Data-Driven Mergers under EU Competition Law

Anca D Chirita*

This chapter aims to review data-driven mergers including, but not limited to, major conglomerates involving large scale of individual user data, known as 'big data', by Facebook (WhatsApp), Microsoft (Yahoo!, Skype and LinkedIn), Google (Double Click), TomTom (Tele Atlas), Publicis/Omnicon, Telefonica/Vodafone UK, and so on. These mergers have been unconditionally cleared based on the traditional law and economic analysis of mergers, known as a 'significant impediment to effective competition' legal test. The test disregards public policy concerns, including the economics of privacy, i.e., data analytics; data sharing with third parties, e.g., publishers or retailers; and data selling. The chapter draws on previous research on the rise of big data and the loss of privacy, which sheds light inter alia on the ineffectiveness of the data, consumer and competition rules and on the intrusive privacy policies of the various digital platforms.

This chapter argues that the current assessment of mergers has to activate the public policy clause and to consider the economic implications of privacy following a merger. No merger should be unconditionally cleared if it involves a large amount of users' data.

The chapter arrives at the conclusion that the new data protection framework is insufficiently robust. The contract theory of informed consent associated with the potential of sharing anonymised and/or aggregated data means that digital platforms are able to exploit data protection loopholes and abuse users' trust in digital platforms. In addition, the chapter looks at

*Assistant Professor of Competition Law, Durham University, UK, Dr. iur., Non-Governmental advisor to the ICN for DG COMP. Earlier drafts were presented at the Annual Seminar of the Society of Legal Scholars on 'The Future of Commercial Law' in 2017 held in Durham, the 13th Annual Conference of the Academic Society for Competition Law on 'The Effects of Digitalization, Globalization and Nationalism on Competition Law' held at the New York University School of Law and the Annual Competition Policy Conference on 'The relationship between antitrust, innovation and investment' of the Royal Institute of International Affairs (Chatham House) in 2018 and benefitted from helpful suggestions, comments or questions from academics and practitioners including Massimiliano Kadar, Professor Maurice Stucke, Thomas Vinje, Professor Konrad Ost, Han Li Toh, Professor John Linarelli, Sir Roy Goode QC, Louise Gullifer QC (Hon), Professor Chris Reed, and Dr Orkun Akseli.

the treatment of innovative digital platforms from the perspective of Schumpeterian economics and therefore identifies the fallacy of too great a reliance on ephemeral market shares. It discusses more critically the expectation of a robust and coherent theory of harm to consumers in the context of digital markets.

I. Institutional Cooperation: a Pragmatic Solution in the Age of Big-Data Mergers?

In the digital age, the technological advance has contributed to a myriad of mega-mergers. In the last decade, the European Commission reviewed a number of large scale acquisitions ranging from $3.1 billion paid by Google to acquire DoubleClick in 2008; €2.9 billion paid by TomTom to acquire Tele Atlas in 2008; $45 billion paid by Microsoft for Yahoo! Search in 2010, $8.5 billion for Skype in 2011 and $26 billion for LinkedIn in 2017; and $19 billion paid by Facebook to acquire WhatsApp in 2014 and $35 billion for the collapsed merger between Publicis and Omnicom.[1] What all these mergers had in common was a vast amount of users' data available on digital platforms, known as 'big data'.

Such acquisitions might well have been driven by the desire to invest existing profits and encourage even more innovation. Retrospectively, it is questionable whether any of the much smaller entities acquired by these giants have become more successful innovative entities.

However, the acquisition of less successful businesses cannot remain unchallenged by the hidden value of big data. Indeed, we have witnessed the emergence of highly innovative technologies based on intelligent business solutions where platform users pay nothing in return for the use of a service. Nonetheless, such users pay with their own data. Should ownership of an online platform change, then the new owner will take over large amounts of data. This process shifts the focus from an interest in pure innovation to an interest in data, as the latter possesses an intrinsic monetary value. Even if it is not sold at an internet-based auction, such data is valuable for sharing.

How, then, was it possible that these large transactions went ahead without attracting any attention? The first data protection act was a directive in 1995 and, following suggestions from the European Data Protection Supervisor (EDPS), it was not until 2012 that, at the European Commission's initiative, this area of law became the subject of a major reform spanning over five years.[2] The EDPS's Opinion in 2016 further informed the wider debate by reference to a triangle

[1] See, e.g., COMP M. 4731, *Google/DoubleClick*, 11 March 2008; COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010; COMP M. 6281, *Microsoft/Skype*, 7 October 2011; COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017; COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014.

[2] See, e.g., Directive 95/46/EC, the European Data Protection Directive on the protection of individuals with regard to the processing of personal data and on the free movement of such data; European Data

among data, consumer protection, and anti-trust enforcement, with a specific focus on mergers.[3] By recognising that cyber space is a threat to privacy, personal data and the very basic principle of non-discrimination, the EDPS united these three areas of law through the legal requirement of fairness, i.e., fair processing of data versus fair competition to consumers (B2C) and protection against unfair competition (B2B).

In digital markets, it is often the case that anti-competitive practices will infringe two or more applicable legal frameworks. It is therefore expected that consumer, data and competition authorities should work together towards establishing forms of mutual and practical cooperation during investigations. But this problem is not resolved so simply. As is often the case, cooperation can cause delays. Furthermore, too-large a chain of responsible actors might also lead to an ineffective solution. Instead, a more pragmatic approach to big data is for the European Commission to activate its public policy clause whenever this is really needed. The answer to this last question will be offered in the final section.

II. Data-Driven Mergers – A Few Preliminary Observations

Recent years have witnessed a number of high profile merger cases in high-technology markets: the sole acquisition by Microsoft of Skype, a provider of internet-based communications services and software; the acquisition of WhatsApp by Facebook, active as providers of text, photo, voice

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Protection Supervisor's Opinion on European Commission's Communication 'A Comprehensive Approach to Personal Data Protection in the EU', 22 June 2011; the European Commission's proposal to strengthen online privacy rights and the digital economy, 25 January 2012; European Data Protection Supervisor's Opinion on EC data protection reform package, 7 March 2012; The Article 29 Working Party's Opinion on data protection reform proposal, 23 March 2012; WP 29 update on data protection reform, 5 October 2012; the EU Parliament adopted the General Data Protection Regulation on 12 March 2014 with overwhelming support in its favour; European Data Protection Supervisor's recommendations on the final text of the GDPR, 27 July 2015; the European Parliament, European Commission and Council reach an agreement on the GDPR on 15 December 2015; Article 29 Working Party's action plan for the implementation of the GDPR, 2 February 2016; and finally, on 27 April 2016 Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data is adopted, which entered into force on 25 May 2018, as well as Directive (EU) 2016/680 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data; on 10 January 2017, the European Commission proposed two new regulations on privacy and electronic communications (ePrivacy) and on the data protection rules applicable to EU institutions (Regulation 45/2001) that align the existing rules to the GDPR; Data Protection Directive for the police and justice sectors into national legislation on 6 May 2018; Proposal for a Regulation on the protection of personal data in EU institutions on 22 May 2018.

[3] See the European Data Protection Supervisor's Executive Summary of the Opinion of the European Data Protection Supervisor on effective enforcement in a digital society economy, OJ C 463/09 [2016], highlighting how cyber space represents a threat to privacy, personal data and the principle of non-discrimination as 'antitrust has its roots in political decisions to disrupt abusive monopoly power for the benefit of society at large. Consumer rights emerged as a bulwark against abusive traders. Big Data opportunities for boosting productivity and connectivity should be accompanied by Big Data Protection safeguards'.

and video message apps for smartphones; the acquisition of Tele Atlas, a producer of navigable digital map databases by TomTom, the largest supplier of portable navigation services in Europe; the merger between Publicis, a French international communications and advertising group and Omnicom, a US-based global advertising, marketing and corporate communications company; the acquisition of LinkedIn, which is active in the provision of sales intelligence solutions, by Microsoft, the latter being active, inter alia, in the provision of software solutions for customer relationship management; the acquisition by Telefonica UK, Vodafone UK and Everything Everywhere of a joint venture, JV, offering various mobile commerce ('mCommerce') services to businesses in the UK as a 'Wallet' platform; the joint venture involving Sanofi, a global pharmaceutical group, Google and JV, offering services for the management and treatment of diabetes; and the acquisition of Cegedim by IMS, both of which are active in the information technology sector, offering solutions to measure and improve the performance of companies active in the healthcare sector.

