

EMF Response to the Joint Committee Discussion Paper on the Use of Big Data by Financial Institutions

Brussels, 4 April 2017

1. Introduction

The EMF-ECBC¹ welcomes the opportunity to comment on the Discussion Paper launched by the Joint Committee of the European Supervisory Authorities (ESAs) on 19 December 2016 in relation to the use of big data by financial institutions. In this respect, we would like to thank you in advance for taking into account our feedback as outlined below.

As a general remark at this early stage in the discussion on 'big data', the EMF-ECBC would like to stress that the Mortgage Industry recognises its responsibilities when using 'big data' and commits to using data responsibly and in the appropriate manner.

2. Specific Comments

Question 1: Do you agree with the above description of the Big Data phenomenon? If not, please explain why. Please also mention whether you consider that other characteristics are relevant to understanding the use of Big Data.

The EMF-ECBC generally agrees with the ESAs' description of the Big Data phenomenon and recognises the importance of this new tool. However, whilst much emphasis is placed on new aspects of this phenomenon, aspects of current industry practices seem to be considered to a minor extent. This is the case with traditional data mining, for example.

Therefore, it may be helpful to further broaden the definition for the Big Data phenomenon. As Big Data is almost inherently connected to the cloud, and to the automatic and fast adoption of new data to the analysis model without human intervention, making a reference to the cloud or event blockchain technologies could be useful.

At the same time, the Big Data phenomenon commonly characterised by the extensive collection and further processing of personal information may give rise to serious privacy concerns. In order to allow for all the benefits of analytics without invading individuals' privacy, it could be useful to indicate certain limits to big data processing and integrate appropriate data protection safeguards in the core of the analytics value chain.

On the other hand, hampering the use of Big Data could not only have a negative influence on innovation of new products and services, and competition practices among financial institutions, but it could also impede innovation which would be otherwise beneficial to consumers. This holds true in the field of cyber security or fraud, for example, or in relation to offering most suitable financial advice to consumers.

¹ The European Mortgage Federation-European Covered Bond Council (EMF-ECBC) represents the covered bond industry, bringing together covered bond issuers, analysts, investment bankers, rating agencies and wide range of interested stakeholders. The ECBC was launched by the European Mortgage Federation (EMF) to promote the interests of covered bond market participants at international level. As of March 2017, the ECBC brings together over 100 members from more than 25 active covered bond jurisdictions representing over 95% of covered bonds outstanding, which were worth nearly 2.5 trillion EUR at the end of 2015.

Question 2: Which financial products/activities are (likely to be) the most impacted by the use of Big Data and which type of entities (e.g. large, small, traditional financial institutions, Fintechs, etc.) are making more use of Big Data technologies?

In light of ESAs' objective to contribute to the stability and effectiveness of the financial system, to prevent regulatory arbitrage, do you consider that there is a level playing field between financial institutions using Big Data processes and those not using them (e.g. because they do not have access to data or the (IT) resources needed to implement Big Data processes) or between established financial institutions and potential new entrants (e.g. Fintechs) using Big Data processes? Please explain.

In the financial sector, Big Data is potentially relevant for (credit) risk assessment and anti-money laundering purposes. Indeed, it is already applied to some extent, depending on the underlying definition of Big Data. Other products which are likely to be impacted by this technology are those based on (credit) risk and payments. Furthermore, financial advice could be envisaged as another field to be impacted by Big Data in the future. In general, Big Data has the potential to affect all different sorts of customer financial products and services as well as diverse internal activities of banks.

Some relevant examples include:

- Developing credit risk policies or models;
- Tailor-made commercial offers, taking into account the consumer's individual situation and interest;
- Marketing purposes, such as an improvement of the consumer experience, i.e. customer segmentation, market share analysis, proactive marketing campaigns, relationship management;
- Detection and prevention of fraud and anomalies, and
- Compliance with anti-money laundering and KYC obligations.

Overall, any kind of financial product and/or activity (particularly that is digitalised) is currently being impacted by the Big Data phenomenon. This is true from the application of predictive models and marketing (i.e. cross-selling and pricing) to processes (i.e. optimisations, prioritisations, operational strategies) and security.

