BIG DATA, BIG CONCERNS?
EU COMPETITION LAW IMPLICATIONS OF THE CHANGING ROLE OF BIG DATA IN THE FINANCIAL SERVICES INDUSTRY

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I. INTRODUCTION

The role that big data plays in the financial services industry is changing at a rapid pace. Financial services firms have access to large amounts of data, both from traditional internal sources and also increasingly from external sources such as social media and third-party databases. Data is no longer a lump of facts but rather a vibrant source of insight which enables innovative products to be developed and better business decisions to be made.[2] As a result, and similar to the impact it has had in other business sectors, big data is transforming the processes and organization of financial services firms.

In this article, we analyze these developments from an EU competition law perspective, providing insights into the relevant analytical framework, key considerations and

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[2] Accenture, *Exploring Next Generation Financial Services: The Big Data Revolution*, June 2016, available at: https://www.accenture.com/t20160602T025708__w__/us-en/_acnmedia/PDF-20/Accenture-Next-Generation-Financial-Services-Big-Data.pdf.

potential concerns that may arise under EU competition law in relation to the use of big data in the financial services sector.

II. BIG DATA: INCREASED ATTENTION IN THE EU

At the EU level, there is currently no specific, uniform guidance in relation to the potential competition law implications of the use of large amounts of (personal) data by companies. However, European competition authorities are increasingly focusing their attention on the implications of big data on competition and consumer welfare. Indeed, we have recently seen a continuous stream of activity by competition authorities across Europe in the field of big data.

Even before Ms. Vestager entered office as the new EU Commissioner for Competition in 2014, she stated to the European Parliament that in her opinion, big data should be considered "the new currency of the Internet."[3] In a more recent speech, the Commissioner emphasized again that: "the benefits it has to offer can seem far away – almost like science fiction. But people's sense that they've lost control of their personal data, the sense that data is making companies so powerful that no one can control them – these things are very immediate. (…) So I will keep a close eye on how companies use data. (…) I'm convinced that we can make big data, not a threat, but the key to a better future."[4]

So far, the European Commission has considered data related concerns in a number of merger control decisions, including *Facebook/WhatsApp, Google/Doubleclick* and, recently, *Microsoft/LinkedIn.*[5] The Commission is also currently reviewing Verizon Communications' proposed acquisition of Yahoo!'s core assets.[6] The Commission's review of these mergers focused on the impact on competition of the acquisition of large amounts of commercially valuable data. The recent decision of the Commission in *Microsoft/LinkedIn*, as well as the ongoing review of *Verizon/Yahoo!* is providing the Commission with opportunities to further develop the analytical framework in this area.[7]

In the UK, the Competition and Markets Authority ("CMA") published a report on June 17, 2015, on the commercial use of consumer data. While highlighting the "wide range of benefits for both firms and consumers from the use of data," the CMA also pointed to the concerns raised by consumers about the effectiveness of privacy policies, terms and conditions and cookie notices in enabling consumers to control the collection and use of "their" data.

In Germany, the Federal Cartel Office ("Bundeskartellamt") opened an investigation in March 2016 into Facebook's terms and conditions, more specifically on whether Facebook exploited its arguably dominant position in the market for social networks by adopting terms of service on the use of users data in violation of data protection provisions. In addition, on May 10, 2016, the Bundeskartellamt and the French Competition Authority ("Autorité de la

[3] Hearing of Margrethe Vestager, Commissioner-Designate Competition, October 2, 2014, available at: http://www.europarl.europa.eu/hearings-2014/resources/library/media/20141022RES75845/20141022RES75845.pdf.
[4] Speech at the EDPS-BEUC Conference on Big Data, Brussels, September 29, 2016, available at: http://ec.europa.eu/commission/2014-2019/vestager/announcements/big-data-and-competition_en.

Concurrence") published a paper on the impact of big data on competition law.[8] The paper considers the extent to which data confers market power, the types of data-related conduct that may give rise to an abuse of dominance and the interaction between competition and data protection rules.

