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The robo-advice in insurance considering the EU Artificial Intelligence Act

Abstract

This essay considers the growing use of robo-advice in the financial sector and the push to extend its use to insurance products, particularly insurance-based investment products. Therefore, it analyzes the regulation of this advice in the current EU regulatory framework applicable to insurance. The aim is to understand how it fits the purpose of regulating the robo-advice properly. This analysis allows us to identify gaps and understand the possible effects of implementing the EU Artificial Intelligence Act on robo-advice provided for insurance products.

Key words: robo-advice, insurance distribution, insurance-based investment products, artificial intelligence

1. SETTING THE SCENE: HOW ATTRACTIVE ROBO-ADVICE CAN BE?

Robo-advisors use algorithms to analyze a user's financial situation, risk tolerance, and investment goals to provide personalized investment advice. This advice can range from asset allocation to portfolio rebalancing, all of which can be done automatically by the platform. Algorithms allow robo-advisors to provide investment advice at a lower cost than traditional financial advisors, making it more accessible for consumers. They are also expanding into insurance, providing consumers with more personalized insurance solutions.

Robo-advisors are typically developed as an automated interface to mimic customer interaction with human advisors (Maume, 2021). The process by which customers reach out to insurance intermediaries and receive advice is fully digitised. The technologies behind robo-advisors, however, can be quite different (Ostrowska, Balcerowski, 2020).

This essay aims to identify the issues arising from providing robo-advice on insurance to evaluate whether and how the EU Artificial Intelligence (AI) Act addresses them. Providing some preliminary empirical data on such advice seems appropriate to contextualize this investigation.

A recent consumer survey on robo-advice for life insurance revealed that more than 20% of respondents would use robo-advice for life insurance purchases in the future. Most respondents prefer to seek professional advice (44%) or conduct an independent search online (42%), but 10% identify robo-advice as their preferred advice source (SCOR, 2022). However, younger consumers showed more interest in robo-

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advice and a more positive attitude to the service. The income level does not influence the willingness to use robo-advice in the future, while differences exist regarding the level of education. The target market for robo-advice is the middle education group with some college or undergraduate degree, as those with higher education or postgraduate qualifications still prefer a professional advisor. The survey was carried out with a panel of U.S. consumers[1], so the results may differ from those of a European panel. However, the survey outlined that a robo-advice service can also support existing customers. This is already a feature of robo-advice for investments where the ongoing portfolio re-balancing is managed by the robo-advice service. Respondents showed a strong appetite for this ongoing review service for life insurance using robo-advice as they appreciate annual or tailored reviews as their needs change.

A leading consulting firm (McKinsey & Company, 2023) reported the following ways that the future of insurance is being shaped by insurtech and robo-advisors:

1. Improved customer experience as they have enabled insurance distributors to offer a more personalized customer experience, allowing customers to access insurance solutions tailored to their specific needs, which they can do quickly and easily.

2. Increased efficiency as they have helped to streamline the insurance process, making it faster and more efficient by reducing the amount of time it takes for customers to get insurance coverage.

3. Lower costs by automating many of the processes involved in insurance, making insurance more affordable for many people.

4. More accurate risk assessment leads to more accurate pricing of insurance products and services.

5. Improved fraud detection in the insurance industry led to a reduction in fraudulent claims, which has helped to keep insurance costs down.

Based on the above, customer trust in robo-advice will likely increase, especially when younger age groups have access to the money to invest. At the same time, insurance distributors will increase their commercial offerings through robo-advice to obtain the above benefits associated with this tool.

The EU regulatory framework can favour this trend as the IDD allows Member States to make the sale of insurance-based investment products mandatory with advice and sets forth the potential rule for all distributors, including those carrying out the activity under the freedom to provide services or the freedom of establishment when concluding insurance contracts with customers having their habitual residence or establishment in that Member State (see Article 20(3) of IDD).

