Written evidence submitted by Lloyd's Market Association

About the LMA

The Lloyd's Market Association (LMA) represents the fifty-two managing agents at Lloyd's, with ninety-six active syndicates (including SPV's) underwriting in the market.

Managing agent members are "dual regulated" firms, regulated by the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA). For 2024, total gross premium was £55.5billion. The Lloyds's Market distributes through both the UK and over two hundred countries worldwide forming a key part of the London and UK economy representing 2% of the UK GDP and 32% of the city economy.

68% of London market premium, and 89% of Lloyd's market premium, originates outside the UK. The government can play an important role in opening doors for our members to increase export of their insurance products internationally.

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

Are there particular areas of financial services that are adopting AI more quickly and at higher rates of penetration than others? Are Fintech firms better suited to adopting AI? What percentage of trading is driven by algorithms/artificial intelligence?

In the AI in financial services 2024 survey results, carried out by Bank of England and FCA, the insurance sector reported the highest percentage of firms currently using AI at 95%.

Much of the insurance and reinsurance capacity available at Lloyd's is provided on a subscription basis, where syndicates each take a share of large and complex risks. In part due to this structure, the Lloyd's market is already taking advantage of the growth of AI and algorithmic trading in insurance.
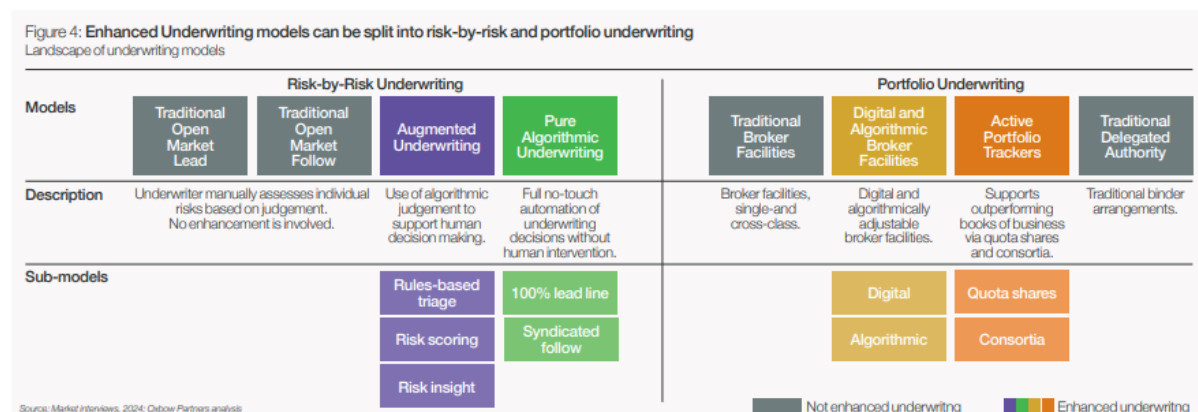
The LMA recently produced a report on the growth of enhanced underwriting at Lloyd's (available [here](#)) highlighting the various ways in which the market can adapt to increased use of algorithms and AI. This method of underwriting risk is expected to account for a significant proportion of the Lloyd's premium income in the coming years. Further details on how we see underwriting to be transformed by algorithms and AI over time are outlined in our response to question 2 below.

2. **To what extent can AI improve productivity in financial services?**

Where are the best use cases for AI? Which particular transactions may benefit from AI?

As we have said the Lloyd's market is characterised by multiple insurers coming together to provide insurance capacity for large individual risks or groups of risks. Therefore, it is well placed to take advantage of algorithms and AI to facilitate this activity. In our report, we outlined four areas where underwriting will change through the improved use of data and algorithms, as shown in the picture below.

As a tool, AI may form part of these models, or facilitate the transaction, even if the whole end to end process is not reliant on AI.

Figure 4: Enhanced Underwriting models can be split into risk-by-risk and portfolio underwriting
Landscape of underwriting models

Models	Risk-by-Risk Underwriting				Portfolio Underwriting			
	Traditional Open Market Lead	Traditional Open Market Follow	Augmented Underwriting	Pure Algorithmic Underwriting	Traditional Broker Facilities	Digital and Algorithmic Broker Facilities	Active Portfolio Trackers	Traditional Delegated Authority
Description	Underwriter manually assesses individual risks based on judgement. No enhancement is involved.		Use of algorithmic judgement to support human decision making.	Full no-touch automation of underwriting decisions without human intervention.	Broker facilities, single-and cross-class.	Digital and algorithmically adjustable broker facilities.	Supports outperforming books of business via quota shares and consortia.	Traditional binder arrangements.
Sub-models			Rules-based triage	100% lead line		Digital	Quota shares	
			Risk scoring	Syndicated follow		Algorithmic	Consortia	
			Risk insight					