The latest to the party is the Dutch Authority for Consumers and Markets that started an investigation in September of this year into the extent to which online (video) platforms may harm competition, and assess how their use of big data might grant them excessive market power.[9]

It has been suggested that these activities signal a change from what some have described as a "timid" attitude on the part of European competition authorities. According to the EU's data-protection chief, Giovanni Buttarelli, European antitrust watchdogs "now realize the power of big data and the impact on competition affairs, regardless of the free or changed dimension of certain services."[10] This development has spurred new discussions about the role of data in economic relationships and, by consequence, the application of competition law.

This holds equally true for the financial services industry. Although competition authorities have been mainly focusing their attention on social networks and search engines, this interest has already turned to other sectors, including the financial services sector. Most notably, on September 21, 2016, the UK's Financial Conduct Authority published the outcomes of an investigation into the use of big data in the retail general insurance sector.[11] Also, in their joint paper, the Bundeskartellamt and the Autorité de la Concurrence explicitly referred to the banking and insurance industries as sectors where data collection has been rapidly developing.[12]

III. BIG DATA AND ITS ROLE IN THE FINANCIAL SECTOR

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[5] Commission Decisions of October 3, 2014 in case COMP/M.7217 – *Facebook/WhatsApp*, July 22, 2008 in case COMP/M.4731 – *Google/Doubleclick* and December 6, 2016 in case COMP/M.8124 - *Microsoft/LinkedIn*.

[6] Case COMP/M.8180 – *Verizon/Yahoo!*.

[7] According to the press release available at the date of writing of this article, the Commission would have cleared Microsoft's acquisition of LinkedIn on the condition that Microsoft will continue allowing competitors access to its software such as Outlook and giving hardware makers the option not to preinstall a LinkedIn application after the acquisition. See http://europa.eu/rapid/press-release_IP-16-4284_en.htm .

[8] "Competition Law and Data," joint study by the Bundeskartellamt and the Autorité de la Concurrence, published on May 10, 2016.

[9] See https://www.acm.nl/nl/publicaties/publicatie/16333/Grote-platforms-grote-problemen/.

[10] MLex, "Antitrust watchdogs are realizing 'power of big data,' EU data chief says," April 5, 2016.

[11] "Feedback Statement on Big Data in retail general insurance" of September 21, 2016. The paper was aimed at determining whether the progressive implementation of big data in the insurance sector would foster or constrain competition. The paper identified a series of criticalities, such as the increasing risk of segmentation and of discriminatory pricing practices. Further, the paper argued that big data has the potential to become a considerable barrier to entry in the future.

[12] "Competition Law and Data," joint study by the Bundeskartellamt and the Autorité de la Concurrence, published on May 10, 2016, page 3.

There is no generally accepted definition for the term "big data," since its meaning is still evolving. The Bundeskartellamt and the Autorité de la Concurrence have referred to big data as a voluminous amount of structured, semi-structured and unstructured data that has the potential to be analyzed for information.[13] More specifically, big data has been identified as data characterized by four attributes (represented by four "V'"s): Volume, Velocity, Variety and Value. That is, data existing in large amounts, produced at high speed from multiple sources and providing an intrinsic, but apparent, value.

Historically, financial services firms have always had access to enormous amounts of (customer) data. In this context, the term big data traditionally referred to transactional (customer) data, which included structured or semi-structured information about payment transfers, purchases, subscriptions, income, insurance, cost of living, etc. However, with the influx of new technologies and the entry into the market of innovative FinTech companies,[14] the term big data has moved beyond its traditional meaning. Financial services firms now make use of all kinds of (external) sources, including social media, GPS data and governmental databases, to gather data.