On the other hand, scholars have pointed out that inaccurate advice provided by these intelligent systems may result in some financial losses or, in the worst-case scenario, unfairly barring a specific group of customers from accessing insurance or causing them to pay a significantly higher premium (Baker, Dellaert, 2018).

[1] The survey was answered by 463 respondents from diverse demographic groups in September 2021. All respondents are based in the U.S. with a spread by region representative of the population. There is an overweight towards females (63%) compared to the U.S. population (50.8%) and compared to the insured population where females tend to be under-represented. Most respondents are aged 35 to 74, which reflects the insured population. The proportion of retired respondents (25%) is higher than the U.S. population (14%) due to the age profile of the group.

Furthermore, the potentially harmful consequences of robo-advice to customers are amplified by the scale this automation makes possible (Baker, Dellaert, 2018).

These abstractly shareable concerns must be verified based on the regulations applicable to robo-advice, as the EU has not remained silent about this phenomenon.

2. HOW IS THE ROBO-ADVICE REGULATED IN THE EU?

The analysis of the EU regulations on robo-advice concerning insurance products will follow along two lines. The first illustrates the relevant rules that apply to the insurance sector. The second examines the specific rules on insurance advice.

Regarding the existing regulatory framework applying to the insurance industry, the risks of bias, discrimination and fairness that can arise from the use of AI seem to be adequately considered by the EU law.

Several laws aim to ensure that AI systems are free of bias and that the output does not result in discrimination or unfair treatment of people.

Discriminations based on ethnic origins and gender are prohibited, respectively, under Directive 2000/43/EC of 29 June 2000, implementing the principle of equal treatment between persons irrespective of racial or ethnic origin, and Directive 2004/113/EC on equal treatment between men and women in access to and supply of goods and services. Moreover, Regulation (EU) 2016/679 (hereinafter: GDPR) sets forth the principles relating to processing personal data, providing that personal data must be processed lawfully, fairly, and transparently manner in relation to the data subject (GDPR, Article 5). Also, IDD requires insurance distributors to specify, based on customer information, the customer's demands and needs (see Article 20).

The development and usage of AI systems must follow existing privacy and data protection rules while processing data that meet high standards of quality and integrity.

GDPR provides the right to object to automated decision-making (see Article 22), so ensuring that AI systems are developed and used as tools that serve people, uphold human dignity and personal autonomy, and function in a way that can be appropriately controlled and overseen by humans. Users must be informed when they engage with any AI system, and distributors must provide information about their rights and the capabilities and limitations of the system to ensure the traceability and clarity of AI output. Thus, GDPR mandates openness and transparency in data usage and processing (see Articles 5, 13 e 14), outlines principles related to data processing, including data adequacy, relevance, and accuracy (see Article 5), and requires maintaining records of processing activities (see article 30). Moreover, IDD requires insurance distributors to provide the customer with objective information about the insurance product in a comprehensible form to allow that customer to make an informed decision (see Article 20).

Finally, AI systems must comply with what is now required for all technologies to support insurance (and financial) activities, i.e., the system's governance must be accountable, and the system must be technically robust and safe. Thus, mechanisms that ensure awareness of responsibilities, accountability, and potential redress regarding AI systems must support the usage of AI systems. It means, in practice, the top management buy-in, organization-wide education, and awareness of individual responsibility.

