AI Act: is the EU approach the right one?

1. Market trends, opportunities and challenges related to the use of AI in the financial sector

1.1 Progress made in the implementation of AI systems in the financial sector

The Chair stated that artificial intelligence (AI) is one of the key technologies driving the digital transformation of the financial sector. In a recent survey conducted by the French supervisor of banks and insurance companies (ACPR), the vast majority of banks and insurers mentioned AI as the first key technology driving digital transformation in the financial sector.

A regulator emphasized that insurers have been working with and analysing data for decades. It is therefore natural that AI is developing in this sector. In a 2020 EIOPA survey, 35% of insurers declared they were already using AI and 25% were in the proof of concept phase. With the acceleration of digitalisation it is probable that those proportions will have significantly increased. AI is used throughout the insurance value chain. In product development insurers use data coming from underwriting and claims, chatbots are used for client interaction and AI is already an important part of the claims handling process for many insurers. It is expected that these applications of AI will increase in the future. The speaker saw a significant potential for AI use particularly in claims handling, e.g. for checking the validity of invoices before they are paid or for assessing damages to a car based on images sent by customers, leading to improved efficiency and fraud detection.

An industry speaker stated that it is really important to differentiate between the hype around AI and practical applications in the financial industry. Robots are not going to totally replace humans in finance any time soon, but there will be an increasing use of natural language processing and machine learning (ML) in particular over time. When people are talking about AI, they are really talking about extreme automation in most cases. Regtech companies for example are leveraging AI as a way to turn regulatory requirements into code. Using and leveraging AI is really about making people's jobs more interesting by automating certain activities and about gaining new insights with a better usage of data. This also coincides with the way that aspirations are evolving following the Covid crisis. Many people want their jobs to be more interesting and offer better prospects, which can be facilitated by AI-supported automation. It is however essential to keep having a 'human in the loop' to ensure that technology and data are being used in an appropriate way.

Another industry speaker agreed that AI and ML are at the heart of innovation and the digitalisation of the financial sector. Financial institutions are using AI and ML to solve complex problems and create new opportunities in a number of different areas including product personalisation, automation, fraud detection and market surveillance. For example banks are using AI to tailor customer experience and product recommendations based on spending patterns and customer profiles; asset managers are optimising portfolio management with the analysis of alternative data sets. AI and ML adoption has accelerated in recent years and this trend is expected to continue, supported by the access to practically unlimited computer power and data storage offered by cloud services in particular.

An official stated that many potential applications of AI could help financial service consumers. AI and ML software can for instance be used to facilitate consumer protection with AI based systems performing verifications of online contract details[1], provided the data is available in a machine readable way.

1.2 Potential obstacles and challenges to a greater adoption of AI

A regulator stressed that insurers will have to adapt in order to leverage the potential of AI. Companies wanting to make full use of AI and ML for risk management purposes will need to keep their internal risk governance and risk management processes up to date with a regular testing and validation of feedback loops. This process can be partly automated, but human intervention will always be necessary to validate the internal and external data that goes into the ML or AI systems. Secondly, companies wanting to use ML throughout their entire business will probably need a more agile IT infrastructure, moving to new servers and potentially to the cloud in order to have access to greater capacity and state-of-the art technology. Thirdly, it is necessary to develop the adequate competences in companies for using AI technology in a proper way, as well as an awareness of the ethical issues at stake.

An industry speaker agreed that upskilling the workforce is essential for intensifying the use of AI and that clients also need to be made aware of the implications of these changes, i.e. of the potential benefits of AI, the related risks and the measures put in place to mitigate these risks. Change management is also important, because while AI and related automation can help to reduce manual operations and operational risk dramatically, people can be resistant to these changes if they have

1. This is already happening through a project conducted by the European University Institute in Florence called CLAUDETTE that uses an AI-based system to review contracts and look for GDPR compliance, highlighting clauses that may go against EU regulations or that are not in the favour of customers.

not been adequately trained and involved in the implementation of these new technologies. Data standardisation is another essential condition for fostering the uptake of AI in finance, the industry speaker emphasized, because AI algorithms need to be trained, which requires access to vast pools of good quality data. This requires improving in particular the way that data sources function and the way that databases collect data

An official agreed that data quality and availability are essential for developing AI applications in the financial sector. A key element is also that the data should be available in a machine readable way.

1.3 Main risks associated with the use of AI

An official stated that while there is enormous potential in the use of AI for the economy and financial markets, there are also some risks. The first risks stem from the innovative nature of AI. Secondly, AI use may amplify some existing risks in financial markets, given the ability of AI related techniques to dynamically adjust models based on the conditions, in a fully autonomous way without human intervention. One of the biggest challenges with AI is explainability i.e. the potential difficulty of understanding how and why a model generates results. This possible 'black box' nature of AI may create risks and also practical obstacles to its use. For example if the underlying reasons of recommendations made with an AI-based investment advice system or with an AI-supported credit attribution system cannot be easily explained, this can be an issue for customers and advisors using the system and may also breach regulatory requirements. Indeed, in certain jurisdictions, borrowers who have been denied lending have the right to know the reasons for this.