Financial services firms are well aware of the advantages provided by big data, as evidenced by recent research findings. 71 percent of the firms active in the global financial services industry are exploring big data and predictive analytics, while 70 percent report that big data is critically important to their firms.[15] Further, 54 percent of firms active in the industry have appointed a chief data officer.[16] Finally, financial services firms invested USD 6.4 billion in data-related programs in 2015.[17]

IV. COMPETITION CONCERNS AND BIG DATA IN THE FINANCIAL SERVICES SECTOR

In this section, we consider a number of potential theories of harm in relation to the use of big data in the financial sector. Our analysis is based on the general EU competition law framework and the few precedents that are available in the EU, mainly merger control decisions of the European Commission. From the outset, it is imperative to note that the role and analysis of big data as a parameter of competition is a market-specific question that requires a case-by-case analysis, rather than a one-solution-fits-all approach. The collection and use of big data is not a competition concern in and of itself, and is the exclusive domain of EU data protection laws. Competition law can only come into play if (the collection and use of) big data forms a relevant parameter of competition.[18] This point was also emphasized by Commissioner Vestager in a recent speech:

> [t]hat doesn't mean there's a problem, just because you hold a large amount of data. After all, the whole point of big data is that it has to be big. Because, with

[13] Ibid, page 4.
[14] Financial Technology is an industry made up of companies using novel financial technologies to support or enable financial services, or drive technological innovation in the provision of financial services. This industry includes both start-ups and established companies applying technology to their financial services.
[15] "Exploring Next Generation Financial Services: The Big Data Revolution," Accenture, May 2016.
[16] "*Just Using Big Data Isn't Enough Anymore*," Harvard Business Review, February 9, 2016.
[17] "*Global Big Data IT Spending in Financial Sector – Market Research 2015-2019*," Technavio.

> the right tools, you can find patterns in a large set of data that you just wouldn't see in a smaller one. And we don't want to discourage companies from putting in the effort to collect that data … But it's possible that in other cases, data could be an important factor in how a merger affects competition.[19]

A. Big Data Holds the Key: Exclusive Access to Big Data

A first theory of harm is based on the potential effects on competition resulting from the exclusive access by financial services firms to big data. Such data may stem from their own service offerings or from third party databases. Exclusive access to big data can be a source of market power and, in turn, be used to raise a rival's costs or otherwise disadvantage rivals (e.g. by preventing entry or expansion).

This theory of harm was investigated in a merger control context by the European Commission in several cases, including *Facebook/WhatsApp*, *Telefonica UK/Vodafone UK/Everything Everywhere/JV* ("*M-commerce* Decision") and *Google/Doubleclick*.[20] In relation to the financial services sector specifically, in the *M-commerce* Decision, the Commission analyzed whether the collection of personal data through mobile wallet services offered by the three leading wireless operators in the UK would raise competition concerns.[21] During the review, concerns were raised that the joint venture company ("JV Co") would come to possess essential personal data generated by users of the mobile payment services and that this could be used to exclude rivals.[22] More specifically, the Commission assessed whether JV Co would foreclose competing providers of data analytics or advertising services by combining personal information, location data, response data, social behavior data and browsing data and by so creating a unique database that would become an essential input for targeted mobile advertising that no competing provider of mobile data analytics services or advertising customer would be able to replicate.[23] In the end, the Commission rejected this theory of harm, concluding that:

> JV Co would indeed be able to collect a broad range of consumer information, which will be very valuable for its (mobile) data analytics services and advertising services. However, many other strong and established players are also able to offer comparable solutions to the JV Co. Therefore, other providers of advertising services competing with the JV Co would not be foreclosed from an essential input and the creation of the JV Co would not have a negative

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[18] See Jonas Koponen and Annamaria Mangiaracina, "*No Free Lunch: Personal Data and Privacy in EU Competition Law*," Competition L. Int'l (2013).

[19] Speech at the EDPS-BEUC Conference on Big Data, Brussels, September 29, 2016, available at: http://ec.europa.eu/commission/2014-2019/vestager/announcements/big-data-and-competition_en.

[20] Commission Decisions of October 3, 2014 in case COMP/M.7217 – *Facebook/WhatsApp*; March 19, 2014 and July 22, 2008 in case COMP/M.4731 – *Google/Doubleclick*.

[21] Commission Decision of March 7, 2013 in case COMP.6314 ("*M-Commerce* Decision").

[22] More specifically, JV Co had access to: (i) basic customer data collected by the mobile network operators, such as age, residential status, profession, location, which would be provided to the JV Co in an anonymized form; (ii) data collected via the mobile wallet; and (iii) data collected on the basis of contracts with merchants.