The effects of the above data-driven mergers have come to be felt and understood by not only competition scholars, but also practitioners.[4] In her recent speech, the Commissioner for Competition, Mrs Vestager, explained: 'People understand that handing over data has a cost. Because each time we share our data, we give up something very valuable. Something that could be used against us'.[5] Hopefully, the vast array of data from the above mergers will not come back to haunt us, the users of online platforms and other digital services. Five years ago, her predecessor mentioned that 'traditionally, the storage and treatment of personal data has been the province of laws and regulations designed to protect the privacy of citizens'; indeed, Mr Almunia was right that 'this will remain of paramount importance in the foreseeable future', as has recently been proven by the study of big data analytics.[6]

[4] Nonetheless, there is scant literature on the subject, which is largely attributed to notoriously lengthy merger decisions. For further references by practitioners, see P Werner, S Clerckk and H de la Barre, 'Commission Expansionism in EU Merger Control – Fact and Fiction', (2018) Journal of European Competition Law & Practice 9 (3), 139-141; G Lougher and S Kalmanowicz, ' EU Competition Law in the Sharing Economy', (2016) Journal of European Competition Law & Practice 7 (2), 92-93; 99-101; for a case-by-case brief review, see, M Kadar and M Bogdan, 'Big Data and EU Merger Control – A Case Review', (2017) Journal of European Competition Law & Practice, p. 1-9; B Holles de Peyer, 'EU Merger Control and Big Data', (2017) Journal of Competition Law & Economics (4) 13, p. 767-791, with a focus on so-called 'theories of harm' but arguing against the review of privacy considerations in mergers.

[5] See EU Commission, Commissioner for Competition, Speech: 'When technology serves people', 1 June 2018, Budapest, p.2.

[6] See, e.g., EU Commission, Commissioner for Competition, Mr J Almunia, Speech: 'Competition and personal data protection', Brussels, 26 November 2012. Although the Commission did not define a market for personal data, the Commissioner considered that this was not something that should be ruled out altogether. The *Google/Double Click* merger, however, involved a combination of personal data about search and web browsing behaviour, but was, unfortunately, not considered as such.

Merger case	**Investigation**	**Remedies**	**Length: 1,599**
Google/Double Click 2008	Phase II	Article 8 (1) compatible	98 p.
Microsoft/Yahoo 2010	Phase I	Article 6 (1) (b) compatible	45 p.
Microsoft/Skype 2011	Phase I	Article 6 (1) (b) compatible	38 p.
Microsoft/LinkedIn 2016	Phase I	Article 6 (1) (b) in conjunction with Article 6 (2) compatible with commitments	117 p.
Facebook/WhatsApp 2014	Phase I	Article 6 (1) (b) compatible	36 p.
Telefonica/Vodafone 2012	Phase II	Article 8 (1) compatible	133 p.
Sanofi/Google 2016	Phase I	Article 6 (1) (b) compatible	15 p.
IMS Health/Cegedim 2014	Phase I	Article 6 (1) (b) in conjunction with Article 6 (2) compatible with commitments	96 p.
TomTom/TeleAtlas 2008	Phase II	Article 8 (1) compatible	63 p.
Publicis/Omnicom 2014	Phase I	Article 6 (1) (b) compatible	131 p.
IMS Health/Cegedim Business 2014	Phase I	Article 6 (1) (b) in conjunction with Article 6 (2) compatible with	96 p.

		commitments	
Hutchinson 3G UK/Telefonica UK 2016	Phase II	Article 8 (3) prohibited	731 p.

(a) Free Product or Service in Return for Data

First, it is helpful to illustrate the relevance of data in the context of free products or services. In the area of mergers, the decision in *Publicis/Omnicom* offers an excellent definition of 'big data' analytics. Its primary goal is to help 'companies make better business decisions by enabling data scientists and other users to analyse large volumes of transaction data as well as other data sources that may not be assessed by conventional business intelligence programmes'.[7] Data and its analytics are the 'raw' material and a 'tool' used by advertising agencies to create advertising messages and deliver them to consumers.[8] In essence, one can simply say that the study of data analytics is effectively examining the means to implement and achieve marketing strategies and targeted advertising, which is normally captured by consumer law.

Subsequently, this decision also makes an extremely important distinction among three different kinds of services offering marketing information, market research and media measurement.[9] The first consists in the provision of data to individual consumers for direct marketing purposes, which is tantamount to targeted advertising. The second consists of measuring actual purchasing patterns through retail tracking or data obtained from consumer panels. The last one refers to measuring the audience of specific media, such as television and the Internet.

One of the most important instances of gradual recognition in data-driven mergers is the free offering of a product or service which can be monetised through other means. For example, in *Facebook/WhatsApp, Microsoft/LinkedIn* and *Microsoft/Yahoo*, consumer communications apps, social and professional networking services, and internet search services are all recognised as being provided 'free of charge' or free from 'monetary charges' but they could, nonetheless, be 'monetised' through other means, including advertising or charges for premium services.[10] In *Microsoft/Skype*, it was mentioned that it is difficult to monetise consumer communications, as

[7] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 617.
[8] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 622.
[9] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 618.
[10] See, e.g., COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, paras 31 and 47; COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 87; COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 33.

competitors offer them free of charge, and an estimated 75% of Skype users would even give up Skype rather than pay for its use.[11] The General Court stated on appeal that 'the fact that the services are offered free of charge is a relevant factor in assessing the market power of the new entity. (…) any attempt to make users pay would run the risk of reducing the attractiveness of those services and of encouraging switching'.[12] In *Facebook/WhatsApp*, it was noted that 'users of consumer communications apps tend to be very price-sensitive and expect communications apps to be provided for free'.[13] A contrasting example of monetisation is *Hutchinson 3G UK/Telefonica UK*, which acknowledges that the mobile market in the UK is 'more and more data centric, customer demand for data is increasing and all operators seek to monetise this trend' and that data has become 'an important competitive criterion'.[14] Very close to a similar recognition of data analytics services is *Publicis/Omnicom* where the merging parties have marketing data analytics capabilities which were used in house for targeted advertising.[15] In other words, the parties claim that their analysis of consumer data is 'an intrinsic part' of their own service.

In *Telefonica/Vodafone/Everything Everywhere/JV*, the most significant inquiry is into the relevant market for data analytics services in order to collect and analyse mobile usage data from the merging parties and advertising services and to provide customers with 'valuable insights into consumer behaviour'.[16] Business analytics of this kind include prospective analytics with a view to increasing the customer base, cross-selling and loyalty analytics.[17] The Commission recalled that, in *WPP/TMS*, it had previously identified a separate market for research services and media measurement services aimed at measuring and understanding consumer attitudes and purchasing behaviour and the market for marketing information services in *VNU/ACNielsen*.[18] The latter referred to the supply of personal and/or sensitive data, such as address, age, social group, activities, habits of consumption etc., which could be used for direct marketing purposes. Due to

[11] COMP M.6281, *Microsoft/Skype*, 7 October 2011, paras 86 and 76.
[12] *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635, para 73.
[13] COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 90.
[14] COMP/M.7612, *Hutchinson 3G UK/Telefonica UK*, 11 May 2016, paras 435 and 517 respectively. At para 794, there is a further reference to another mobile operator, O2's plans to make data sharing between mobile devices and people 'easier than ever before'. Later, at para 1076, Virgin Media and TalkTalk are mentioned as 'ideally placed to offload a proportion of their mobile customers' data traffic onto their fixed networks in a cost efficient manner'. These examples show how internet companies are also capable of harvesting big data.
[15] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, paras 11 and 619.
[16] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 191.
[17] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 192 and 193.
[18] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 197; COMP/M. 5232, *WPP/TMS*, 23 September 2004, para 13; COMP/M. 2291, *VNU/ACNielsen*, 12 February 2001, paras 10 to 12.

the rather ambiguous responses received, the Commission left it open whether there should be a separate market for online and mobile data analytics.[19]

However, from the area of abuse of a dominant position, the recent decision in the *Google Comparison Shopping* case highlighted that the fact that a product or service is offered free of charge does not prevent such an offering from being considered an economic activity.[20] This is an evolutionary recognition of data as the new currency in digital markets.

It is difficult but not impossible to examine a degradation of quality. As advanced elsewhere, the focus can be shifted from the price variation to small but significant and non-transitory changes in quality (SSNIQ).[21] Another excellent point raised by Gal and Rubinfeld is that 'we should not automatically exempt free goods from antitrust scrutiny'.[22] Ultimately, there is no 'free' product. As one commentator observed:

'We do not pay money for Google's services. But someone pays for its thousands of engineers, and that someone is advertisers. (…) We also pay in our ignorance of how the company operates (…), and how it uses the data it collects'.[23]

(b) Dual-sided platforms

The second important recognition in the above merger decisions is that such services are offered through the medium of 'two-' or 'multi-sided' platforms.[24] As in traditional transactions, such dual-sided platforms might offer one service for free, but extract revenues from the other side of

[19] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 202 and 203.

[20] See EU Commission, COMP Case AT. 39740, *Google Search (Shopping)* decision, 27 June 2017, published on 18 December 2017, para 152; citing the General Court rulings in *Microsoft* and *Cisco & Messagenet*, see GC, Case T-201/04, *Microsoft*, ECLI:EU:T:2007:289, paras 966-970, and GC, Case T-79/12, *Cisco Systems and Messagenet v Commission*, ECLI:EU:T:2013:635, paras 65-74.