Solvency II requires an effective system of governance, which provides for sound and prudent management of the business and includes, at least, an adequate transparent organisational structure with a clear allocation and appropriate segregation of responsibilities and an effective system for ensuring the transmission of information (Directive 2009/138/EC, Article 41). Moreover, IDD introduced product oversight and governance (Directive 2009/138/EC, Article 25), requiring manufacturers to assess whether the robo-advice provided by their distributors is consistent with the suggested distribution strategy. Therefore, in the case of robo-advice, manufacturers must monitor how algorithms process their products when they are distributed by the intermediaries that manufacturers have selected as being adequate for distributing through this tool. Suppose intermediaries want to fulfil their obligations to distribute the product in the best interests of their clients or to track and inform the manufacturer of the proper distribution of the products. In that case, they must also be aware of it (Marano, 2019). Also, Regulation (EU) 2022/2254 of 14 December 2022 on digital operational resilience for the financial sector (DORA) aims to consolidate and upgrade ICT risk requirements as part of the operational risk management to ensure that the financial industry can stay resilient in the event of severe operational disruption. Thus, this set of rules seeks to minimise unintended and unexpected harm, including those arising from AI systems. Therefore, distributors must ensure such systems operate as expected, remain stable, and can rectify user errors. They should have fallback solutions and remediation to address any failures to meet these criteria and be resilient against malicious third parties' attempts to manipulate the system.

In addition to the above rules, IDD does not describe how distributors approach their customers via an automated system or other tools, including the traditional face-to-face relationship (Köhne, Brömmelmeyer, 2018). Hence, distributing insurance through robo-advisors is within the scope of the IDD (Marano, 2019).

IDD regulates the insurance advice, i.e., the provision of a personal recommendation to a customer, either upon their request or at the initiative of the insurance distributor, in respect of one or more insurance contracts (see Article 2, para. 1, n. 15). In addition to the above "basic" advice, IDD regulates the impartial advice[2] or, in the case of insurance-based investment products (IBIPs), the advice provided on an ongoing basis, i.e., with a periodic assessment of the suitability of the IBIP recommended to that customer (Article 29, para. 1, let. a). This latter is particularly relevant for the AI systems. The reported survey revealed customers appreciate annual or tailored reviews as their needs change and, therefore, they have a strong appetite for an ongoing review service for life insurance using robo-advice.

On the other hand, the scale made possible by the automation needs to be adequately considered in the existing EU legal framework (Marano, 2021). Indeed, IDD does not apply to persons practising insurance distribution as an ancillary activity where a premium/risk size threshold is met (see Article 1, para 3). Intermediaries

[2] Article 20, para. 3, provides that "Where an insurance intermediary informs the customer that it gives its advice on the basis of a fair and personal analysis, it shall give that advice on the basis of an analysis of a sufficiently large number of insurance contracts available on the market to enable it to make a personal recommendation, in accordance with professional criteria, regarding which insurance contract would be adequate to meet the customer's needs".

exempted from the IDD rules are not subject to the supervision of insurance authorities and related administrative sanctions. Nature and size are adequate more than scale as criteria for identifying the relevance threshold for applying the IDD rules where the distribution is carried out face-to-face. However, the scale must be considered when related to online and automated distribution as it amplifies the number of customer relationships and the possibility of repeating the same mistake (Marano 2021). Thus, the exemption from the IDD rules is likely to increase distribution risks for insurers and be detrimental to customers to a greater extent for online activities than face-to-face activities that the EU legislator has mainly considered (Marano, 2021).

3. REGULATION OF AI: THE AI ACT

On January 22, 2024, the pre-final text of the European Union's Artificial Intelligence Act (Consolidated version of the AI Act, 2024) leaked online, and the upcoming law was finalised and endorsed by all 27 EU Member States on February 2.

This Act is the world's first comprehensive horizontal legal framework for the regulation of AI systems across the EU. The provisions of the AI Act are grafted onto the regulatory framework set out above and have a transversal application. AI Act follows a risk-based approach, differentiating between AI applications that potentially have low, limited, high or unacceptable risks.

Therefore, high-risk AI applications in insurance would be subject to specific regulatory requirements for a risk management system, data governance and management practices, technical documentation and record keeping (e.g. setting up automated logging capabilities to monitor system operation and risk occurrence and record the duration of use, the reference databases checked by the AI system and the identity of the people involved), as well as requirements on transparency and information, human oversight, accuracy, robustness and cybersecurity (PWC, 2022).