[23] *M-Commerce* Decision, paragraph 593.

effect on competition on the market for (mobile) data analytics, as well as for market research services or marketing information services.[24]

In *Facebook/WhatsApp* and *Google/Doubleclick*, the Commission again raised concerns in relation to data collection. However, one should bear in mind that neither *Facebook/WhatsApp* nor *Google/Doubleclick* involved an actual concentration of data. Until recently, WhatsApp did not mine its users' personal data. *Google/Doubleclick* essentially involved the acquisition by one company that collected vast amounts of personal data (Google) of another with the technology to target ads and monitor their performance (Doubleclick).

Concerns about access to data post-transaction might give rise to different issues and can even lead the parties involved to provide commitments to guarantee rivals access to data after closing.

For example, in *Thomson/Reuters*,[25] the Commission did raise concerns regarding the elimination of competition between the two key suppliers of financial databases. According to the Commission, the merged entity was, among other things, likely to have a negative impact on providers of desktop products that obtained and integrated the content provided by Thomson and Reuters into their own competing offerings to customers. According to the Commission, the merged entity would have the ability and the incentive to foreclose such competitors, thereby adversely affecting competition. In order to address these concerns, the merging parties committed to divesting copies of their databases to a third party so that a credible competitive force would remain in the marketplace post-merger.

In *Microsoft/LinkedIn*[26] the Commission very recently analyzed the possible negative impact on competition resulting from the concentration of data sets. In particular, the Commission assessed whether a possible denial of access to LinkedIn's database by Microsoft could harm competition. However, the Commission found that access to LinkedIn's database was "not essential" to compete on the market. The Commission did raise concerns in respect of the possible use by Microsoft of its strong market position in operating systems and software to strengthen LinkedIn's position, and thus foreclose other professional networking sites from the market. Microsoft addressed the Commission's concerns by agreeing to continue offering LinkedIn's competitors access to its cloud computing system, as well as interoperability with its productivity software.

Outside a merger control context, access to data of financial services firms may also raise competition concerns under both Article 101 and Article 102 TFEU.

As to the situation under Article 101 TFEU, although the granting of access to big data itself is unlikely to raise questions under EU competition law (but rather under data protection

[24] *M-Commerce* Decision, paragraph 557.
[25] Commission Decision of February 19, 2008 in case COMP/4726. Both Thomson and Reuters sourced, aggregated and disseminated real-time and historical market data and other types of financial content to respond to the needs of financial professionals, such as traders and sell-side people in the on-trading floor space, of investors on the buy-side and of analysts in the off-trading floor space within banks, investment funds and corporations.
[26] Commission Decision of December 6, 2016 in case COMP/M.8124.

financial regulation laws), this could be different if such access would be granted on an exclusive basis. An illustrative example in this respect could be a national retail bank exclusively selling transaction data about customers' spending on travel bookings to an international travel agency.[27] From a competition law perspective, such an agreement would be analyzed as a vertical exclusive supply agreement under Article 101 TFEU, where the data provided would function as an input to the travel agency. The main competition risk of such an agreement would relate to the potential foreclosure of competing travel agencies.

To assess whether anticompetitive effects are likely to arise, the assessment under Article 101 TFEU should take account of the following factors: (i) whether the data provided by the retail bank is "unique" or can be replicated or bought by competing travel agencies; (ii) what the data can be used for; and (iii) whether the (potential) use of the data could lead to anticompetitive foreclosure of the travel agency's competitors. This test may seldom be met in practice, if the parties to the agreement do not hold considerable market power on the relevant markets.[28] Also, it must be assumed that if financial services firms possess unique data which they wish to commercialize, they would not, in principle, have an incentive to limit the use of that data only to a limited number of market players.

As to the situation under Article 102 TFEU, unilateral actions by a dominant undertaking in relation to the access to, or use of, its customer data may under certain circumstances have exclusionary effects. Indeed, the Commission's interpretation of "dominance" within the meaning of Article 102 TFEU (on abuse of a dominant position) encompasses a broad range of competitive parameters which can include (depending on the market context) access to (personal) data.

