Gabriel Bernardino Chairman

European Commission Mr Olivier Guersent Director-General DG FISMA Rue de Spa 2 B-1000 Brussels



EIOPA-BoS/17-146 16 June 2017

Response to the Commission's public consultation on FinTech: A more competitive and innovative European Financial Sector

Dear Mr Guersent,

EIOPA welcomes the possibility to respond to the Public consultation on FinTech: A more competitive and innovative European Financial Sector.

Digitalisation / InsurTech is of strategic importance for the insurance and pensions sector. It has an impact in all of the areas of the value chain. Consumers now can often purchase insurance products online including through smart phones at any time and from any place. Consumers are also benefitting from the design of more personalized products and services, thanks to greater use of big data that helps insurance undertakings better understand consumer's needs and characteristics.

Moreover, the greater availability and capacity to process data also enable the development of more efficient underwriting and claims management processes. In this increasingly digital environment, InsurTech firms / start-ups are also more and more present in the insurance sector, very frequently via cooperation agreements with established insurers.

There are also some risks arising from digitalisation that supervisory authorities need to examine very carefully. This is for instance the case with possible price discrimination issues or with vulnerable consumers' access to insurance. Digitalisation could also lead to an increasingly fragmented insurance value chain, raising challenges from a supervisory perspective, similar to the increasing exposure of undertakings to cyber risks.

In view of the above, EIOPA is closely monitoring these developments; it has published an opinion on sales via the Internet as well as best practices report on comparison websites. Furthermore, together with the other ESAs, EIOPA has developed a report on automation of advice, and is currently looking at the topic of the use of Big Data by financial institutions.

It has become increasingly clear however that digitalisation is raising a wider range of issues and aspects, and therefore EIOPA's Board of Supervisors extensively discussed Big Data and supervisory approaches to InsurTech during EIOPA's 2017 Strategy Day, with the aim to create a shared vision on these topics and agree further work for 2017 and beyond. EIOPA has also recently created an

interdepartmental digitalisation team, gathering knowledge and expertise across the different teams within the Authority.

Moreover, in April 2017 EIOPA also organised its first InsurTech roundtable to discuss with stakeholders the benefits and risks of digitalisation for the industry and consumers as well as potential obstacles to effective innovation. EIOPA is in a unique position to serve as a forum for such exchanges between supervisory authorities, consumers, incumbents, start-ups, academics, and IT experts on the impact of digitalisation in the insurance and pensions sector, and so plans further roundtable discussions.

Going forward, EIOPA will also continue to monitor digitalisation developments and address key aspects through its Consumer Trends and Financial Stability reports. Furthermore, EIOPA will also continue considering emergent supervisory issues, including in the areas of Big Data, cyber risks and supervisory approaches to financial innovation.

The existing and future work of EIOPA is set out in more detail in the Annex to this letter, together with other topics also addressed in the consultation paper relevant for the insurance and pension sectors. This includes automation of financial advice, block-chain, artificial intelligence, and peer-to-peer insurance. While it is still early days for some of these financial innovations, EIOPA will closely monitor them in view of their potential impact and take action as relevant.

EIOPA looks forward to continue cooperating with the European Commission, ESMA, the EBA and other national and international institutions in its upcoming work on InsurTech.

Yours sincerely,

Gabriel Bernardino

[signed]

ANNEX

1. Big data and the Internet of Things

The Joint Committee (JC) of the ESAs is currently assessing the use of Big Data by financial institutions.¹ The final report is expected to be published in the course of 2017. The preliminary assessment suggests that there are multiple benefits linked to the use of Big Data processes, but also some risks.

For insurance undertakings, data processing has historically been at the very core of their business, which is rooted strongly in data-led statistical analysis. Data has always therefore been collected and processed to inform underwriting decisions, to price policies, to evaluate and settle policyholders' claims and benefits, as well as to detect and prevent fraud. There has long been a pursuit of more granular datasets and predictive models, such that the relevance of the Big Data phenomenon for the sector is no surprise.