Based on our analysis, it appears that any financial institution could make use of Big Data, i.e. from large organisations, which currently benefit from the Big Data phenomenon, to Fintechs whose business model is based on this new tool. The EMF-ECBC believes the 'level-playing' field issue, particularly from a regulatory perspective, is a real one and serious consideration should be given to this in order to ensure the principle of "same business, same risk, same rules" is respected.

Question 5: Do you consider there are (non-regulatory) barriers preventing you (or which could prevent you in the future) from collecting and processing data? Are there barriers preventing you from offering/developing Big Data tools in the banking, insurance and securities sectors? If so, which barriers?

The EMF-ECBC considers that there are several non-regulatory barriers that could prevent a given financial institution from collecting and processing data.

Firstly, there is the potential that technological barriers could emerge. If these technological obstacles are not overcome, financial institutions may be forced to abandon the use of Big Data to the detriment of consumers.

Secondly, there is the risk of incurring reputational damages in case of a too aggressive profiling activity using data from social networks, for example.

Thirdly, the regulatory ban on correlating customer data from one business unit with data from another in order to gain possible new insights could constitute a further barrier. The objective of the prescribed

'Chinese walls' is to avoid potential conflicts of interest. There are no such rules in place for competitors outside the banking sector. This means digital ecosystems retain an "information edge" which could translate into a competitive disadvantage for banks.

In addition, there could be high costs involved for adapting banks' IT environments to make them Big Data capable. Neither data storage and data analytic systems, nor product systems and processes, are designed for the collection and usage of Big Data. In order for banks to commit to the significant investments required, Big Data must offer a tangible advantage - in terms of economic viability or higher customer satisfaction.

Finally, there are gaps in digital skills which do not help to embrace new opportunities offered by Big Data both for the benefit of the bank itself and for its consumers.

Question 6: Do you agree with the above short, non-exhaustive, presentation of some of the main applicable requirements? If not, please explain why. Please also mention whether you consider that other legal requirements are essential and should be mentioned.

We tend to agree with the regulatory requirements identified in this document as it appears that all the relevant requirements which are applicable to the usage of Big Data are mentioned. These requirements relate to the transparency practices associated with consumers, particularly regarding the correct identification of topical data, the reliability of the sources identified for the extraction of the data and the correctness of the data as such. This is particularly relevant when the usage of Big Data could have legal consequences in the case of creditworthiness assessment, for example.

Question 7: Do you consider any of these regulatory requirements as unjustified barriers preventing you from using Big Data technologies? If so, please explain why. Please also explain whether you consider that further regulation (including soft law/guidance, etc. and insofar as it falls within the scope/remit of the ESAs) should be introduced to facilitate the use of Big Data technologies.

Generally-speaking, we do not consider the existing legislation to be an unjustified barrier to the use of Big Data technologies.

However, finding the appropriate mechanisms to implement privacy principles in the Big Data environment is the most effective way to prevent a clash between privacy and Big Data.

For example, the "privacy by design" principle introduced by the GDPR can be considered as an appropriate way to address the risks related to the protection of personal data from the very beginning of the processing of the data and apply the necessary and most effective solutions in the different stages of the Big Data chain.

In addition, the regulatory framework may not always be adept at responding to the ongoing digital challenges and innovations.

Moreover, the GDPR could be interpreted as imposing certain requirements that may not be suitable for financial services, which will reduce financial and non-financial companies' ability to work with Big Data. This is most obvious with respect to the right to data portability stated in the GDPR which could be interpreted as a right to take all data processed by the institution to any other firm or company.

Question 8: Do you consider the potential benefits for consumers and respectively financial institutions to be accurately described? Have you observed any of them in practice? If so, please provide examples. If not, please explain whether you are aware of any barriers that may prevent the above potential benefits from materialising?

Big Data can enhance the customising of digital content for consumers regarding products and services, while making the processes more cost-effective for financial institutions.

In addition, digital data application such as geo-localisation, for example, facilitates real-time assistance for consumers. Analysis of consumers' product usage allows to better profile clients and to build tailor-made offers.

Another example comes from the matching of customer relationship management (CRM) data with the web navigation data of current clients. By leveraging the knowledge of the clients' navigation data, financial institutions can better set-up their digital marketing campaigns by specifically targeting the audience. This process leads to lower campaign costs and more appealing digital advertising for consumers.