The existence of different competitive parameters is a well-established notion in the case-law of the European Court of Justice. For example, in *Post Danmark I*, the Court stated that:

> [...] Competition on the merits may, by definition, lead to the departure from the market or the marginalization of competitors that are less efficient and so less attractive to consumers from the point of view of, among other things, price, choice, quality or innovation.[29]

The Bundeskartellamt and the Autorité de la Concurrence consider in their joint paper that data collected on a given market could be considered a competitive parameter and could be used by an undertaking to develop or to increase its market power on another market in an anticompetitive way.[30] A relevant example could be the use of big data developed by a national retail bank to identify customers who are likely to move within a certain timeframe in

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[27] To illustrate, in October 2013, British Barclays Bank started selling targeted retail benchmarks to UK retail chains. See: http://www.blinklane.com/nl/blognl/banks-sell-data#.WDmlIXKQxeU.

[28] In order to assess whether anticompetitive effects are likely to arise, one would have to consider among other things: (i) the market shares of the parties on the relevant markets; (ii) the duration of the agreement; and (iii) any efficiencies resulting from the agreement.

[29] Judgment of the ECJ of March 27, 2010 in Case C-209/10 *Post Danmark A/S v. Konkurrencerådet*, point 22.

[30] "Competition Law and Data" joint study by the Bundeskartellamt and the Autorité de la Concurrence, published on May 10, 2016.

order to target these customers with tailor-made mortgage products. To the extent that this data would be so unique and difficult to duplicate for competing lending companies, the refusal by the retail bank to make such data available to them may raise abuse of dominance concerns under Article 102 TFEU.

The threshold for intervention by the European competition authorities is, however, (very) high. The European Court of Justice established in *Oscar Bronner* and *Microsoft* that the refusal must: (i) concern a product which was (technically or economically) indispensable for carrying on the business in question (i.e. there is no actual or potential substitute for the facility); (ii) prevent the appearance of a new product or hamper innovation; (iii) exclude all effective competition in the relevant market; and (iv) not be justified by objective considerations.[31]

Commissioner Vestager recently confirmed that the Commission's interventions should be limited to exceptional circumstances, stating that: "the problem for competition isn't just that one company holds a lot of data. The problem comes if that data really is unique, and can't be duplicated by anyone else. But really unique data might not be that common."[32] In the context of the financial services industry, this seems even truer. Although financial services firms have access to a quickly growing amount of data, such data may seldom be unique and essential to competitors, given the existence of numerous competitors.

B. Banking on Cooperation

Financial services companies may collect significant amounts of data by themselves or acquire data from third parties. Another way to collect data could be for firms to share data between themselves. Against this background, a second theory of harm could relate to cooperation between different financial services firms in respect of the collection and processing of big data (e.g. data pooling) which may have an anticompetitive object or effect.

In recent years, the conduct of financial services firms has been under close scrutiny for alleged infringements of EU competition law. The Commission's EUR 1.7 billion fines in relation to Euro-based and Yen-based interest rate derivatives has attracted a lot of attention, but other investigations have recently ended or are still underway.[33] In fact, Commissioner Vestager recently stated that "[the] work in the financial sector is not done" and "the common goal is to make sure that financial markets are competitive to the benefit of European

[31] Judgment of the ECJ of 26 November 1998 in Case C-7/97 *Oscar Bronner v. Mediaprint*. Judgment of the General Court of 17 September 2007 in Case T-201/04 *Microsoft v. Commission*.

[32] Speech by Commissioner Vestager at the Data Ethics event on Data as Power, Copenhagen, September 9, 2016, available at: https://ec.europa.eu/commission/2014-2019/vestager/announcements/making-data-work-us_en.