The use of Big Data processes in insurance enables more granular segmentation of risks, increases the effectiveness of risk identification, and also pricing that is more risk-sensitive. This allows the reduction of underwriting costs and uncertainty, greater resilience, and potentially expanded market availability for some consumers. For instance, regarding the latter, young drivers installing telematics devices in their vehicles reportedly often pay lower premiums. Big Data has also reportedly increased access to health insurance coverage for individuals with diabetes.

Other benefits arising from Big Data and telematics in insurance for consumers may include the development of more personalized products and services adapted to each consumer's needs, characteristics and behaviour. For insurers, enhanced fraud analytics improve the detection and investigation of fraudulent practices, thereby reducing costs, and digitalised and automated processes (e.g. in the area of claims handling) can enhance firm's internal efficiencies, reduce operational costs and claims handling times. Some respondents to the public consultation also mentioned the potential use of Big Data techniques for supervisory processes.

There are also some risks that appear to be emerging from the increased use of Big Data. In competitive markets, consumers with a higher risk profile may face access issues / exclusion as a result of enhanced risk assessments. This can include impacts from combining personal and non-personal information. It is in the supervisors' interest that insurers set their tariffs in a risk-appropriate way in order to strengthen the financial position of insurance undertakings and consequently protect policyholders. However, the topic can be particularly sensitive from an "ethical" / fair treatment perspective where information is being used to price risks that do not reflect the behaviour or choices of the individual or in the case of compulsory insurance.

Such considerations are behind the existing ban on the use of certain information such as genetics data for insurance underwriting in health and life insurance in several EU Member States. However, nowadays consumers may make choices themselves in view of such data to the disadvantage of insurance undertakings. Access issues have also manifested, still at a reduced scale, in other lines of business such as household insurance; in 2016 the UK

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¹ Discussion Paper on the Use of Big Data by Financial Institutions, December 2016, [Link]

government created Flood Re to ensure the availability and affordability of household insurance for people who live in areas highly exposed to flooding.²

New data sources also enable new non-risk based pricing techniques (e.g. based on analytical data showing a customer's likely willingness to pay more, or demonstrating his/her inertia to switch products) which can also raise questions about the fair and equal treatment of consumers. Other issues identified include the potential fragmentation of the insurance value chain; undertakings are increasingly outsourcing certain operations to IT firms (e.g. data vendors), which raises issues around possible unauthorised disclosures of personal information or regarding the liability allocation and the supervision of these entities which may not be directly regulated. The increasing digitalisation of processes and data flows also increase the exposure to cyber risks.

In the context of the above-mentioned JC work, EIOPA is currently assessing with the other ESAs whether legislation such as the upcoming General Data Protection Regulation (GDPR),³ the Insurance Distribution Directive (requirement to treat customers fairly and POG Guidelines),⁴ Solvency II (requirement to establish sound internal mechanism and effective procedures of risk assessments)⁵ as well as legislation from the other sectors are sufficient to mitigate the risks identified. As agreed during EIOPA's Strategy Day, EIOPA will also consider further action specific to the insurance sector as needed, including a more in-depth assessment of how insurance undertakings (both incumbents and start-ups) use Big Data.

2. Cyber Security and Impact of Fintech on Financial Stability

Cyber Risks and Cyber Insurance

One of the risks identified by the ESAs in its Discussion Note on the use of Big Data by financial institutions is the greater exposure to cyber-attacks. EIOPA has also recently underlined this risk in its Financial Stability report. Note that cyber risks represent both a threat and an emerging opportunity for the insurance sector.

Cyber risks affect insurance incumbents, start-ups as well as any other actor of the economy using digital tools. In terms of risks faced by policyholders and the industry, EIOPA identifies a broad scope of threats. Cyber incidents are particularly dangerous because of risk multiplier effects: they are not only a risk themselves, but also one of the causes of other top business risks, such as business interruption, supply chain risk, and loss of reputation. The financial loss can be irreversible especially in the latter case. More general solvency issues can be triggered by the high legal costs involved in cases of data breach and fraud, driven by notifications, litigation, redress and resolution costs.

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² Flood Re [<u>Link</u>]

For instance, see measures relating to the principle of accountability (Article 5), profiling (Recital 71 and Article 9), consent (article 7 and Recitals 32, 42 and 65), data portability (Article 20 and Recital 68 and 73), data protection by design (Article 25 and Recital 78), codes of conduct (Article 40) etc. which shall be complemented with Article 29 Working Party's opinion and guidelines such as its 2013 Opinion on purpose limitation.