Source: Market interviews, 2024; Oxbow Partners analysis

Legend: ▮ Not enhanced underwriting   ▮▮▮ Enhanced underwriting

1. Augmented underwriting

In Augmented underwriting, the human underwriter remains central to the decision-making process. Underwriters are assisted by data and algorithms that triage submissions, score the risk and/or provide risk-specific insights to support them in decision making. This could, for example, include the risk of flood for a given postcode utilising 3rd party systems. The use of AI to generate these insights and facilitate the production of a risk score is expected to increase in the future.

2. Pure algorithmic underwriting

In Pure Algorithmic Underwriting, risk decisioning and processing is fully automated, removing the human from the point of decision making. These models are characterised by the objective of straight-through processing, although they often have a referral process that includes a human underwriter based on exception reporting.

3. Digital and algorithmic broker facilities

Algorithmic broker facilities allow risks to be automatically placed with participating insurers when they meet criteria defined by those underwriters. The criteria can by dynamically adjusted throughout the term of the facility. This is currently performed by human underwriters, but there is potential for increased use of AI in this in the future.

In addition to underwriting, there are many use cases for operational enhancements utilising AI, for example automated data ingestion, automated workflow processes, fraud detection and joining up of systems.

AI could also provide insight into an insurers book of business which would help them when purchasing reinsurance. It could help ensure that there are minimal gaps in coverage between the underlying insurance and reinsurance contracts as well as facilitate greater efficiency in their use of capital.

Another area with significant room for growth is the use of AI to compare a claims form (especially large claims files such as those submitted in medical or catastrophic claims) against policy wording and determine if it is a covered loss. A very specific purpose which can easily have a human control to review any proposed denials. A similar use case would be in claims adjusting, where an AI could assess storm claims data and settle small claims quickly and in large quantities.

Finally, we could see AI being used to monitor aggregate exposures (e.g. the number of buildings insured in a given area) and adjust availability/pricing of cover in real time. Slightly broader, but again would have the ability for human to monitor & check areas where coverage made unavailable/confirm no disparate impact on communities sharing certain characteristics.

What are the key barriers to adoption of AI in financial services?

Data protection, privacy and a requirement for better education are the greatest constraints to adoption currently. For example, it is not clear how consent granted by a customer to use their data for training of AI models could subsequently be revoked.

The cost of implementing in-house solutions is often disproportionate to the benefit which can accrue to an individual insurer and the use of third parties for providing AI solutions is likely to be significant. Therefore, third party rules and Operational Resilience could also pose barriers to the adoption of AI. Where use of third parties is reliant on this compliance, this could lead to concentration risk in AI model usage in the market as only the largest AI providers could meet these requirements.

As a global business, there is particular concern where international rules are inconsistent with each other. Therefore, we continue to encourage the government and regulators to use their international influence to ensure the interoperability of international rules on AI and data.

Another barrier to adoption could be the culture of both firms and the regulators. There should be a firm culture that encourages risk-based innovation, change and transformation from the Board level down, which needs to be supported by a risk-based regulatory culture which continues to focus on competitiveness as well as protection.

There is also a perceived risk that AI use in its current form, could result in unfair outcomes with limited ability to understand how those outcomes came about, resulting in a reluctance to adopt the technology in certain circumstances. However, we believe that the current regulatory framework is general enough to allow AI to be effectively regulated and any attempt to reduce the burden of existing rules to facilitate the increased use of AI in financial services, should be carried out carefully in order to ensure customer protections are not unduly eroded.

The insurance market is highly interconnected, with many companies reinsuring a significant portion of their liabilities with other reinsurers. This requires the reinsurers to understand what is in the book of business they are looking to reinsure. Although it has always been a risk, the potential future use of AI to interrogate books of business could lead to concerns around loss of IP within the market.

A final element which is a barrier to adoption is the lack of sufficient skillset in the market to enable appropriate implementation of AI. Improving the pipeline of AI talent should be a priority to mitigate this barrier.

Are there areas where the financial services should be adopting GenAI with little or no risk?

Yes, examples in the medium-long term could be the provision of robo-advice or self-service chat bots for the notification of claims.

Cases such as automated data ingestion and transforming unstructured data to structured data could also be carried out with minimal risk.