[33] On December 7, 2016, the Commission fined another three banks a total of over €485 million for their participation in what has become known as the EURIBOR cartel. The European Commission is said to continue its investigation into alleged manipulations of foreign exchange. In addition, antitrust investigations against MasterCard (regarding inter-bank fees in relation to payments made by cardholders from non EEA countries) and Visa (regarding inter-regional interchange fees) are still pending. The Commission's investigation into Credit Default Swaps ended in July 2016 with the Commission accepting commitments offered by ISDA and Markit that will make it easier to trade Credit Defaults Swaps on exchanges and improve transparency.

consumers and business".[34] This again underlines that the financial services sector is not immune to competition law risks.

It is central to Article 101 TFEU that cooperation between competitors which affects key parameters of competition may lead to competition concerns if it has the object or effect of restricting competition. However, the Commission's Horizontal Cooperation Guidelines also explicitly recognize that cooperation between competitors can lead to substantial economic benefits, in particular if competitors share risk, save costs, increase investments, pool know-how, enhance product quality and variety and launch innovation faster.[35] A recent example of cooperation in the retail banking sector that did not raise any competition concerns can be found in Germany where the Bundeskartellamt recently approved the cooperation between a number of small savings banks over a joint payment service that allows money transfers from mobile to mobile, via a smartphone app.[36]

Indeed, if bigger is better, then combining companies' data into a single, big pool might give them insights that they could not obtain on their own. Data pooling might even help competition, by allowing smaller players to bundle their data and compete more effectively. This is in essence what led the Commission to approve Microsoft's acquisition of Yahoo!'s search business in 2010. The Commission concluded that the merger could make the market more competitive by increasing Microsoft's scale – and the amount of data it had – and improving its ability to compete with Google.

Particularly in the area of the provision of financial services, there is a clear case for cooperation in the context of big data. An example could be found in the identification of customers of different banks under the "know-your-customer" ("KYC") rules. While the exchange of commercially sensitive information may raise competition law concerns (e.g. T-*Mobile Netherlands and Others*),[37] this does not necessarily have to be true where financial services firms grant access to or exchange customer data with competing firms. Although big data may form a parameter of competition, this does not automatically mean that the exchange of some of the data would be detrimental to competition or innovation. In the context of KYC data, customers are likely to benefit from smooth communications between different financial services firms, allowing them to transfer payments from one bank to another. The granting of access to or the exchange of KYC data – to the extent permitted by financial regulation and data protection rules – may facilitate such communications between different financial services firms and enhance the user experience.

Such cooperation is unlikely to raise competition concerns under Article 101 (1) TFEU and in any event would likely benefit from an exemption under Article 101 (3) TFEU if the

[34] Statement by Commissioner Vestager, December 7, 2016, available at http://europa.eu/rapid/press-release_STATEMENT-16-4307_en.htm.

[35] Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements (2011/C 11/01), para. 2.

[36] See: https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2016/14_09_2016_Sparkasse_App.html.

[37] Judgment of the ECJ of June 4, 2009 in case C-8/08, *T-Mobile Netherlands v. Commission*.

cooperation (i) contributes to innovative developments; (ii) benefits consumers, e.g. by lowering transaction costs; (iii) is indispensable; and (iv) does not eliminate competition in respect of a substantial part of the services or products involved. Commissioner Vestager recently stated in relation to data pooling arrangements between competitors that "there's no reason why that should harm competition. As long as companies make sure they do it the right way. In fact, data pooling might even help competition."[38]

Of interest in this respect is the Revised EU Payment Services Directive ("PSD2"), which will need to be implemented by EU Member States in 2018. PSD2 mandates the cooperation between financial services firms in relation to payment initiation by third-party payment providers ("TTPs"). Under the new directive, TTPs will be granted direct access to users' bank account information in order to initiate payments directly on behalf of a customer of that bank. This development is likely to give a significant boost to the exchange of data between financial services providers.

C. Race to the Bottom: Lower Standards of Data Protection

A third theory of harm may be found in the possibility for financial services firms to impose lower standards of data protection on their customers. Particularly in two-sided markets where services are offered for "free" and are considered essential to its users, users may feel forced to accept lower standards of privacy.