⁴ For instance, see Article 17 and Article 25

For instance, see Article 41 and Article 38

⁶ Financial Stability report, EIOPA, June 2016, [Link]

At present, there is limited information available about the cyber insurance market in Europe, as cyber insurance products (creating a risk transfer to the insurance sector via underwriting of cyber risk policies) are still relatively new. Unlike other types of insurance, there is no standard methodology for pricing, while the typical inclusion of restrictive conditions in the products poses an additional limitation on their uptake. Furthermore, it should be considered that the accumulation risk of cyber insurance can be significant. Having said this, the increasing number of incidents and new regulatory initiatives in the European Union are expected to boost the demand for cyber insurance.

In general, data on cyber risk is scarce as institutions seek to avoid making breaches public for reputational reasons. Therefore, more action is needed to further mitigate increasing risks, for instance in the area of digital identity (theft, etc.). Greater information sharing about cyber incidents would allow more appropriate identification of risk mitigation. Greater transparency and standardisation of information would also enable better pricing of cyber insurance products. However the topic of information sharing needs to be assessed taking into consideration the confidentiality of certain information regarding cyber incidents. The new reporting requirements under the GDPR as well as the specific national arrangements for sharing information about cyber risks under national computer emergency response teams (CERTs) also need to be taken into account.

EIOPA is currently looking at the topic of cyber risk in the context of the EU-US insurance project. Furthermore, EIOPA is considering steps to further explore an EU-wide view by initiating a dialogue with the industry and relevant competent authorities in order to better understand the risks, their impacts as well as new opportunities and challenges that it implies for the sector. Further steps could thereby include proposals for mitigations and extended active dialogue. The inclusion of cyber risk within the EIOPA sectorial vulnerabilities analyses is also to be further explored.

Impact of Fintech on Financial Stability

Digitalisation, or more specific Fintech and/or InsurTech have transformative implications for the whole financial system. Depending on the scope and dynamic of such transformations, they could have disruptive effects on the existing market environment. As explained in EIOPA's June 2016 Financial report, the financial sector is highly interconnected, disruptions from different segments of financial sectors might spill-over into the insurance sector, and vice-versa.

However, it is important to highlight that disruption is a hypothetical and extreme case scenario. To date, InsurTech developments have mainly focused on distribution channels, which in some jurisdictions were already quite fragmented. Other areas of the insurance value chain are now starting to also be impacted by InsurTech, although the impact is still limited. At this moment

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⁷ EU-U.S. Insurance Project started in early 2012, when the European Commission (EC), EIOPA, the US National Association of Insurance Commissioners (NAIC) and the Federal Insurance Office of the U.S. Department of the Treasury (FIO) agreed to participate in a deeper dialogue to contribute to an increased mutual understanding and enhanced cooperation between the EU and the U.S. to promote business opportunity, consumer protection and effective supervision. The Federal Reserve Bank (FRB) has since joined the EU-U.S. Insurance Project.

in time, it is probably more accurate to talk about "reshaping" the insurance landscape rather than "disrupting" it.

Moreover, at the same time that start-ups might be seen as new competitors, some insurance companies also see possibilities of business cooperation with them by establishing partnerships. This can mitigate disruptive impacts leading to a more evolutionary rather than revolutionary outlook. Arguably, a greater impact could be produced if large technological/internet entities decided to enter the insurance market on a large scale, based on business models utilising their already existing large customer base combined with their digital and data analytics capabilities enabling them to offer more personalised products and more accurate, but also smaller risk pool segmentation. This kind of competition could potentially lead to some market disruptions, especially if the competition is stemming from less-regulated third-countries.

Another relevant aspect from financial stability point of view is regulatory challenges that might arise from a highly fragmented insurance value chain. This can bring complexity and make overall risks harder to capture, though it can also increase resilience and reduce the impacts of individual failures. Furthermore, as a growing part of the sector might not be included in the same regulatory framework, this might increase risks of regulatory arbitrage. It is therefore necessary to assess the impact of financial innovations on the application of existing legislation such as possibly Solvency II's requirements on the supervision of outsourced functions and activities (Art. 38) and adapt them as necessary.