The official added that AI also raises issues in terms of governance, because it is very difficult to assign accountability when models are fully autonomous. This becomes even more complex when third party players such as cloud service providers (CSPs) or data providers are involved. There are also potential systemic risks associated with the use of AI which may encourage one way markets e.g. in trading activities, if many counterparties use the same types of models, leading to a convergence of outcomes and potential volatility or illiquidity spikes. A final risk is related to the use of inadequate data which may lead to bias or discrimination in the outputs of AI-based models.

An industry representative agreed that explainability is a potential issue, but stressed that it has been a regulatory requirement for years now and that related concepts and best practices are now clearly identified.

2. Objectives of the EU policy approach to AI

A policy maker stated that the European Commission has issued several policies that support AI and it is addressing the risks mentioned above with the proposed AI Act. No other economy in the world has such a comprehensive framework for AI on the table. The Commission is aiming with this initiative to give more certainty to companies regarding the use of AI, first with an identification of the techniques that fall under the AI Act framework (mainly ML approaches and expert systems) and secondly with a harmonization across the EU of the rules applying to AI. The second main objective of the AI Act is to create more trust for users in a context where AI systems have been demonised to a certain extent. The AI Act is a horizontal framework, with the same principles of e.g. explainability applying to all sectors, because risks of AI usage are the same. However, the specificities of the financial sector have been taken into account in the drafting of the legislation, as well as the existing financial regulations, to ensure that the AI Act does not overlap or contradict them, but rather completes existing regulation. A third aspect is that the AI Act is risk-based, which means that only applications that really present a high risk e.g. for the fundamental rights or safety of customers will be regulated. In the financial sector, only AI-based credit scoring and creditworthiness assessment systems are concerned; companies using these systems will be required to undertake tests before they are put in place to ensure that they are reliable and not biased.

The European Commission is also supporting the development of AI through its research programmes, the policy maker stressed. Dedicated testing and experimentation facilities have been put in place, as well as policies supporting the development of AI-related skills. Companies using AI should indeed have the necessary skills to implement an adequate risk management framework and should be able to use AI in an appropriate way.

The panellists were generally supportive of the risk based approach proposed in the AI Act. An industry speaker concurred with the objective of a human centric approach to AI respecting civil liberties and the fundamental rights of citizens and emphasized the need for a risk-based regulation of AI, because the risk of AI lies in its application, not in the technology itself.

A regulator stated that the AI Act is a positive development because a large part of existing financial regulation was drafted before AI existed, which might have created regulatory loopholes or inconsistencies that the Act will contribute to addressing.

3. Interaction between the AI Act and existing requirements

3.1 Existing EU guidance on AI

A regulator stated that insurers have been assessing how to price and evaluate risks on the basis of large data sets for decades. The EU insurance industry is adequately regulated, and governance principles regarding AI have already been published by EIOPA in this perspective; the principles in there are similar to those in the AI Act and include fairness, non discrimination, transparency and explainability. Providing explainability requires human oversight

(including by actuaries in the case of insurance), appropriate data management and recordkeeping, and also developing the capacity to explain the outcome of an AI based system and ensuring its continuous robustness and accuracy.

The regulator therefore felt that supervisors in the EU have adequate powers at present to supervise AI applications in the insurance sector through sectoral legislation and governance principles, although it cannot be excluded that new applications of AI may lead to an inclusion of insurers in the scope of the AI Act at a future stage.

3.2 OECD AI principles

An official stated that the AI Act proposal is aligned with the OECD AI principles. The OECD indeed considers that regulatory and supervisory requirements concerning AI should be examined in a proportional and contextual manner, depending on the criticality of the application, similarly to the risk-based approach of the AI Act. Lending was also identified by the OECD as an area of AI application that could potentially represent a high risk, given the possible material impacts on consumers.

One element of the OECD principles to highlight in relation to the objective previously mentioned of developing further awareness about AI use, are the transparency and responsible disclosure principles around the use of AI systems. Customers should be made aware that an AI mechanism was involved in the delivery of their service and they should be able to challenge any decisions supported by an AI based system if needed.

The official also emphasised the importance of 'human primacy' in decision-making or having a 'human in the loop', particularly in the case of high risk applications. For the sake of proportionality, human intervention is not necessary at every iteration of an AI or ML model, but it is necessary to ensure that governance and accountability mechanisms are in place and that models are appropriately validated and tested. There should also be 'kill switches' in place that allow the switching off of AI or ML models, particularly when they do not behave in the expected manner, as well as back-up plans with business continuity procedures in case an AI application is switched off.