Are there likely to be job losses arising from AI in financial services and if so, where?

Widespread use of AI is likely to have a marked effect on the unique nature of the London insurance and reinsurance market. For example, the use of AI will naturally result in the need for fewer people to be employed in repetitive or low risk tasks.

A long-term knock-on effect of less entry level roles being a reduced pipeline of talent and less opportunity to build expertise in the market, a current hallmark of the London market. Reduced expertise could impact the ability of the London market to deal with specialist individually constructed risks and therefore its long-term competitiveness through having features that distinguish it from other markets.

Is the UK's financial sector well-placed to take advantage of AI in financial services compared to other countries?

We believe that the current regulatory framework for financial services, based on outcomes, is flexible enough to allow AI to be regulated effectively. We continue to support an appropriate and proportionate approach being taken by the regulators which maintains the current focus on competitiveness. This includes an appropriate discussion and understanding of risk with other stakeholders such as government, this committee, and as mentioned previously, consistency in international regulation. This is particularly important given our global industry.

However, the position will need to be kept under review, especially with the speed of changes that we see in technology.

We do believe the UK is currently at a disadvantage to certain other countries when it comes to the pipeline of talent available in the market. A growth in expertise, both in industry and in regulators, is required to ensure the competitiveness of the UK in the adoption of AI. In the meantime, we need to ensure that cross-border collaboration is facilitated and undue barriers to accessing expertise are not introduced.

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

Does AI increase the risks relating to cybersecurity?

AI systems will be a greater target for attack if they control significant parts of the underwriting and claims process. It is also clear that wordings under Cyber, D&O and E&O policies need to keep pace with the changing landscape to ensure they remain appropriate and take the new risks into account.

What are the risks around third-party dependencies, model complexity, and embedded or 'hidden' models?

Third party dependencies

- Smaller insurers may rely on third-party AI models due to limited resources. These entities may lack the control within the AI model and its functions. However, they would still be bound by compliance obligations placed by the regulator without the commensurate ability to enforce these obligations on comparatively larger third-party providers of AI models.

Model Complexity and embedded or 'hidden' models

- AI models are highly complex and difficult to interpret. There is a risk of unidentified bias within the model as there may be a lack of explanation. These black-box decisions without appropriate controls could make it difficult to understand decisions.

How significant are the risks of GenAI hallucination and herding behaviour?

Where similar data sets are used by different implementations of AI at different firms, this could ultimately lead to homogenisation of products a "group think" amongst machines.

This could therefore lead to a lack of diversity of product availability or pricing. This will be particularly acute where the same training data is used for multiple systems.

GenAI also has the possibility of compounding existing bias or group think that is contained within any initial training data.

In addition, when considering the broader financial market, there is a risk that herding behaviour could accelerate the risk of broad market sell-offs such as those seen in the Financial Crisis. In particular, where large contracts often have a clause which requires collateral to be posted upon certain events transpiring (e.g. a downgrade in rating agency scores), this could lead to a negative spiral which could be difficult to get under control.

Are the risks of having AI tools used in the financial sector concentrated in the hands of a few large tech companies? To what extent do the AI financial market tools rely on social media outlets? E.g. trading algorithms using social media posts?

We previously gave a response on this topic in the Big Tech Call for Input submitted to the FCA in January 2024. In summary, most products in the insurance market evolved over time based on learning experience and acquired data and entering the market requires access to high quality data to build appropriate actuarial models.

It can be very difficult for firms to be true new entrants to the market. However, where BigTech firms have used partnerships with incumbent insurers to bring about new products and services, they have also gained long-term access to product performance and claims data which builds their understanding and provides the 'quality data' they need to enter the market. This could enable BigTech firms to leverage their market position to enable advanced risk modelling and use third-party profiling data. While granular data can lead to more individual pricing, it may reduce traditional risk pooling, potentially excluding vulnerable customers. This may initially increase competition but could later lead to reduced consumer choice and higher margins in the long term.

Alongside this, considerations should be given to appropriateness of profiling from social media or similar data and how this could lead to discriminatory outcomes for some customers. For example, views expressed, or activity online may be proxies for race, religion or sex.

There is a risk where insurers who cannot afford to implement AI or fund its training may become inefficient in the long run and therefore be priced out of the market ultimately allowing the remaining big players to increase the cost of insurance through a reduction in competition.

4. **What are the benefits and risks to consumers from AI, particularly for vulnerable consumers?**

What benefits to consumers might arise from using AI in financial services? For example, could AI be used to identify and provide greater assistance to vulnerable consumers?