Furthermore, Big Data could enable banks to offer new products or services beyond the traditional offering of banks. This would make it possible for banks to progress from pure banking to a broader business focus, enabling banks to further diversify their product portfolio and to spread business risk.

Furthermore, the increased availability of information leads to more accurate creditworthiness assessments, thus reducing risks and costs for the financial institution.

One could imagine that consumers are sceptical about the advantages and benefits of Big Data technologies. However, due to the vast amount of information provided through electronic channels/ online trading applications, many consumers are better equipped from digital and financial points of view to understand and take advantage of the Big Data technologies. As a result, they can choose from a wide range of products and compare the offerings of different banks

In this respect, the UK Open Banking Standard project ([here](#)), for instance, aims to make it possible to share data that banks have historically held. In turn, it is believed that this will improve people's banking experience. When securely shared or published openly using open application programming interfaces (APIs), the data can be used to build useful applications and resources to help people find what they need. Consumers can look for a mortgage more easily, banks can find consumers matched to a new product, and businesses share data with their accountants.

Question 9: Do you agree with the description of the risks identified for consumers and respectively financial institutions? Have you observed any of these risks (including other risks that you are aware of) causing detriment to consumers and respectively financial institutions? If so, in what way? If not, please explain why. Please also mention whether certain risks for consumers and financial institutions have not manifested yet but have the potential of developing in the future and hence need to be closely monitored by Supervisory Authorities.

Overall, we agree with the risks identified for both consumers and financial institutions. Any change involves risks, which could be of a financial, ethical or personal nature. These risks could be generated not only by Big Data itself, but also by the complexity of the ecosystem due to the fact that consumers and financial institutions are inter-connected.

However, with regard to paragraph 42 on page 23, we are of the opinion that the increasing personalisation that Big Data makes feasible, i.e. increasingly personalised methods to disclose information or personalised

products, could in fact bring benefits to consumers, rather than reduce comparability and make it harder for consumers to compare one offer with another.

An additional potential risk for financial institutions is the risk resulting from non-transparency of data processing while using Big Data technology. Therefore, clear guidance to data controllers on how to fulfil the transparency requirements would be helpful. Such guidance, however, should primarily follow a universal cross-industry approach, and not be exclusive to financial institutions alone.

Another risk for consumers may be, that if Big Data were to result in open access to data for all sides (as regulation i.e. PSD2 may be understood) – all parties will have the same information about consumers. Analytical methods may conclude similarly on the same data given, so that consumers will be treated in the same way, i.e. be seen as profitable or not so profitable, and offered or denied products accordingly. Adding the risk that some of the available data may be incorrect or unwillingly leaked, this final stage of transparency should be avoided.

Question 10: Is the regulatory framework adequately addressing the risks mentioned above? Bearing in mind the constant evolution of technologies/IT developments and that some of the above mentioned regulatory requirements are not specific to the financial services sector (e.g. GDPR), do you think further regulation is needed to preserve the rights of consumers of financial services in a Big Data context? Please explain why.

The current legal framework requires that data is accurate and kept up-to-date. This ensures that profiles created on behalf of or applied to an individual person are appropriate and accurate. Nevertheless, it is possible that Big Data applications often do not concern individual, but rather group profiles. As such, the analysis of group profiles is sometimes incompatible with the individual needs of each consumer, especially in the context of financial services. In view of this, it is advisable that the current legal framework is improved via appropriate guidelines or other policy support documents in order to address this issue.

Question 11: Do you agree that Big Data will have implications on the availability and affordability of financial products and services for some consumers? How could regulatory/supervisory authorities assist those consumers having difficulties to access financial services products?

The use of Big Data could have general consequences on financial products and/or services.

As a financial technology tool, Big Data is neutral in terms of availability and affordability of financial products and services, because its value for consumers depends on the quality of its application.

In addition, Big Data does not change the market principle that not all financial products and services are appropriate for all consumers, and that access to and pricing of these products and services are also functions of understanding a consumer's requirements and capabilities.

However, sophisticated analytics could substantially improve decision-making, minimise risks and discover valuable insights that would otherwise remain hidden.

Furthermore, Big Data offer the opportunity of building in-house credit models, which enable banks to reduce costs, target the right audiences, recalculate risk portfolios and optimise offerings.

Question 14: Would you see merit in prohibiting the use of Big Data for certain types of financial products and or services, or certain types of consumers, or in any other circumstances?