Finally, a certain level of standardisation on the information collected by sensors and devices, which are being used in motor, health and home insurance products in some jurisdictions, is also a relevant issue. Indeed, data standards could reduce vendor lock-in, facilitate portability of data recognised in the GDPR, and enhance competition in the overall market.

3. Supervisory approaches to financial innovation

In today's globalized and digital economy, innovation is a source of growth and a key competitive factor. In this context, EIOPA considers that it is necessary to strike a balance between ensuring a well-functioning consumer protection framework and financial stability, and at the same time allowing stakeholders – including consumers - to harness the benefits of financial innovation.

EIOPA fully endorses the need to respect key supervisory principles such as technological neutrality, activity based approach, proportionality, and market integrity mentioned in the consultation paper. However the definition of the principle of market integrity should cover important issues such as responsibility and accountability. The use of innovation in the financial sector, and concretely in the case of the insurance sector, has been raising issues that demand a clear allocation of responsibilities (e.g. in the case of automated driving). In addition, EIOPA considers that consumer protection must also be at the heart of any activity adopted by supervisory authorities, including regarding financial innovation.

A number of supervisory authorities, both in Europe and abroad, have recently adopted a series of innovative regulatory initiatives aiming to foster financial innovation in their respective jurisdictions. In this regard EIOPA has already started a mapping exercise of these activities in the insurance and pensions

sector amongst its Member and Observers, with a view to determining bestpractices and also in view of avoiding disorderly regulatory competition.

Moreover, the Solvency II Directive explicitly states that its rules need to be applied proportionally to the nature, scale, and complexity of the risks inherent in the business of an insurance or reinsurance undertaking, in particular (but not limited to) to small insurance undertakings.⁸ EIOPA will discuss with its Members and Observers how this principle is being applied in practice specifically in the area of financial innovation (e.g. regarding InsurTech startups), also with a view of determining best-practices.

4. Automation of financial advice

Within the Joint Committee of the ESAs, EIOPA reviewed the topic of automation in financial advice. The report, published on 16 December 2016, describes the main risks and opportunities of automation in financial advice. One of the main benefits was the reduced costs for consumers when they obtain advice through automated tools, which would therefore contribute to make advice more affordable. Consumers could also benefit from access to a wider range of products and services.

As far as the risks are concerned, issues identified included consumers potentially being exposed to unsuitable decisions as a result of lack of information or reduced opportunities to fill the gaps or seek clarifications when they interact with automated tools; or because of errors and/or functional limitations in the tools. Firms providing these services could therefore be more exposed to litigation due to faulty automation. Legal disputes could also arise due to unclear allocation of liability between different providers.

The majority of respondents in the public consultation confirmed the benefits and risks identified, although some emphasised other factors, for instance those impacting uptake, such as the considerable initial investments required by automated advice tools, as well as their maintenance costs. Respondents also confirmed the risks identified, although some highlighted that the extent to which advice is automated differs between different business models; 'hybrid' models combining automated advice with an element of human advice are currently more common than fully automated tools, which would then also impact the likelihood of certain risks materializing.

The Joint Committee of the ESA's report concluded that the evolution of automated advice should be monitored further, also in view of its regulatory treatment.

In insurance, the regulatory requirements when providing advice under the Insurance Distribution Directive¹⁰ (hereinafter IDD) do not vary by distribution channel. In its Technical Advice¹¹ on possible delegated acts under the IDD, EIOPA stated the following with regard to the assessment of suitability:

"When advice on insurance-based investment products is provided in whole or in part through an automated or semi-automated system, the

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⁸ Article 29 Solvency II Directive

⁹ Report on automation in financial advice, Joint Committee of the ESAs, December 2016 [Link]

Directive (EU) 2016/97 of the European Parliament and the Council of 20 January 2016 on insurance distribution (recast) [Link]

¹¹ Technical Advice on possible delegated acts concerning the Insurance Distribution Directive, EIOPA, January 2017, [Link]

responsibility to undertake the suitability assessment shall lie with the insurance intermediary or insurance undertaking providing the service and shall not be reduced by the use of an electronic system in making the personal recommendation."