3.3 EU data strategy and GDPR

Answering a question from the Chair about the rules needed in terms of data access and sharing to support AI uptake, an official stated that the EU Data Act should allow more data to be used in a structured and interoperable manner, which would contribute to the development of AI systems. The cross-border dimension of data access also needs to be considered. Questions might arise for example about data that is processed and held in other jurisdictions. It is important to have OECD guidelines in this perspective because they are a common international basis that could be built on. The applicability of the rules of the EU Data Act concerning data access and sharing will also need to be examined in an international perspective, as was previously done with GDPR.

An industry speaker added that the interactions between the AI Act and GDPR might need further examination. There could be some clauses in the AI Act that contradict some items of GDPR or other EU data regulations.

4. Issues that may require further clarification or emphasis in the AI Act proposal

4.1 Definition of high-risk AI applications

An industry speaker stated that further clarity around the definitions of what exactly is high risk and around the scope of implementation of the AI Act is necessary i.e. whether it should apply to generic use cases or case-by-case to certain components of a given application. The latter seems preferable in order to strike a proper balance between risk mitigation and supporting innovation. For example in the case of an AI-based system for granting loans, the regulation should apply to the AI model that makes decisions about the creditworthiness of customers and not to the components that contribute to the automation of the process. Technology will continue to evolve and having that type of flexibility or specificity in the approach to use cases will support a further development of the technology.

A regulator agreed with the suggestion that high risk applications should be addressed specifically and on a case by case basis and gave further illustrations. Using AI for an individual assessment of creditworthiness is indeed riskier than using it for the evaluation of an average risk posed by a large group of people based on the analysis of their data. And chatbots that may be used in the context of a credit application process should not usually be considered as presenting a high-risk.

A policy maker explained that the approach of the AI Act is meant to be flexible since the list of use cases and techniques covered by the legislation is detailed in an annex and can therefore be modified through a delegated act, without changing the Level 1 text. The objective is to make the legislation more futureproof because these rules concern technology that changes over time.

4.2 Supporting innovation in AI

An industry speaker stated that although the AI Act and its risk based approach are ground-breaking in many ways, Europe is behind the curve in terms of innovation in the area of AI. More emphasis needs to be put in Europe on the objective of ensuring the best leveraging of AI in a way that is good for citizens. There is an opportunity for Europe in this regard because it has a strong track record in setting rules and guidance for protecting the welfare of its citizens, and Europe might be able to impose these rules for AI internationally in the same way as was done for GDPR.

The futureproofing of the AI Act also needs more work, the industry speaker felt. For example, the focus is very much on the initial development of models in the present proposal, but the reality is that AI models will keep learning from themselves. Therefore, a question is how to regulate AI in an agile manner to preserve the agile innovation model of AI, which is a technology that

continues to evolve as it is used. This issue is not really tackled in the AI Act.

A policy maker observed that this issue has been addressed in the AI Act proposal. It is foreseen that if an AI system continues to learn once it is implemented and if that learning significantly modifies the behaviour of the AI system, then the user will be considered as a deployer of the AI system and will be subject to the same obligations as the initial deployer. That way, the feedback loop will be in place.

4.3 Accountability

A regulator stated that roles and responsibilities (e.g. concerning the respective roles of the prudential supervisor and the company management) need to be more clearly defined in the AI Act regulation in order to prevent confusion and overlaps.

An industry speaker suggested that the accountability part of the conversation on AI regulation needs to be developed further. Financial companies need to be accountable for the AI systems and the credit scores they use, but supervisors should also be accountable for the regulatory framework that is put in place. There are some requirements around the number of employees that should be involved in supervision, but specifying the skills that are needed for supervising appropriately AI systems and similar technologies would seem more relevant. More guidance is also needed around the tools that supervisors should use for supervising AI algorithms. A great deal of upskilling will also be necessary for supervisors and regulators to be able to really regulate AI, and this dimension is not currently sufficiently emphasised in Europe. More broadly, educating citizens about the potential benefits and risks of AI models should be a major political objective.

A policy maker stated that the AI Act identifies accountability quite precisely, notably for cases where something goes wrong. In the first place the deployer is accountable, but the user can also be made accountable in certain circumstances. A system for market surveillance has also been proposed that combines the domestic authorities of member states with surveillance authorities in charge of the different sectors covered by the AI Act that will be responsible for reacting if incidents happen. These authorities will also have the power to go through the documentation from the conformity assessment established by the AI's deployer in order to identify who is responsible for a given incident. More guidance regarding the roles and responsibilities of these different actors is needed, the speaker acknowledged; the Commission will ensure that this is clarified. In terms of awareness about the use of AI systems, the Commission also wants customers to know that they are dealing with an automated or AI-based system such as a chatbot for the sake of transparency.