[21] See, e.g., M Gal and D Rubinfeld, 'The Hidden Costs of Free Goods: Implications for Antitrust Enforcement'. (2016) Antitrust Law Journal (80) 3, 540.

[22] See, e.g., M Gal and D Rubinfeld, 'The Hidden Costs of Free Goods: Implications for Antitrust Enforcement'. (2016) Antitrust Law Journal (80) 3, 542; this is because 'a free good does not imply a lack of adverse welfare effects'. The authors suggested the use of a presumption of legality for free goods, with the burden of proof on those arguing otherwise. In practice, this would imply that competition authorities would need to produce evidence of consumer harm inflicted by free goods.

[23] See, e.g., F Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Cambridge, MA, Harvard University Press, 2016), p. 66.

[24] *Microsoft/Yahoo! Search*, 18 February 2010, para 47; COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 87: LinkedIn offers a multi-sided platform, which enables users 'to connect, share, discover and communicate with each other across multiple devices and means'; COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 290; COMP M. 4523, *Travelport/Worldspan*, 21 August 2007, where the Commission defined the two-sided market for Global Distribution Systems which operates as a wider platform between upstream travel providers, such as airports, hotels and car rentals, and downstream intermediary agents.

the same platform.[25] The economic designation of these online platforms is circular, as the transaction itself is still a bilateral contract rather than the unilateral stipulation of a free gift.

Therefore, in spite of the convoluted terminology, online platforms continue to operate legally under the same assumption of a traditional contract of sale. In this scenario, in return for a free service, users then offer their own experience data. Third parties, i.e., advertisers or retailers, may even secretly offer monetary considerations to have access to such data.

The cause of multi-sidedness is, of course, data which accounts for monetary consideration. This is not surprising, as digital payments have nowadays resulted in the lapse of money in favour of more innovative technologies where use of cards has overtaken the use of money in exchange for goods. So why not have *data* in return for service offerings? Whilst the driver of such platforms is inevitably an exploration of new avenues for attracting users to the mouse trap of a free service, the transactional exchange of data has de facto become the new currency operating in digital markets. In the area of abuse of a dominant position, it has more recently been recognised in the *Google Comparison Shopping* case that 'offering a service free of charge can be an advantageous commercial strategy, in particular for two-sided platforms'.[26]

'Even though users do not pay a monetary consideration for the use of general search services, they contribute to the monetisation of the service by providing data with each query'.[27] This paragraph effectively recognises competition that is not based on price, as there are other parameters of competition.[28] In the same spirit, the Director-General for Competition, Mr Laitenberger, declared: 'Now in many digital markets, price – as we used to understand it – plays no decisive role since the services are not monetised on the consumer side, or at least there is no

[25] On the benefits of dual-sided online platforms, see AD Chirita, 'Google's Anti-Competitive and Unfair Practices in Digital Leisure Markets' (2015) 11 (1) *Competition Law Review*, p. 113 and the general literature referred to in footnote 33.
[26] EU Commission, COMP Case AT. 39740, *Google Search (Shopping)* decision, 27 June 2017, published on 18 December 2017, para 159.
[27] EU Commission, COMP Case AT. 39740, *Google Search (Shopping)* decision, 27 June 2017, published on 18 December 2017, para 158.
[28] EU Commission, COMP Case AT. 39740, *Google Search (Shopping)* decision, 27 June 2017, published on 18 December 2017, para 160: 'even though general search services do not compete on price, there are other parameters of competition between general search services', which include the relevance of results, the speed with which results are provided, the attractiveness of the user interface and the depth of indexing the web.

price expressed in monetary terms'.[29] Data protection has therefore been recognised as 'an important parameter of competition' on the basis of quality.[30]

To sum up, cyber space is driven by online platforms which know how to monetize, monopolise and control their users' online experiences and behaviour.[31]

(c) To Define, or Not to Define the Relevant Markets: That Is the Question but What Are the Practical Implications?

In the overwhelming majority of the merger decisions under review, the Commission has been rather Kaplowian[32], as it has repeatedly ruled that 'the exact market definition' can be 'left open'.[33] A sensible explanation provided in Kaplow's scholarship is that the process of defining markets 'entails unnecessary work' and the outcomes are 'inferior to those arising when it is eschewed entirely'.[34]

The Commission, however, spent considerable energy in analysing each potentially narrower relevant market. In *Facebook/WhatsApp* and *Microsoft/LinkedIn*, for example, it questioned whether social networking services and consumer communications apps could be further divided accorded to their intended use.[35] On the basis of functionality and the availability on operating systems and on different platforms, consumer communications apps can indeed be divided

[29] EU Commission, Director-General for Competition, Johannes Laitenberger, Speech: EU competition law in innovation and digital markets: fairness and the consumer welfare perspective, Brussels, 10 October 2017, p. 6.
[30] EU Commission, Director-General for Competition, Johannes Laitenberger, Speech: EU competition law in innovation and digital markets: fairness and the consumer welfare perspective, Brussels, 10 October 2017, p. 9; 'we see data protection as an element of the quality of the product', p. 10.
[31] In the same vein, see, e.g., CJ Hoofnagle, Federal Trade Commission Privacy Law and Policy, chapter 6 on 'Online privacy' (Cambridge, Cambridge University Press, 2016), p. 146.
[32] See, e.g., Louis Kaplow, 'Why (Ever) Define Markets?', (201) *Harvard Law Rev* 124, 438-517, suggesting that 'it is difficult to render coherent the process of inferring market power from market shares in redefined markets'.
[33] See, e.g., COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 33; COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 81; COMP M. 6281, *Microsoft/Skype*, 7 October 2011, para 43; COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 87.
[34] See, e.g., Louis Kaplow, 'Market Definition' in Roger D Blair and D Daniel Sokol (eds) *The Oxford Handbook of International Antitrust Economics* (Oxford University Press, Oxford, 2015), vol. 1, 350; in support of Kaplow's assertion, see, e.g., Mark A Lemley and Mark P McKenna, 'Is Pepsi Really a Substitute for Coke? Market Definition in Antitrust and IP' in Roger D Blair and D Daniel Sokol (eds) *The Cambridge Handbook of Antitrust, Intellectual Property, and High Tech* (Cambridge University Press, 2017), 195; on the pitfalls of too narrow or too wide market definitions, see, e.g., AD Chirita, 'Editorial: Competition and Regulatory Trends in Digital Markets', (2017) Competition Law Review 12 (2), p. 122.
[35] See, e.g., COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 60, where Facebook offers a richer experience compared to WhatsApp, which offers a 'more personal and targeted' one; COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 95 and 97; there is an increasingly overlapping pattern where similar services initially targeting individuals have expanded to reach out to professionals; see para 89; COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 87; COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 33.

further. WhatsApp was offered only on smartphones, but not on tablets and PCs.[36] In *Microsoft/Yahoo Search!*, the Commission questioned an eventual distinction between search and non-search advertising and whether, beyond advertising, intermediation via software vendors, internet search providers and distribution agreements, with hardware manufacturers on entry points to search engines, are relevant markets.[37] Similarly, in *Microsoft/Skype*, the Commission questioned a further division of the market for consumer communications on the basis of its functionalities (IM, voice or video calls); operating systems (Windows, Mac, Linux, Android etc.); and platforms (PCs, smartphones and tablets).[38] It recognised that there was a market for enterprise communications.[39] Narrowly defined markets for the provision of online advertising space, intermediation in online advertising and the provision of ad serving for display ads was yet another useful recognition in *Google/DoubleClick*.[40] For the latter market, the Commission contemplated a further subdivision between the provision of such services to advertisers and publishers.[41] It considered, however, that there was no need to identify even narrower markets for the provision of search and non-search advertising space or further subdivisions of intermediation.[42]

However, in *Facebook/WhatsApp,* the Commission was not yet prepared to recognise separate markets for the 'provision of data or data analytics services'.[43] Similarly, in *Publicis/Omnicom*, the Commission considered that there was no need to further narrow down the sales side of the 'media buying services' market into large- and small-scale advertisers or on the basis of the type of media, sector or size of account.[44] As previously, the Commission considered that the 'exact scope of the relevant product market can be left open'; this is because the merger did not raise serious doubts regarding any possible market definition.[45]

In *TomTom/Tele Atlas*, the Commission examined the relevant upstream market for the provision of digital map databases and the intermediation software market.[46] The latter uses an algorithm