In our view, there is no clear benefit in prohibiting the usage of Big Data for certain services or financial products, as data is often used in order to protect consumers, for example, in the context of creditworthiness assessments in the Mortgage Credit Directive.

Question 15: Do you agree that Big Data may reduce the capacity of consumers to compare between financial products/services? Please explain your response.

Big Data only is one of the tools at the disposal of financial service providers, and furthermore, increasingly, it is providing consumers with access to powerful comparison websites. Individualised products and prices may reduce comparability; however, customised products will offer more value for each individual. Therefore, more individual offers will complement - and not substitute - standard products, leaving the choice to the consumer. Moreover, Big Data is not the only driver for the individualisation of products. Other drivers could be the desire of the customer not to receive just standardised products but also personalised products, as well as the intense competition in the financial sector.

Question 16: How do you believe that Big Data could impact the provision of advice to consumers of financial products? Please explain your response.

Consumers can take advantage of better analysis if they are able to rely on a better service and better data which is both well-processed and visualised. Big Data can bring real facts and make connections, i.e. pinpoint related events, get better conditions, suggest the right moment to buy etc. Provided that the analysis of algorithms and the data are accurate and reliable, Big Data can become a mass market tool to support also consumers currently not served by a human operator.

Question 17: How do you believe Big Data tools will impact the implementation of product governance requirements? Please explain your response.

Big Data could assist in designing and bringing to the market products with features, charges and risks that more accurately meet the interests, objectives and characteristics of the particular target market. Additionally, it could also help in identifying those market segments and even individuals for which the product is considered not likely to meet their interests, objectives and characteristics. Furthermore, distribution channels could be better optimised based on Big Data insights. Additionally, Big Data could make testing and monitoring products and their performance much easier, faster and even more reliable.

As a general remark, Big Data tools are likely to have a significant impact on the implementation of product governance requirements. It will therefore be necessary to ensure the quality and accuracy of the data and the reliability of the algorithms. These two elements can only be achieved through proper organisational measures and processes.

Question 18: How do you believe Big Data tools will impact know-your-customer processes? Please explain your response.

Overall, Big Data could assist in corroborating rapidly different sources of information (and matching these with information provided directly by the customer, in order e.g. to contribute to the assessment that the former is genuine). On the other hand, onboarding processes of consumers might become more extensive e.g. due to various opt-ins and opt-outs resulting from stricter requirements for giving consent to the processing of personal data according to the GDPR.

In view of these considerations, and due to the importance for financial institutions to ensure the correctness of the data which they use, it is possible that Big Data could have a significant impact on the KYC processes.

Question 19: What are key success factors for a Big Data strategy (i.e. the adaptation of the business model/plan towards Big data driven technologies and methods)?

Big Data and analytics represent a crucial shift of mind-set within a given financial institution and often require a revolutionary and comprehensive strategy.

Among the key factors for a successful Big Data strategy are good knowledge of consumers, more efficient internal processes, full and timely integration of databases, and the creation of data-driven decision processes.

In addition to that, the development of specialised skills could be helpful as well, together with a clear vision to set objectives and target developments (partnership, data collection, etc.) and maintaining a high quality of the data used (with certification processes, maintenance, etc.).

Furthermore, economic and organisational resources, together with transparent communication policies vis-a-vis consumers, could be helpful as well.

Question 20: What are the greatest future challenges in the development and implementation of Big Data strategies?

Big Data should be well-modelled, documented and maintained in order to be correctly analysed. In view of this, it is important to extend data governance to all data as well as link data quality and compliance to data governance.

Moreover, Big Data should be contextualised and semantically connected to other data. Any source should be classified and any data governed in accordance with the business model and/or regulatory frameworks.

The challenge is to improve the analysis processes as such and predictive capabilities while keeping the focus on data growth and governance.

Question 21: This DP refers to a number of measures and tools meant to ensure compliance with conduct and organisational regulatory requirements as well as data and consumer protection rules in the context of big data analytics. Are other measures and tools needed? If so, what are they and what they should cover?

Data processing is becoming increasingly transnational. This implies that more and more agreements must be made among the various jurisdictions. Organisational accountability could become a key building block of privacy protections in the form of corporate privacy management programmes, corporate rules and cross-border privacy rules and ethical guidelines.