Indeed, the Bundeskartellamt on March 2, 2016 started an investigation into Facebook's data protection setting. More specifically, the Bundeskartellamt argued that Facebook may have exploited its dominant position in "the market for social networks" by adopting terms of service on the use of user data "in violation of data protection provisions." Users, in Bundeskartellamt's reasoning, would not accept Facebook's terms of service, should the company enjoy a lesser degree of market power.

The investigation ventures into new competition fields and represents the first attempt to bring pure data protection concerns within the realm of competition law. The Bundeskartellamt faces a number of hurdles, not least to show that (i) Facebook is dominant (in the market for social networks); (ii) it has abused its dominant position; and (iii) there is a link between its dominant position and the abusive conduct. As to the first hurdle, Facebook may argue (as Google has) that competition is only a click away: if users are unhappy or unwilling to agree to its conditions, it would generate a competitive opportunity. As to the second challenge, the possibility of an infringement in one area of law being tied back to another, such as competition law, is quite remote. It does, however, fit within a broader development of the extending "special responsibility" that rests upon a dominant firm to not only comply with competition law but with any law. As to the third and final hurdle, Germany's higher court, the Bundesgerichtshof, already ruled in November 2013 that the "use of illegal general terms and conditions by a dominant company can constitute an abuse under the terms of German competition law."[39] This judgment may indeed be the backbone of the Bundeskartellamt's case.

[38] Speech by Commissioner Vestager, EDPS-BEUC Conference on Big Data, Brussels, September 29, 2016.
[39] Judgment issued by the Bundesgerichtshof in the case KZR 58/11–VBL-Gegenwert on November 6, 2013.

Also in the financial services sector, standards of personal data protection may come under pressure with the growing trend to use customer data for commercial purposes. Already today, there are numerous examples of financial institutions that have placed big data at the heart of their commercial strategy. For example, Fidor bank, a German bank which modeled itself as a social network, is using social interactions to build new products, share information, market the bank, and offer targeted products to customers. Also traditional retail banks in Europe such as Royal Bank of Scotland have made the (commercial) use of customer data central to their business model.[40] The implementation of PSD2 will only stimulate these developments as it facilitates the entry of innovative financial payment solutions and the transfer of data from one financial services provider to another.

This being said, a theory of harm on the basis of which financial services firms would be held liable for an abuse of dominance pursuant to Article 102 TFEU in relation to the lowering of data protection seems unlikely to become a reality in the near future. Although European financial markets are generally considered concentrated, customers still have ample opportunity to switch if they are dissatisfied with their financial services firm and, in particular, with the way it treats customer data. In the advent of the implementation of PSD2, new, innovative financial services firms are likely to enter the European marketplace, increasing the options available to customers. As in other technology sectors where privacy standards have increasingly become a differentiating factor of competition (for example in the telecommunication sector in relation to the processing of location data),[41] it is not unimaginable that privacy standards applied by financial services firms would become an important competitive factor.

V. CONCLUSION: BIG DATA, BIG CONCERN?

In this article we have explained the role of big data in the financial sector and identified a number of potential concerns that the use of this data may raise under EU competition law. It is evident that big data is changing the competitive landscape in the financial services sector in Europe at a rapid pace. These developments pose interesting, but complex questions under EU competition law as regards potential anticompetitive effects related to the collection and processing of big data. European competition authorities have only just begun to analyze the relevance of big data as a parameter of competition and the applicability of EU competition law thereto.

There is no reason for special treatment of big data under EU competition law. Particularly in the financial services sector where big data is increasingly becoming an important force for innovation, European competition authorities should not intervene lightly in market dynamics but should recognize the positive effects that big data brings to consumer

[40] See http://www.forbes.com/sites/bernardmarr/2016/04/13/the-wonderful-big-data-strategy-at-royal-bank-of-scotland/#45f8cc103e22.

[41] Article 9 of Directive 2002/58/EC requires that information giving a user's location - other than traffic data - may only be processed if made anonymous or with the prior consent of the individual to the extent and for the duration necessary for the provision of a value added service.

welfare. As long as parties play by the European competition rules, the use of big data by financial services firms should not be a big concern but rather the key to innovation.