[36] COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 18.
[37] *Microsoft/Yahoo! Search*, 18 February 2010, paras 75 and 87.
[38] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, paras 29, 42 and 55. It did so also for the market for enterprise communications services, questioning whether this particular market needs to be further narrowed on the basis of operating systems.
[39] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, para 187.
[40] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, paras 56, 68 and 81 respectively.
[41] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 81.
[42] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, paras 56 and 73 respectively.
[43] See, e.g., COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 72.
[44] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, paras 27, 70, 75, 79 and 80.
[45] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 92. This was because the combined market share of the merging parties was below 15%, see, para 142.
[46] See, e.g., COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, paras 38 and 45. A digital map will normally include relevant data, such as street names, addresses, driving directions, turn restrictions and speed limits;

to calculate routes, including offering voice guidance.[47] TomTom is active in two downstream markets for the provision of navigation software and as a manufacturer of portable navigation devices.[48] Companies active in these markets use the same input. Although the Commission contemplated, again, narrowing down the relevant market for navigable digital map databases according to the type of navigation device, e.g., Personal Digital Assistant, GPS-enabled mobile telephone and 'in-dash' navigation device, it ultimately chose not to do so.[49] It left open the exact delineation of the relevant product markets, as this did not affect the proposed merger.[50]

In *Hutchinson 3G UK/Telefonica UK*, the Commission defined a single market for retail mobile telecommunications services to end customers, but did not divide it further by type of service, e.g., voice, data or SMS; by type of network technology, i.e., 2G, 3G and 4G; or by end-user.[51] It considered it inappropriate to narrow down separate markets for voice services, SMS/MMS services and data services,[52] which could have considered the implications of data usage and traffic. Similarly, in *Telefonica/Vodafone*, the Commission examined a fast-growing sector of mobile Commerce, 'mCommerce', including mobile payments, advertising and, most importantly, data analytics.[53] It identified the relevant market for the wholesale supply of mobile wallet platforms, but 'left open' whether a market for secure storage also includes secure storage on devices attached to the handset or cloud-based solutions, or whether the market for online advertising should be narrowed down further to search and non-search services.[54]

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see para 17. Digital maps are sold to manufacturers of navigation devices for address location, route planning and navigation; see para 19. There are on-board, off-board and hybrid navigation software systems; see para 46. The Commission considered that it was inappropriate to identify separate markets depending on the type of navigation device in which the software is used; see para 51.

[47] More specifically on algorithmic consumers, as systems likely to collect, record and aggregate immense volumes of personal data; see, e.g., M Gal and N Elkin-Koren, 'Algorithmic Consumers', (2017) Harvard Journal of Law and Technology 30 (2), p. 324.

[48] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 14. This vertical merger is a case of upstream market integration where a producer acquires its main provider of an important input.

[49] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, paras 28 and 29. There was, however, a limited substitutability of navigable digital map databases, see para 32, as the 'greater the geographic coverage of map data and content, the higher the licence fee' that had to be paid, see, para 31.

[50] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 38, i.e., whether or not individual country or regional licences constitute separate product markets.

[51] See, e.g., COMP/M.7612, *Hutchinson 3G UK/Telefonica UK*, 11 May 2016, paras 251, 255 and 259. This was because all providers offer all these kinds of services to end-customers. At para 265, it was noted, however, that in the UK, competition in the mobile market is increasingly 'data-centric', i.e., based on sale of data packages. The latter cover Internet data usage and traffic as part of a monthly data allowance.

[52] COMP/M.7612, *Hutchinson 3G UK/Telefonica UK*, 11 May 2016, para 262.

[53] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 26 and 88.

[54] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 102, 110 and 151 respectively.

The narrowest relevant market could be the market for mobile contactless or off-line payments.[55] Leaving these aside, JV would be acting as an intermediary for the one-stop-shop sale of digital advertising, including 'push' and 'intelligent bulk' SMS', 'pull offers', display advertising, coupons and vouchers.[56] With regard to 'non-intelligent' bulk SMSs, the respondents submitted to the Commission that these are part of generic advertising and therefore not interchangeable with targeted advertising.[57] In contrast, the merging parties submitted that targeted advertising should be treated similarly to display advertising in order to reach out to their desired consumer audience.[58]

Due to the technical and commercial features of mobile advertising, e.g., the size of ads and the possibility of advertising outlets near the location of a smartphone holder, the Commission considered the existence of a sub-market for mobile search advertising; thus, this was also 'left open'.[59] However, the majority of the respondents to the Commission's survey submitted that, within mobile advertising, targeted marketing messaging should be considered as a separate market from search and non-search advertising.[60] The two markets were not substitutable due to existing differences in marketing scope and reach, campaign objectives, advertising functions, pricing models, targeting possibilities, consumer data collection and consumer behaviour.[61]

In 2012, the recognition of such a market would have been significant, as the tracking technology would have clearly been able to exploit the personal location data of mobile subscribers. As described in this merger decision, the conduct would have involved targeted advertising only, rather than the sharing of location data with retailers, more specifically, for achieving online price discrimination. However, one could also argue that targeted advertising on the basis of location

[55] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 123.
[56] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 140 to 142; however, JV would not be acting for the supply of intermediation services for search advertising.
[57] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 189 and 190. Therefore, retail bulk SMS services constituted a separate market from active marketing messaging.
[58] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 146.
[59] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 152 and 159.
[60] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 160. This is because the two services were seen as complementary, not substitutable.
[61] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 161. For the characteristics of 'mobile push advertising', see para 168, namely, being highly targeted to users, able to elicit an immediate customer response, to allow the advertisers to accurately measure the campaign success and consumer engagement and very attractive to users as offers are clipped to the wallet and can be redeemed simultaneously with the payment.

tracking is only a first necessary step towards the implementation of behavioural price discrimination.[62]

In *Microsoft/LinkedIn*, the software solution offered by Microsoft helps companies to manage customer interactions from sales, marketing or customer databases. It is involved in the collection of data sets so as to boost sales or improve data quality.[63] LinkedIn offers sales intelligence solutions to professionals interested in personal data, financial information or contacts metrics in order to reach out to potential customers.[64] To its premium members, LinkedIn offers a Sales Navigator solution, which uses its users' database to identify sales opportunities. Here, the Commission identified another relevant market for the provision of intelligence sales solutions.[65] However, it did not narrow down the market for social networking platforms based on their intended use, i.e., personal and professional-centric social networks, due to an overlap of functionalities.[66]

In *Sanofi/Google/DMI JV*, the newly created joint venture offered several services using an integrated digital e-medicine platform developed by Google for the system delivery and monitoring of insulin and glucose for the management and treatment of diabetes as well as data analytics services.[67] The exact scope of the market definition was initially left open, but later focused on data collection, display, storage, analysis and transmission related to the management and treatment of diabetes.[68] The Commission referred to its previous examinations of data analytics, outside the healthcare sector, where it was appropriate to differentiate between marketing information, market research and media measurement services.[69] Some of the respondents submitted to the Commission that the algorithms and tools used to analyse healthcare data are comparable to those used for the analysis of other types of data.[70] However,

[62] For earlier arguments on these issues and, more specifically, on targeted advertising and online price discrimination, see, e.g., AD Chirita, 'The Rise of Big Data and the Loss of Privacy', in M Bakhoum, B Gallego Conde, MO Mackenordt and G Surblyte (eds) *Personal Data in Competition, Consumer Protection and IP Law – Towards a Holistic Approach?* (Berlin, Heidelberg, Springer, forthcoming 2018), p. 11-17; specifically on behavioural price discrimination, see, A Ezrachi and M Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy* (Cambridge, MA, Harvard University Press, 2016), p. 112-143.
[63] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 31.
[64] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 57.
[65] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 68.
[66] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 97 and 98. Respondents to the Commission's survey suggested that the creation and updating of a detailed resume or CV is an essential functionality of this platform, see para 101.
[67] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, paras 6 and 17.
[68] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, paras 37, 38 and 42.
[69] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, para 17.
[70] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, para 46.

the joint venture did not raise competition concerns, regardless of whether there is a separate product market for algorithms for analysing healthcare data.[71]

In *IMS Health/Cegedim Business*, the Commission examined healthcare professional databases; sales tracking data; data for the provision of real world evidence, i.e., observational studies, data collected on actual patient experiences and use of a product in clinical trials; and the primary market research services.[72] Business intelligent solutions included tracking technologies and data analytics, including aggregation, matching, consolidation and verification.[73] Again, the exact delineation of the markets for the provision of healthcare professional databases and for sales tracking data was left open.[74] The Commission did not narrow down the market for the provision of business intelligence solutions,[75] though the latter could have looked at the functionality of the software for reporting and analysis or for advanced analytics, including data mining and statistics.[76]

Thus, one could reach a preliminary conclusion. The implications of offering 'open' rather than closed market definitions is adding to a nebulous understanding of online platforms, as these are actively involved in a variety of tiny markets; some of the latter are engaged in the study of big data analytics.

(d) Is a Quick Look at the Market Shares Self-Revealing or Self-Defeating?