The insurance industry criticised the AI Act approach, claiming for an insurance-specific regulation (Geneva Association, 2023). Even without AI-specific regulation, AI in insurance is not in a vacuum; for example, it is already subject to data protection and insurance-distribution regulation (Geneva Association, 2023). At the same time, scholars pointed out the need to include some AI insurance applications for those considered to be high-risk (Marano, Li, 2023).

On the other hand, EIOPA expressed the opinion that the AI Act should identify the relevance of the use of AI in the financial and insurance sector but leave further specification of the AI framework to sectorial legislation (EIOPA 2022). EIOPA and national insurance regulators should further establish the requirements of transparency and non-discrimination for insurance distributors to make sure that AI systems are used ethically. Finally, they can take the lead in ensuring that relevant rules will not overlap or be too complex (EIOPA 2021).

The AI Act sets forth the AI systems provided for by Union law for the purpose of detecting fraud in the offering of financial services and for prudential purposes to calculate credit institutions' and insurances undertakings' capital requirements should not be considered as high-risk under this Regulation. Moreover, AI systems intended

to be used for risk assessment and pricing in relation to natural persons for health and life insurance can also have a significant impact on persons' livelihood and if not duly designed, developed, and used, can infringe their fundamental rights and can lead to serious consequences for people's life and health, including financial exclusion and discrimination (Consolidated version of the AI Act, 2024, Recital No.7).

To efficiently ensure that fundamental rights are protected, deployers of high-risk AI systems that are bodies governed by public law, or private operators providing public services and operators deploying certain high-risk AI system referred to in Annex III, such as banking or insurance entities, should carry out a fundamental rights impact assessment prior to putting it into use (Consolidated version of the AI Act, 2024, Recital No. 58g). Accordingly, Annex III listed the high-risk systems and included those intended to be used for risk assessment and pricing in relation to natural persons in the case of life and health insurance.

Appropriately, the AI Act recognises that EU legislation on financial services includes internal governance and risk management rules and requirements which apply to regulated financial institutions in providing those services, including when they use AI systems (see Recital No. 80). Thus, the competent authorities for the supervision and enforcement of the financial services legislation, including those as defined in Solvency II and IDD, should be designated, within their respective competencies, as competent authorities to supervise the implementation of the AI Act, including for market surveillance activities, as regards AI systems provided or used by regulated and supervised financial institutions "unless Member States decide to designate another authority to fulfil these market surveillance tasks" (Consolidated version of the AI Act, 2024, Recital No. 80).

The latter provision can add a layer of complexity without any apparent benefit, while the choice to make the authorities on AI and insurance coincide is undoubtedly appreciable.

Based on what the essay has reported, the insurance regulations are sufficiently detailed to ensure the protection sought by the EU legislator in regulating AI. Using AI systems in insurance advice requires fine-tuning existing sector rules rather than introducing new standards.

The essay outlined the central gap in the current regulatory framework on insurance distribution, which consists of the entities falling into its regulations. IDD need to be revised to consider the scale of the distribution activity when carried out online, including through robo-advice. The existing threshold excludes some ancillary intermediaries from the insurance distribution rules.

The possible choice to continue to exclude these intermediaries should entail an explicit obligation on the insurers whose products they distribute to supervise these intermediaries when they carry out their activity online, at least in the case of robo-advice.

On the other hand, EU legislator should consider excluding these intermediaries from distributing life and health insurance products as these areas are highly risky when using AI to distribute such products.

4. CONCLUSION

This essay considered the trend to use robo-advice for insurance products, particularly insurance-based investment products. Therefore, the paper analysed the regulation of robo-advice in the current EU regulatory framework applicable to insurance. This analysis revealed the gap consists merely of the need for more consideration of the scale of insurance distribution when carried out online. The EU Artificial Intelligence Ac on robo-advice identified the use of AI for life and health insurance as highly risky, and the EU legislator should consider the scale of online distribution, including the activity carried out through robo-advice when reviewing the IDD.

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