a technology-agnostic way (e.g., data protection, fair lending, civil rights, and consumer protection laws). Relying on existing legal frameworks allows for more consistent application of these critical protections, no matter how technology evolves in the future. While new AI-specific policies may be appropriate in some cases, there is a wide range of legal instruments which are already in place and should be leveraged.

- ***Adopt principles-based legal frameworks:*** To the extent an AI specific policy is proposed, it should be a principles-based framework, which defines a flexible approach that can evolve as AI evolves. Unlike an overly prescriptive policy regime, a principles-based framework allows for swift adjustment to technological and societal changes and creates a level playing field to enable all participants across industries to compete and innovate.

- ***Pursue global legal convergence:*** While countries may have distinct legal environments, legal convergence on taxonomy and principles can help reduce divergent or contradictory legal frameworks and promote legal certainty and compliance. For instance, a shared definition of AI systems will help ensure that everyone, regardless of their location, receives the same level of protection from AI-related risks. AI policy must be driven by respect for an individual's fundamental rights, health, and safety. As such, it should consider the potential negative impacts that any AI development or use may have on individuals and society and should not lose sight of the potential benefits.

- ***Promote AI literacy:*** AI literacy amongst the public, public bodies, and organisations is crucial for building trust and confidence, and increasing the uptake of AI technologies. By enhancing awareness and understanding of AI, individuals and businesses can make informed decisions about its use. Mastercard is committed to advancing AI literacy, to foster a more informed and responsible use of AI amongst employees and partners. Through workshops, trainings and specific guidance, we aim to demystify AI technologies, promote ethical AI practices, and equip our employees and partners with the knowledge they need to navigate an increasingly AI-driven world.

- ***Encourage firms to adopt AI governance frameworks***: Encouraging firms to adopt AI governance frameworks will ensure that AI systems are developed and implemented transparently, fairly, and accountably. While there is no one-size-fits-all approach to AI governance, sharing best practices can be highly beneficial to both businesses and consumers.

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