In the market for consumer communications, there were only two close competitors: WhatsApp, with a 20-30% share of this market, and Facebook Messenger, with 10-20%, alongside Skype, with 5-10% and Twitter, with 5-10%.[77] Following the *Facebook/WhatsApp* merger, Facebook could have strengthened its position in the market for social networking services by adding users and/or functionalities.[78] This aspect was, however, mitigated by the fact that around 70-90% of WhatsApp's users were already active on Facebook, too.[79]

[71] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, para 48; in fact, the parties considered it inappropriate to narrow down the market for data analytics and argued instead that health data is subject to special regulation, see, para 45.
[72] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, paras 9-24, 26, 49.
[73] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, paras 40-41.
[74] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, paras 73 and 80.
[75] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, para 105.
[76] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, para 99.
[77] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, paras 84 and 94.
[78] COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 159. Another example where the merging parties were close competitors is COMP/M.7612, *Hutchinson 3G UK/Telefonica UK*, 11 May 2016, para 417.
[79] COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, paras 159 and 162.

In the worldwide market for the provision of navigable digital map databases within the European Economic Area, Tele Atlas was the largest duopoly player.[80] Similarly, in *Publicis/Omnicom*, the merger was likely to lead to a duopoly in certain national 'media buying marketing' markets.[81]

DoubleClick and 24/7 Real Media/OpenAdStream on the one hand, and DoubleClick and aQuantitative Atlas on the other, enjoyed 40-50% and 35% shares of the market respectively, while Microsoft enjoyed a just below 5% market share of the marketing segment.[82] In the UK, the retail market for mobile telecommunications services was found to be 'very concentrated' in *Hutchinson 3G UK/Telefonica UK*, being dominated by four players with over 90% of all subscriptions and revenues.[83]

Looking at the revenues from advertising, in 2006, Google possessed an approximately 20—40% share of online advertising worldwide, whilst Microsoft's Dynamic 365 solution was fourth after Oracle's Adaptive Intelligent Apps by Data Cloud.[84] In terms of usage, Facebook Messenger attracted around 100-200 million users in the European Economic Area compared to 50-150 million users of WhatsApp.

Google was clearly dominant in the area of universal search with 90-100% compared to Microsoft with 20-30% and Yahoo Search with 10-20% in the EU, including shares below 5-10% in 2009. LinkedIn's Sales Navigator relies on a database of around 430 million users and could, therefore, become an 'important input'.[85] Microsoft's Windows Live Messenger had an approximately 90-100% market share, with Skype having 70-80% on PCs in 2011, Microsoft's WLM having around 30-40%, and Skype's video calls having 40-50%. This showed that both Microsoft and Skype were close competitors. Having attracted 600 million users, WhatsApp was definitely more popular than Facebook Messenger in 2014 compared to the latter with 250-350 million.[86]

The philosophy underpinning the Commission's interpretation of market shares is that in the fast-growing high-technology sector 'high market shares are not particularly indicative of competitive

[80] COMP/M.4854, T*omTom/Tele Atlas*, 14 May 2008, para 80.
[81] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 631. This will enable the merging parties to impose conditions on media vendors and to attract more advertisers, to the competitive disadvantage of smaller rivals.
[82] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 268. Given that this is a highly innovative business model, what should matter most is the potential to exploit the relevant data rather than the market share coverage.
[83] COMP/M.7612, *Hutchinson 3G UK/Telefonica UK*, 11 May 2016, para 411.
[84] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 198 and 200. Oracle's app offered access to over 5 billion global consumer profiles and 400 million Business-to-Business profiles. Adobe's analytics is also active in marketing, being second most competitive in terms of price.
[85] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 203 and 246 respectively.
[86] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 128.

strength'.[87] These figures are not self-defeating but must, nonetheless, be seen in the context of dynamic competition based on innovation. Therefore, in *Microsoft/Skype* and *Facebook/WhatsApp*, the Commission repeatedly stated the same underlying assumption, namely, that 'the consumer communications sector is a recent and fast-growing sector which is characterised by short innovation cycles in which large market shares may turn out to be ephemeral'.[88] Furthermore, following the appeal in *Cisco & Messagenet*, the same contextual consideration of dynamic competition prevails in *Facebook/WhatsApp*, in that

'the very high market shares and very high degree of concentration on the narrow market, to which the Commission referred merely as a basis for its analysis, are not necessarily indicative of market power.'[89]

The only difference is a subsequent reference to the above context as enabling 'the new entity to significantly impede effective competition' in *Cisco & Messagenet* and to 'lasting damage to competition' in *Facebook/WhatsApp* respectively.

Finally, one could say that looking at market shares is a bit delusional given the particular context of high technology markets, but the temporal dimension is more helpful in correcting such misperceptions.

(e) Were Alternatives Available?

This is a straightforward question in the merger decisions under consideration, but it is dependent on how narrow the relevant markets had previously been defined. In four of these mergers, namely, *FacebookWhatsApp, Microsoft/LinkedIn*, *Microsoft/Yahoo!Search* and *Google/DoubleClick*, a good number of available alternatives to both merging parties were found as follows: to Facebook, e.g., Google+, LinkedIn, MySpace, Pinterest, InterNations,[90] and WhatsApp, e.g., iMessage (Apple), BBM (Blackberry), ChatON (Samsung), Hangouts (Google), Android, and Skype (Microsoft);[91] to LinkedIn, there are a number of alternatives available that are specialised in 'social networking services', e.g., Xing, Viadeo, GoldenLine, Academia, Behance, Doximity,[92] and Microsoft, e.g., LinkedIn's Sales Navigator (Avention), Data.com, Dun &

[87] COMP M. 6281, *Microsoft/Skype*, 7 October 2011; on appeal, see, *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635, para 51.
[88] *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635, para 65; COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 99.
[89] *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635, para 74.
[90] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 49.
[91] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 85.
[92] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 90; as enterprise social networks facilitating communication among employees, see, Facebook's Workplace, para 93; on available alternatives, see,

Bradstreet, InsideView, and Twitter;[93] to Yahoo, e.g., Google, Microsoft, Yahoo, Ask, Yandex, AOL, Baidu and, obviously, to Microsoft; to DoubleClick, e.g., Google's AdSense, Yahoo! Publisher Network, Drive PM, Trade Double, Zanox, AdLink, Interactive Media, and AOL etc.; and to Google, e.g., Yahoo! and Microsoft for search advertising.[94] Alternative competitors to *Publicis/Omnicom*'s data analytics space included measurement and analytics providers, such as Omiture (Adobe), Google Analytics, Coremetrics (IBM), webtrends, comScore, Nielsen, Flurry, Marketshare, Neuralitic, Agent, Localytics and Tracksimple (Bluekai); Independent providers such as Turn, Invite Media (Google), Efficient Frontier (Adobe), The Trade Desk, MediaMath, DataXu and Accordant Media; and other ad agencies, such as WPP, IPG, Havas, Dentsu-Aegis, MDC Partners and iCrossing.[95]

It was solely in *Microsoft/Skype* that the merging parties were indeed close competitors; this was despite there being a number of alternatives, e.g., Microsoft's Windows Live Messenger, Skype, Google, Apple, Facebook, Yahoo! and AOL and Microsoft enterprise comms, Cisco, Citrix, IMB and Skype.[96] By contrast, Facebook Messenger and WhatsApp were found not to be close competitors on the basis of several indicia including, inter alia, the identifiers used to access the services, i.e., phone number for WhatsApp; the source of the contacts, i.e., users' address book for WhatsApp; user experience, which was richer for Facebook; the privacy policy on data collection for advertising and sharing; and the usage frequency.[97]

(f) Barriers to Entry and Switching Costs

As has rightfully been argued elsewhere,[98] the most important barriers to data collection, sharing and transferring are, of course, data protection and privacy laws.

In *Facebook/WhatsApp* and *Microsoft/Skype*, there were very low and low barriers to entry respectively.[99] Although there were no legal barriers to entry, such as patents, know-how and IPRs, in *Facebook/WhatsApp*, there were additional issues such as portability and

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paras 108 and 109; respondents indicated that it would be difficult to transform a personal social platform into a professional one, para 110.

[93] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 225.

[94] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014; COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017; COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010; COMP M. 4731, *Google/DoubleClick*, 11 March 2008.

[95] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 622.

[96] COMP M. 6281, *Microsoft/Skype*, 7 October 2011.

[97] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, paras 93, 102 and 107.

[98] For the view that data protection and privacy laws create legal barriers to the collection of data, see, e.g., D Rubinfeld & M Gal, 'Access Barriers to Big Data', (2017) Arizona Law Review 59: 339, p. 360; thus, this can be circumvented through anonymisation. The authors noted that, although paternalistic, privacy-based limitations of data collection protect the public interest, see p. 361.