AI can automatically assess claims forms against policy wordings, leading to faster claim acceptance or denial and quicker payouts. Improved fraud detection could also enable this by ensuring human attention can be focused on claims which have been denied.

AI powered chat-bots and robo-advice could also be used to facilitate "out of hours" operations.

In the London Market, bespoke wordings are often agreed with counterparties, due to the specialist nature of the insurance. This can lead to difficulty in aggregating exposures when a particular wording proves to be problematic, the use of AI to interrogate wordings in the market could help facilitate a faster understanding of any exposure in these scenarios.

GenAI could also be used for constructing bespoke products or assembling contracts based on customer information. The current approach to mass-market insurance products is that there are a small number of products which are offered with slight variations in coverage or amount of claim payable, however AI could be used to provide a more bespoke contract for individuals in the future. Care would need to be taken in this case to ensure that the industry cannot price a risk so specifically that insurance loses its risk-pooling quality.

In the London Market, this could take the form of a reinsurer building a bespoke contract from a database of existing wordings, such as that maintained by the LMA, in order to meet the specific needs of a book of business into which it has greater insight due to the use of AI.

What is the risk of AI increasing embedded bias? Is AI likely to be more biased than humans.

There is a risk that AI could potentially pick up trends and correlate them with protected characteristics or proxies for protected characteristics. This would have a discriminatory effect which is already covered by existing legislation.

It is unclear as to whether this risk will materialise, it is also possible that AI could be less biased than humans, or that when bias is detected, it can be more easily addressed programmatically than when that bias presents itself in humans.

There is also a risk that an increased understanding of risk facilitated by the use of these models could result in a lack of access to insurance for higher risks, leading to a lack of access to insurance for those in the most vulnerable areas.

What data sharing would be needed to make AI more effective in financial services, and will there be a need for legislative changes to achieve that?

We do not believe any legislative changes are needed to achieve this. As mentioned previously, it is important that international rules are consistent to maintain the competitiveness of the UK market.

Are there any current or future concerns around data protection and AI in financial services?

AI memorises data which is used to train the system, or which may be input into it by a user of the AI system. The data memorised may include personal information that is subject to data protection laws. However existing rules should be sufficient to mitigate the impact of this e.g. by requiring a full data

protection Impact Assessment to be completed and be subject to appropriate governance oversight where personal data is involved.

With the increased use of AI and the amount of data stored within it, there is a risk of data breaches and misuse of information.

What sort of safeguards need to be in place to protect customer data and prevent bias?

We believe that customers should be given information about how AI is used by a company that they are looking to do business with and how AI may possibly affect them. It is also important that the government supports public awareness of the risk posed by the increased use of AI. We would encourage a public awareness campaign which could also help customers understand how to mitigate this risk, including through the purchase of insurance products which include both risk-transfer and risk-mitigation style products. This would ensure that customers can make an informed choice.

Whilst prevention of bias may be difficult to incorporate upfront, there should be mechanisms to back-test the outcome of the use of AI for any bias and an ability to amend the use of such AI to prevent further bias from occurring. The current direction of travel towards an outcome-based regulatory environment supports this approach. We should also always bear in mind that customers of different levels of sophistication require different levels of safeguards to be put in place.

5. **How can Government and financial regulators strike the right balance between seizing the opportunity of AI but at the same time protecting consumers and mitigating against any threats to financial stability.**

Are new regulation needed or do existing regulations need to be modified because of AI?

We believe no additional AI regulation is needed, nor do any current regulations need amending. The regulation of AI can take place within the existing regulatory framework, which is drafted in a general way. For example, poor outcomes are the same whether or not they are precipitated by human or AI – the remediation might be different but that is already within the regulators' gift in the current framework.

Also, to the extent that AI is relied upon by authorised firms, the expectations of the regulators of those firms should be no different to where AI is not used. Whilst emphasis may be placed on different preventative measures as between when AI is used and when AI is not used it is likely that the regulators will already have these powers.

In the event new regulation is introduced or where current regulation is amended, we believe the UK needs to work in concert with other regulators both home and abroad. This is to ensure harmonisation on an international basis as to how data is dealt with and ethnics in relation to AI and AI systems.

Will Government and regulators need additional information, resources or expertise to help monitor, support and regulate, AI implementation in Financial Services?

As previously mentioned, we believe that the expertise in the market needs to improve from its current position. The bottleneck on talent applies equally to regulators as it does to industry.

AIFS0072

April 2025