Position Paper

Insurance Europe response to the ESAs joint discussion paper on big data

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Introduction

Insurance Europe welcomes the opportunity to comment on the European Supervisory Authorities' (ESAs) joint discussion paper on the use of big data by financial institutions.

Insurance Europe shares the ESAs' view that technological innovations are changing people's lives faster than ever before. Of particular significance is the massive amount of data generated by a range of devices, from cars to smartphones. The speed of digitalisation and the related growth in amounts of data is expected to continuously increase.

Yet, big data analytics and the use of predictive modelling are not new concepts in insurance. Actuaries already analyse large sets of data to identify correlations and predict future events, such as mortality tables, to price life insurance products.

With technological advances, the wealth of data and computing power is changing, which, in combination with advanced data mining and analytics tools, enable insurers to adopt new business approaches and products, enhancing existing internal models, processes and services.

Insurance Europe agrees with the ESAs joint discussion paper that the increasingly sophisticated data analytics tools open up a world of exciting possibilities, such as insuring new risks, offering more tailored-products and better loss prevention advice to consumers. However, the use of these tools in insurance is still in its infancy and it is difficult to predict which specific innovative uses of data will prove successful and how widespread their adaptation will become in the market.

This will depend on various factors, such as the attractiveness of innovative product offerings to consumers, or the advantageousness of the new tools compared to current practice. Other factors like consumers' willingness to share their data with the insurers but also the quality and accuracy of the data, are also expected to play a significant role. In the following sections, Insurance Europe highlights its preliminary views on the possible benefits and risks that big data may bring to consumers, and on why the existing EU legal framework is appropriately addressing the issues described in the joint discussion paper.

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Section I – Definition

Big data broadly refers to data sets so large and complex that they cannot be handled by traditional data processing software. Big data can be defined by the following attributes:

- Volume: the increasing amount of data coming from a wide range of sources, including sensors used to gather climate information, posts on social media sites, digital pictures and videos, purchase transaction and records, software logs, GPS signals from mobile devices.
- Variety: the data is generated in multiple forms as a mix of unstructured and structured data.
- Velocity: data is created, saved, analysed and visualised at an increasing speed, making it possible to analyse and visualise high-volumes of data in real time.
- Veracity: it is essential that the data is accurate to generate value.
- Value: the insights gained from big data can help organizations deepen customer engagement, optimize operations, prevent threats and fraud, and capitalize on new sources of revenue.

Section II- Potential benefits of big data in insurance

The increasing volume and more sophisticated data and data analytics enable insurers to increase their understanding of consumers' needs and preferences in order to provide them with products and services that are better adapted and tailored to their particular circumstances, including better loss prevention advice to consumers. Big data also contributes to better risk assessment and greater insurability. Moreover, real-time data means policies and premiums that can be adjusted far more quickly to reflect changes in consumers' behaviour or circumstances.

- **Tailored policies**

Motor insurance/ telematics

- Motor insurance premiums are calculated using basic information, including vehicle type, distance driven, driving behaviour, claims history and age of the driver. New technologies, such as telematics, with its real-time, wireless transmission of data, can give insurers a much better understanding of consumers' driving. Therefore, big data could make it easier to refine a driver's risk profile in comparison to the status quo.
- For instance, already today, information from the "black box" technologies installed in vehicles enables insurers to offer a wider range of products that are tailored to consumers. This includes policies based on the time consumers spend driving (pay as you drive policies) or the way they drive (pay how you drive policies). For some consumers — such as careful young drivers who lack experience — this could mean lower premiums.

Property insurance/ smart meters

- As with motor insurance, property premiums have traditionally been calculated based on information about a property's structure and its level of exposure to crime or weather-related events. Insurers are constantly expanding their sources of data and the analysis they apply to them to create increasingly sophisticated, predictive risk-modelling tools that improve the accuracy of a property's risk profile. The more data, the better the predictions and the higher the availability of tailored insurance policies.

- **Prevention**

Helped by big data analytics, insurers are better able to advise consumers on the right prevention measures they need to implement to reduce risk, which in turn can make their properties more insurable.

Property insurance/ floods

- Prevention is one of the cornerstones of any insurance scheme. It is embedded in the practices of the private insurance sector, which has gained much expertise in this area. This is especially true for floods and other weather-related disasters. Without adequate prevention measures in place, certain properties would be very difficult to insure.