EIOPA expects that all regulated activities, such as insurance distribution, meet the relevant regulatory requirements. However, since the importance of automated advice is expected to increase in the coming years, EIOPA will continue to monitor the market. This year's EIOPA Consumer Trends report¹² will specifically assess the use of automated advice tools in the pensions sector.

5. Block-chain, artificial intelligence and peer-to-peer insurance

The topics of block-chain, artificial intelligence and peer-to-peer insurance were discussed during the InsurTech Roundtable¹³ that EIOPA organised on 28 April with stakeholders from the insurance industry. While the implementation of the three topics (particularly the first two) is still relatively new in insurance, stakeholders suggest they all have great potential in the sector.

Similar to the topic of Big Data, and notwithstanding specific sectorial legislation, the GDPR is also expected to influence the development of these financial innovations. Indeed the GDPR will include relevant new provisions with regards to consumers' consent to the processing of personal data, right to be forgotten, information obligations, consumer profiling, etc.

EIOPA is currently monitoring the evolution of these topics and has not yet undertaken a comprehensive assessment of them. The feedback below mainly reflects the outcome of the discussions with stakeholders during the InsurTech Roundtable.

Block-chain

A number of solutions are being developed in the insurance sector based on block-chain – and more generally distributed ledger technology. Reported use cases in insurance could include record keeping (e.g. digital certificate of ownership for physical assets), and smart contracts (e.g. parametric insurance contracts or travel insurance).

Block-chain could reportedly also be used in the areas of transfer value (e.g. clearing and settlement of securities) or peer-to-peer insurance. Block-chain will likely first be implemented in commercial lines and in the reinsurance business, since the latter are not affected by privacy issues such as the right to be forgotten recognised in the upcoming General Data Protection Regulation.

Moreover, EIOPA notes from discussions with stakeholders that block-chain could be an answer where improvements to the cross-border recognition of claims history statements (which are used to calculate no-claims bonuses) are considered. Where the Consumer Financial Services Action Plan (COM (2017) 139) foresees such considerations, block-chain technology could offer an innovative way to complement or leap beyond paper-based claims history statements.

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¹² Fifth Consumer Trends Report, EIOPA, December 2016 [Link]

¹³ A report summarizing the outcome of the roundtable is expected to be published in June 2017.

Peer-to-peer insurance

The definition of peer-to-peer (P2P) insurance implies a pooling of peer groups. The size of the group depends on the type of insurance and the expected benefits to be generated. However, the definition of P2P insurance is sometimes misleading, since its difference from traditional mutual insurance is not always evident and also it does not work as a two-sided platform like other peer-to-peer models.

P2P insurance can be provided either directly through an insurer or through a broker/intermediary. Other reported characteristics of P2P insurance include improved digital customer experience, transparency and empowerment of policyholders. This may lead to more responsible behaviour from consumers, including reduced fraud, and improved risk management.

From a regulatory standpoint, EIOPA will assess whether there is a need for clarifying the legal status of a peer group or the capital fund created with the contributions of the individuals to pay future claims (currently P2P insurance needs to be provided in cooperation with a licensed insurance undertaking), and whether there are perimeter issues arising over the definition of 'insurance'.

<u>Artificial intelligence</u>

Notwithstanding the use of artificial intelligence in automation of advice (see above), artificial intelligence is currently being developed and used in a wider range of use cases. It has a greater potential in the areas of claims management and fraud detection, although it can also be applied in other areas such as in tariff determination, intelligent routing, and complaints management.

From a supervisory perspective, EIOPA acknowledges that several of the supervisory challenges posed by artificial intelligence would be similar to those identified in the context of Big Data (for more details see further above). Understanding better the risks and opportunities of its individual applications will be EIOPA's priority. Moreover, special attention would need to be given, inter alia, to privacy issues (as it has to be given in the context of Big Data which is the underlying basis for Artificial Intelligence) as well as to the transparency and reliability of the algorithms and statistical techniques used. Finally, automated cars powered by AI technology raise the question in insurance about who should bear the liability in case of an accident - i.e. the driver or the manufacturer of the automated car.