[99] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 94; COMP M. 6281, *Microsoft/Skype*, 7 October 2011, para 77.

interoperability.[100] Switching was therefore problematic, as users, then, could lose all of their data and interaction history; thus, the messaging history remained accessible on smartphones.[101] There was, however, evidence of consumer switching in Germany.[102] Data portability was 'unlikely to result in a lock-in of users who typically retain access to message history on their handset even if they start using another consumer communications app'.[103]

In *TomTom/Tele Atlas*, customers had to reconfigure the new database when switching suppliers of navigable digital map databases. The Commission identified that barriers to switching were relatively limited to the reconfiguration cost, including that of modifying production tools to handle different data formats.[104] Elsewhere, however, it was recognised that, in the event of switching, a producer of digital map databases would have to spend substantial resources to collect any additional data necessary for navigation.[105]

In *Microsoft/Skype*, switching costs were higher if the users were charged for the service after a long time, but there were no technical or economic constraints. [106] In contrast, in *Microsoft/Yahoo Search!*, barriers to entry were very high; for example, $1 billion needed to be invested in hardware and human resources respectively.[107] It was also found that advertisers would no longer switch from adCenter to Panama.[108] Switching between ad serving suppliers also entailed additional costs in *Google/Double Click*, e.g., staff training and deployment. Although some of such costs could be significant, they are still 'manageable'.[109]

Ultimately, in *Publicis/Omnicom*, it was 'very easy' or 'somewhat easy' for advertisers to switch with no significant costs other than the cost of re-tendering.[110] As the market for marketing communications services is a 'highly fragmented and creativity-driven' market, barriers to entry

[100] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, paras 120 and 122 respectively.
[101] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 113.
[102] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 174.
[103] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 137; in addition, it was noted that users of consumer communications apps cannot be locked-in to any particular physical network or hardware solution; neither Facebook Messenger nor WhatsApp are pre-installed on a large base of datasets; and there is no 'status quo bias' potentially affecting consumer choice.
[104] COMP/M.4854, *TomTom/TeleAtlas*, 14 May 2008, paras 106 and 99 respectively. However, the costs of handling different database formats are not significant, see, para 102.
[105] COMP/M.4854, *TomTom/TeleAtlas*, 14 May 2008, para 25. This is more so since compiling and processing the necessary data is 'a very time-consuming process', see, para 26, because vast volumes of data have to be collected from various sources, and field survey teams have to drive down every road in the EEA and record all features on the way, see para 132.
[106] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, para 77; on appeal, see *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635, para 80.
[107] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 111.
[108] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 181.
[109] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, paras 137, 297 and 329.
[110] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, paras 227, 233 and 614.

are low, and termination of contracts is easy without incurring significant costs.[111] In addition, large advertising networks, including WPP, IPG, Dentsu-Aegis and Havas, will probably exert a significant competitive constraint on the merged entity.[112]

g) Network Effects

In *Facebook/WhatsApp*, the existence of network effects was 'unlikely to shield the merged entity from competition from new and existing consumer communications apps'.[113]

III. Post-Merger Innovation Incentives: Dead or Alive?

In the digital markets under scrutiny, one sensitive issue has been whether the merged entity will continue to invest in innovation. In *Facebook/WhatsApp*, the underlying assumption was that customers could easily switch to competing services if the merged entity were to reduce the amount of innovation.[114] Being recognised as 'recent and fast-growing', the consumer communications sector was portrayed as characterised by 'frequent market entry and short innovation cycles in which large market shares turn out to be ephemeral'.[115] However, as recent events have shown, digital giants like Facebook could lose their market share due to reputational damage following data breaches rather than to their innovation cycles. The latter are also referred to in *Microsoft/Skype* under the same assumption that, in these markets, innovation cycles are short-lived.[116] As both software and platforms are constantly redeveloped, innovators lead the market solely for a short while.[117]

In both *Microsoft/LinkedIn* and *Microsoft/Yahoo Search!*, there is recognition that the former entity, i.e., Microsoft, could make it more difficult for alternative intelligent solutions 'to compete and bring innovation in the market', whilst the latter, i.e., Yahoo, would require heavy investments in upgrading data, storage for a web search index and advanced algorithms.[118] There is a potential contradiction as, although Yahoo was recognised as a 'weak innovative force' that

[111] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 598. See, also, para 603, where respondents identified creativity as a key factor on the basis of which marketing communications service agencies are selected by customers alongside expertise, quality, delivery, price scale and absence of conflicts of interest.
[112] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 602.
[113] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 135.
[114] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 94.
[115] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 99. A Schumpeterian understanding of innovation cautions against the risks for competition authorities when assessing innovation incentives ex ante, which is also pervasive in the area of merger control; see,e.g., AD Chirita, 'Editorial: Competition and Regulatory Trends in Digital Markets' (2017) Competition Law Review 12 (2), p. 126.
[116] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, para 83.
[117] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, para 83.
[118] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 246; COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 140.

'may lose the ability to provide important innovations', Yahoo's incentives to innovate would not be reduced, as Google would have similar incentives.[119] The same conclusion was valid for Microsoft, in that it would be unlikely to reduce its incentives to innovate.[120] It was assumed that the new platform (*Microsoft/Yahoo Search!*) could compete more effectively with Google.[121]

Prospectively, these predictions have proved to be inaccurate. The post-merger reality is often a different one in which not all conglomerates become successful innovators. Retrospectively, one could question whether Yahoo/Search or LinkedIn are better services than before, in particular whether significant achievements based on innovation could also be highlighted.

IV. From Fictional Assumptions Disregarding Data to the Growing Relevance of Data

Prospectively, one could challenge such assumptions, which are known in mergers as 'counterfactual' scenarios. In *Google/DoubleClick*, there were a number of competitive advantages for Google following the integration of DoubleClick's ad serving technology with ad intermediation services, Double Click's customer base among publishers and advertisers, and data about consumer behaviour collected through ad serving.[122] This was a first indicator of the role of data. Furthermore, DoubleClick represented a 'key input into distribution channels that compete with Google's AdSense'; however, the combination of users' databases was thought unlikely to provide 'a considerable additional competitive advantage'.[123] A portability issue became apparent as advertisers had to transfer 'past' data from one system to another.[124] It was, however, estimated that less than 1% of former customers would require the migration of historical delivery data upon switching.

Another aspect that was neglected in *Google/Double Click* was the data collected by Double/Click, which contained information about a rich sub-set of the web-browsing behaviour of Double/Click users across all publishers' websites engaged in targeted advertising.[125] The latter had the potential to inflict consumer harm given that publishers are normally either paid or at least sponsored by businesses, including retailers. For example, tracking technologies could facilitate

[119] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, paras 141, 203, 206 and 219.
[120] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 275.
[121] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 192.
[122] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 225.
[123] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, paras 286 and 298. In contrast, the US FTC concluded that 'neither the data available to Google, nor the data available to DoubleClick, constitute an essential input to a successful online advertising product', see, P Jones Harbour, FTC, file no. 071-0170, Dissenting Statement in the Matter of Google/Double Click, 2007, p. 12.
[124] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 140.
[125] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 182.

online price discrimination on the basis of such targeted advertising.[126] Double Click's justification was that, although it had indeed collected behavioural data from its users, such data was used for a legitimate purpose only, namely, improving DoubleClick's service experience offered to advertisers.[127] Furthermore, the record of ads containing the 'prices paid by different ad networks' was in the form of *aggregated* data.[128] This could have partially met the data protection requirements.

Nonetheless, the variation in pricing could have been investigated further, in particular regarding whether tracking technologies were used to monitor users and whether the latter had meaningfully consented to this procedure. Rather, increasing the confusion, there is another specific reference to the fact that DoubleClick could not possibly have made the data in question available to 'others', presumably third-parties, publishers or advertisers, subject to a contractual express prohibition that was unlikely to be changed in the future.[129] This seemingly indicated that there was an inner circle of publishers and advertisers with which DoubleClick must have had a contractual relationship in return for an adequate consideration of their business interests. The argument based on confidentiality grounds is particularly weak. In this respect, DoubleClick argued that the relevant data would have been of limited use anyway. This was because of the confidentiality clauses included in the contractual arrangements with both advertisers and publishers.[130]

The *Google/Double Click* merger decision includes nevertheless a significant disclaimer at paragraph 360:

'it is not excluded that (…) the merged entity would be able to combine DoubleClick's and Google's data collections, e.g., users' IP addresses, cookies IDs, connection times to correctly match records from both databases. Such combination could result in individual users' search histories being linked to the same users' past surfing behaviour on the internet (…) the merged entity may know that the same user has searched for terms A, B and C and visited pages X, Y and Z in the past week. Such information could potentially be used to better target ads to users'.[131]

[126] For a suggestion that the ability to price discriminate on the basis of consumer preferences may be 'substantial', see, e.g., D Rubinfeld & M Gal, 'Access Barriers to Big Data', (2017) Arizona Law Review 59, 339, p. 378. The final conclusion, however, goes to the opposite direction by suggesting that the 'collection and analysis of big data has *undoubtedly* increased social welfare', see p. 381.
[127] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, paras 183 and 184.
[128] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 187.
[129] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, paras 188, 257 and 265.
[130] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 277.
[131] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 360.