Health insurance/ wearables

- Individuals today can gain more knowledge of and control over their health and well-being than ever before, thanks in part to the use of health apps and "wearables" that monitor everything from sleep patterns to levels of exercise.
- The use of this new technology can be especially relevant to health insurance. Several insurers offer disease management programmes for people with chronic diseases such as diabetes or coronary heart disease. It is possible to monitor the individuals' health and provide them with lifestyle tips and health advice. Thus, consumers become more aware of the preventive measures they need to take to reduce risks associated with chronic diseases and control medical costs. These sources of data can allow insurers to price risks more accurately by using data showing how healthy and active a person is.
- In the long run, individuals' greater involvement in and better understanding of their own health and wellbeing as a result of using such devices and programmes could lead to healthier lifestyles, increased longevity and more optimal use of medication and deployment of medical staff.

Section III – Potential risks of the use of big data

Today's advanced analytics in insurance can go much further than traditional underwriting and actuarial science. Big data is expected to improve pricing and risk segmentation. For instance, direct measurement of driving behaviour provides new rating factors and transforms motor insurance underwriting and pricing processes.

In the joint discussion paper, the ESAs have expressed concerns over the potential detrimental impact that these changes could have on consumers, particularly in terms of access to financial services because of the too granular segmentations of risk.

- **Improved risk assessment and risk segmentation**

Insurance Europe believes that the improvements in risk assessment offer a clear benefit to consumers in that it can lead to more accurate pricing of the risk for the individual and in turn to increasingly affordable products for many consumers.

This being said, in some circumstances more accurate pricing could result in an increase in risk segmentation, which may render insurance more expensive for some consumers. However, so far there is no sign, that insurance might become unaffordable for certain groups of insureds, and insurers have every incentive to offer attractive insurance products for all segments of the population.

Additionally, Insurance Europe does not share the view that more granular pricing leads to reduced risk pooling. Rather, in line with the principle that homogenous risks should pay homogenous prices, more granular segmentation should lead to reduced cross-subsidies. This should not affect (re) insurers' ability to pool risks. This is due to two main reasons:

- even with a wider availability of data sets for analysis, big data analytics is not able to predict with absolute accuracy the occurrence of a damage;
- the application of the mutuality on a large population of insureds can cover more dangerous risks thus giving the insurer the possibility to manage a more balanced portfolio and carry out a more prudent underwriting.

On the contrary, Insurance Europe believes that big data has a high potential to increase the offerings available to consumers by allowing more micro-segmented, focused and reliable risk pricing, as well as exposing those ways in which consumers can reduce their risk to improve their premium. These developments will allow firms to offer innovative products to specific market sectors to fill niche requirements expanding the range of policies and also the ability of consumer to tailor these policies to individual requirements.

- **Access to financial services**

The ESAs also argue that big data allows profiling of customers into clusters, and that the consumer, who would refuse to share their personal information, could be left out of these clusters. This would result in consumers not being offered certain products, or products not suitable for them, and them not being able to transfer their data. However, so far, we observe that the new technological advances open up new ways to access insurance that complement the traditional options.

The ESAs should also not forget that consumers have an obligation to disclose relevant personal information to the insurer when seeking an insurance contract. In the pre-contractual phase, the potential parties to an insurance contract are bound to give each other material information. Similarly, EU legislation such as the Anti-money laundering Directive, poses an obligation on insurers to know-your-customer in which case the insured needs to disclose a series of personal information.

On the other hand, the recently adopted Insurance Distribution Directive (IDD) has put in place extensive rules on product oversight and governance, to protect consumers from unfair treatment or offer of unsuitable products. Finally, the General Data Protection Regulation (GDPR) and the Article 29 Working Party guidelines on data portability ensure that consumers are able to transfer personal data and switch between insurers.

- **Consumer awareness**

The ESAs argue that consumers may be unaware of the way their personal data is processed in the big data context. This could eventually lead to consumers' unwillingness to share data with insurers due to the lack of trust.

Insurance Europe believes that the existing legal framework, especially the recently adopted GDPR, is adequate to address such issues. In particular, the GDPR provides consumers with the necessary tools to get the information and clarifications they are seeking for, but also exercise their rights to object to the processing of their data and to erasure.

Section IV – existing legal framework

Insurance Europe believes that the concerns identified in the ESAs joint discussion paper are not always linked to the use of big data analytics. Rather, the analysed risks are related to the nature of the insurance business, regardless of the technological developments. Insurance Europe considers that these risks can be adequately addressed by the existing legal framework (including the IDD and GDPR that will both become applicable in 2018) as mapped by the ESAs in the joint discussion paper.

Recommendations

Insurance Europe encourages the ESAs to keep monitoring the developments in the area of big data analytics and continue the dialogue with all stakeholders, including the insurance industry. Insurance Europe believes that the identified risks can be adequately addressed by the existing legislation. Nonetheless, the ESAs should promote a well-functioning consumer protection framework and allow market participants to harness the benefits that arise from financial innovation.