There is no better evidence elsewhere that the merged entity could only consolidate its previous accumulation of data, which would make the tracking of users' locations easier.

All in all, in 2008, it was simply too early for data experts to be articulate about the monetisation of data, which justifies the above positive assumption about the lack of a competitive advantage based on data. It will be argued that the exclusionary focus based on access to data, or an ability to accumulate it, is a fallacy. What matters most is how data, once accumulated, is used to exploit online consumers.

However, many years later, in *Facebook/WhatsApp*, a closer examination of the data collected by the merging parties revealed that, on the one hand, Facebook collects data for the purpose of serving its users more targeted advertisements; Facebook also claimed that it does not sell or provide data analytics to advertisers or third parties.[132] On the other hand, WhatsApp claimed that neither does it sell advertising, or store or collect users' data for advertising purposes, and nor does WhatsApp collect its users' personal data, i.e., verified name; sensitive data, i.e., age, gender; and any other personally identifiable data including social groups, activities, consumer habits or other characteristics that are valuable for advertising purposes.[133] Based on WhatsApp's disclosure, it would appear that this platform offered its users enhanced privacy protection. This was, however, not so, as in 2012, WhatsApp was investigated by the Office of the Privacy Commissioner of Canada and the Dutch Data Protection Authority for having forced its users to give access to their entire address book without consent.[134] Apart from this, WhatsApp's privacy policy of 2012 is self-explanatory, as WhatsApp claimed that it did not collect its users' mobile address book, but actually, the company collected its users' mobile phone numbers. It also claimed not to collect location data or to target its users with advertisements.[135] Indeed, the policy clearly mentioned that WhatsApp does not 'sell or share your Personally Identifiable Information (such as mobile phone number) with other third-party companies for their commercial or marketing use without your consent or except as part of a specific programme or feature' for which users had the ability to opt-in or opt-out.

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[132] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 70.
[133] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, paras 71 and 166.
[134] See L Clark, 'WhatsApp breached data privacy laws by storing non-user contact details', Wired, 29 January 2013, available at http://www.wired.co.uk/article/whatsapp-privacy; last accessed June 2018; for the findings of the international investigation by the Canadian and Dutch data protection authorities, see, Office of the Privacy Commissioner of Canada, Final Report of the Findings: Investigation into the personal information handling practices of WhatsApp Inc., 15 January 2013, available at https://autoriteitpersoonsgegevens.nl/sites/default/files/downloads/rapporten/rap_2013-whatsapp-opc-final-report-of-findings.pdf.
[135] See, e.g., WhatsApp's archived privacy policy of July 2012, available at https://www.whatsapp.com/legal?doc=privacy-policy&version=20120707, subject to several notable safeguards concerning the security of the data and the opt-in and opt-out available procedures.

Ultimately, the objective justifications for data collection and sharing by WhatsApp are in line with those of similar platforms including, for example, the performance, improvement and maintenance of WhatsApp's own service or as part of a legal requirement, such as a court order, subpoena, search warrant or other equivalent. Another similar procedural safeguard put in place referred to the event of a merger, where

'in the event that WhatsApp is acquired by or merged with a third party entity, we reserve the right to transfer or assign the information we have collected from our users as part of such merger, acquisition, sale, or other change of control'.[136]

The above disclaimer is technically a procedural waiver for WhatsApp's previous data collection, which was intended to facilitate the transfer of data. However, such a procedural notice is given too early for its users to express any meaningful and informed consent, and personal data could simply be purchased from elsewhere, i.e., other third-parties.[137] Furthermore, such users had no realistic choice of blocking the merger anyway. The material scope of application of the data protection regime is confined to data breaches, not to merger reviews.

Facebook's submission was, however, in sharp contrast to Facebook's own privacy policy, which mentioned that it collects behavioural data, including its users' location, which Facebook shares not only with companies that are part of Facebook, but also with integrated third-party apps, websites or other services, including third-party advertisers.[138] Facebook sought consent only for sharing personally identifiable users' data with 'third party advertisers and analytics partners', but not for *aggregated* data sent to vendors, service providers and partners. Given Facebook's business model of offering a social networking platform free of charge, the revenues were extracted from advertising so that targeted advertising represented Facebook's default terms and conditions of trade. Indeed, Facebook did not consider asking its users for consent to use targeted advertising. Obviously, this model did not comply with the data protection regime, as whilst general advertising is annoying, targeted advertising must have exploited Facebook users' behavioural data. Also, the reference to advertisers as business partners is used interchangeably with vendors, which could include retailers or any other interested business parties.

[136] See also WhatsApp's archived privacy policy of July 2012.
[137] For the view that the 'notice-and-choice' frameworks are deeply undermined by the 'third-party problem', see, CJ Hoofnagle, Federal Trade Commission Privacy Law and Policy, chapter 6 on 'Online privacy' (Cambridge, Cambridge University Press, 2016), p. 146.
[138] See, e.g., AD Chirita, 'The Rise of Big Data and the Loss of Privacy', in M Bakhoum, B Gallego Conde, MO Mackenordt and G Surblyte (eds) *Personal Data in Competition, Consumer Protection and IP Law – Towards a Holistic Approach?* (Berlin, Heidelberg, Springer, forthcoming 2018), p. 17.

Most notably, Facebook also claimed that it would be 'unable to automatically and reliably associate a Facebook ID with a valid phone number used by a user on WhatsApp' and that technical integration of the two services was unlikely.[139] Nonetheless, in August 2016, WhatsApp updated its privacy policy to allow for linking WhatsApp users' phone numbers with Facebook users' identity in a move which was intended to 'improve customer experience'. The previous statement was proven to have been misleading and the Commission sent its statement of objections.[140] Due to such misleading statements, the Commission did not investigate the market for the provision of data or data analytics services.[141]

In *Publicis/Omnicom*, the merging parties made an astonishing revelation: first, that they did not control the primary source of data and, second, that they needed clients' databases and needed 'to purchase such data from various first-party data sources'.[142] The revelation should be persuasive for commentators who still question whether there is a dark rather than an open market for the sale of data. The Commission concluded that navigable digital map databases are 'important inputs' for device manufacturers and providers of navigation software.[143]

In *Microsoft/LinkedIn*, providers of competing software solutions claimed that LinkedIn's Sales Navigator could represent an 'important input'; furthermore, Microsoft could make it more difficult for alternative intelligent solutions 'to compete and bring innovation' into the market following this merger.[144] The LinkedIn Sales Navigator could potentially share users' datasets with third parties.[145] Again, this consideration was ignored because the sharing of personal data would undermine LinkedIn's own business model.

For example, in *Telefonica/Vodafone/Everything Everywhere/JV*, JV would send targeted marketing messages solely to mobile subscribers who had opted-in to receive them.[146] This would then be fully compliant with the data protection framework. Yet, had such subscribers not understood the hidden pitfalls of the terms and conditions of privacy, their consent might not have been meaningful. In addition, JV would aggregate behavioural data in the market for retail bulk SMSs,

[139] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, paras 138 and 139.
[140] See, e.g., European Commission, COMP/M. 8228, *Facebook/WhatsApp*, press release of 20 December 2016, 'Mergers: Commission alleges Facebook provided misleading information about WhatsApp takeover'. As a result, €110 million fine was imposed on Facebook for providing misleading information about the WhatsApp merger.
[141] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 72.
[142] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 624.
[143] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 165; thus, most providers considered navigable digital map databases as a 'key input' for navigation software, see, para 164.
[144] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 246.
[145] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 247 and 248.
[146] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 26 and 88.

with the assistance of computer software for originating messages, including routing SMS to any destination.[147] This would, however, require a significant investment in software and systems and the analysis of vast amounts of data.[148] The Commission considered it unlikely that the merging parties would discriminate between the bulk of SMSs sent by JV and those sent by competitors.[149]

It was put forward that JV's data analytics would involve the analysis of data on customers and their behaviour. JV would collect data from its mobile wallet platform and its advertising intermediation services so as to provide customers with valuable insight into consumer behaviour.[150] However, JV would not offer standalone data analytics. The personal and/or sensitive data including inter alia age, residential status, profession, and location would be anonymised, which will then meet the data protection requirements.[151] Some respondents were concerned that JV would develop a database that would become an essential input for targeted mobile advertising.[152] The merging parties mentioned competition from a range of data analytics providers, such as Google Analytics, Apple, Facebook, Visa, MasterCard, Experian, Acxiom, Amazon or eBay.[153] All of them possess sophisticated databases used for targeted advertising. Another concern was whether JV could foreclose competing providers of data analytics or advertising services by combining personal, location, response, social behaviour and browsing data. In other words, could JV create a unique database that would become an essential input for targeted mobile advertising that no other provider would be able to duplicate?[154] This was not the case, as the above data sets were already available to Google, Apple, Facebook, card issuers, reference agencies or retailers.[155] For example, Microsoft submitted that it can provide the 'same level of granularity' with regard to geo-location data.[156]

In conclusion, JV would be able to collect a vast array of consumer data for its mobile data analytics and advertising services.[157] As there are 'strong and established' competing players, JV

[147] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 493 and 494.
[148] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 511.
[149] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 514.
[150] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 531.
[151] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 532.
[152] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 534.
[153] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 535. In the UK, the market for data analytics and market research is worth £2.8 billion per year, see, para 536.
[154] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 539.
[155] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 543.
[156] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 545. In addition, social behavioural data could be collected from Facebook or LinkedIn, see, para 547; browsing data from Google, cookies or Apple iPhone.
[157] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 557.

could not possibly foreclose competition in the respective markets for mobile data analytics, market research and marketing information services.[158]

On a positive note, in *IMS Health/Cegedim Business*, IMS provides pharmaceutical companies with sales data on the basis of a predefined geographical segmentation without any identification of sales to individual pharmacies or customers, as is required by data protection law.[159]

V. The Corporatist Model of Data Control – Where Terms and Conditions of Privacy are Imposed on Consumers: Is Huge Accumulation of Data a 'Road to Serfdom'?[160]

In recent years, privacy has been the focus of the United Nations' Special Rapporteur on the right to privacy, who noted that:

'There are strong indicators that Privacy has become an important commercial consideration with some major vendors adopting it as a selling point. If there is a market for privacy, market forces will provide for that market'. [161]

Corporations do not need to accumulate a vast amount of data to make online platforms work. Although everyone accepts it, the objective necessity justification for the accumulation of data is implausible. It can be argued, for example, that Google's maps app cannot work if location tracking is disabled; however, many other services do not need to use tracking technologies other than for their own commercial interests. In the vast majority of cases, corporations allow the disclosure of data in order for them to respond to legal proceedings. But there is no objective justification for exploiting behavioural data for the targeted advertising of users in exchange for a monetary consideration from advertisers or publishers.

Who, then, dictates the corporatist model of data control?[162] Users have no other realistic choice but to agree to exploitative terms and conditions of privacy where data is the new currency. Beyond corporations, whose sole interest is boosting corporate profits from advertising, the

[158] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 558. The same conclusion is subsequently found in the market for advertising services, see, para 579.
[159] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, para 20.
[160] Generally, on the paradigmatic shift from capitalism to socialism and totalitarianism, see, FA von Hayek, *The Road to Serfdom* (London, Routledge, 2001), originally published in 1944.
[161] See, e.g., Report of the Special Rapporteur on the right to privacy, Joseph A. Cannataci, United Nations' Human Rights Council, doc. no. A/HRC/31/64 of 8 March 2016.
[162] A first answer is that states can and do engage in massive surveillance, see, e.g., Judge M Bohlander, 'The Global Panopticon: Mass Surveillance and Data Privacy Intrusion as a Crime against Humanity', in M Böse, M Bohlander, A Klip and O Lagodny (eds) *Justice Without Borders: Essays in Honour of Wolfgang Schomburg* (Leiden, Boston, Brill Nijhoff, 2018), p. 84. A second answer is that individuals can also influence the model by rejecting a lower privacy standard, which is, after all, a subjective preference. For the view that both quality and privacy are subjective preferences, see, e.g., K Waehrer and B White, 'Online services and the analysis of competitive merger effects in privacy protections and other quality dimensions', (2016), available on SSRN.

state, too, has an interest in having such corporations disclose relevant data for legitimate legal proceedings. Thus, creating a disclosure mechanism of data puts a strain on the balance of legitimacy between proper functioning or service maintenance and judicial or administrative expectations.

The state ultimately empowers corporations by enacting insufficiently robust legislation without proper coordination with other areas that might be affected by the accumulation of data. So the initial question in the title might not have an easy answer. It is clear that there is a tyranny of the corporatist model based on data; however, the role of the state in nurturing the supremacy of data accumulation over the fundamental value of privacy is dubious at its best. By contrast, competition authorities have proceeded cautiously. In the assessment of privacy, care has been taken not to upset the balance of power and to overstep the traditional role of the competition authorities. The latter had not dealt with privacy before. At a first glance, privacy is an exotic fruit grown in the field of mergers. In reality, the terms and conditions of privacy are a mere sub-division of a standard form agreement offered by online platforms to their users.

To get back to basics, transactional contract theory is applicable in the sense that privacy terms and conditions might be unfairly imposed on users. Under the myriad of contract theories based on will, reliance, fairness, efficiency and good value, the consent theory of contract has replaced the traditional ones.[163] Although the requirement of consent also implies transactional costs, the consent theory was better able to capture what the doctrine of consideration was unable to due to the lack of monetary consideration. A showing of consent is, therefore, prima facie sufficient to make an online platform's user agreement legally enforceable. Furthermore, the consent theory recognises the need to enforce gratuitous commitments and, in this respect, the consent theory has sorted out the issue of the lack of monetary consideration of the many online services offered free-of-charge. The perils of the consent theory, as it is applicable to the context of online platforms, is that it protects a promisee's reliance, i.e., online platform, on a promisor's consent, i.e., online users, even in those instances where, for example, online users did not subjectively intend to be bound, e.g., for the lack of any reading or comprehension of privacy terms and conditions.[164]

[163] For an excellent narrative of the above contract theories, see, e.g., RE Barnett, 'A Consent Theory of Contract', (1986) *Colombia Law Review*, 269-320, including (i) will theory dependent on the will of the parties, with moral implications and subjective intent; (ii) reliance on promises based on the intuition that we ought to be contractually liable; (iii) efficiency theory based on the maximisation of wealth; (iv) fairness theories based on substantive or procedural fairness; (v) bargain theory and, finally, (vi) consent theory.
[164] For the consent theory, see Barnett, 'A Consent Theory of Contract' (1986) *Colombia Law Review*, 320.

All in all, it has been shown above that the modern transactional theory of contract based on consent, although pragmatically helpful in many respects, as with many other theories applied in practice, is still a theory that is unable to resolve all problems. Put briefly, it is a theory that fails lamentably in practice.

In *Facebook/WhatsApp*, there is also a welcome recognition of a number of important areas of improvement, in particular

'privacy and security, the importance of which varies from user to user but which are becoming increasingly valued, as shown by the introduction of consumer communications apps specifically addressing privacy and security issues'.[165]

Privacy concerns have largely been dismissed based on the division of competence between competition and data protection law. For example, in *Facebook/WhatsApp*, it was stated that

'Any privacy-related concerns flowing from the increased concentration of data within the control of Facebook as a result of the Transaction do not fall within the scope of the EU competition law rules but within the scope of the EU data protection rules'.[166]

A nearly identical statement was made in *Sanofi/Google/DMI JV*, specifically, that

'For the purposes of this decision, the Commission notes that any privacy-related concerns flowing from the use of data within the control of the Parties do not fall within the scope of the EU competition law rules but within the scope of the EU data protection rules'.[167]

Although sensible, at least one of the above statements was at odds with the fact that Facebook's privacy policy had expressly stated that in the case of a change in ownership or control, users are subject to data transfer.[168] However, in *Sanofi/Google/DMI JV*, the parties lacked the ability to lock-in patients by limiting or preventing the portability of their data.[169]

A similar approach was, more recently, used in *Microsoft/LinkedIn*, specifically, that 'the merger does not raise competition concerns resulting from the possible post-merger combination of the

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[165] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 87.
[166] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 164. For the criticism that both the EU Commission and the US Federal Trade Commission have underestimated the 'true' value of data, see, e.g., A Ezrachi, *EU Competition Law: An Analytical Guide to the Leading Cases* (Oxford, Hart Publishing, Bloomsbury, 5th ed, 2016), p. 454.
[167] COMP/M. 7813, *Sanofi/Google/DMI JV*, 23 February 2016, para 70.
[168] For Facebook's privacy policy, see https://www.facebook.com/about/privacy?ref=new_policy. Currently, unlike Google, Facebook does not display its archived privacy policies. Similar provisions in the event of a merger were adopted by Whisper, see, e.g., AD Chirita, 'The Rise of Big Data and the Loss of Privacy', in M Bakhoum, B Gallego Conde, MO Mackenordt and G Surblyte (eds) *Personal Data in Competition, Consumer Protection and IP Law – Towards a Holistic Approach?* (Berlin, Heidelberg, Springer, forthcoming 2018), p. 19.
[169] COMP/M. 7813, *Sanofi/Google/DMI JV*, 23 February 2016, para 69; this is due to the new data protection regime.

data', including more specifically, personal and behavioural data, and that 'any such data combination (…) could only be implemented by the merged entity to the extent it is allowed by applicable data protection law'.[170]

The merging parties had made it clear that they did not make data available to third-parties for the purpose of advertising subject to 'very limited exceptions'.[171]

In the early years of consideration of data-driven mergers in *Google/Double Click*, the decision simply paid attention to the legal framework, mentioning that it is 'without prejudice' to Directive 95/46/EC and Directive 2002/58/EC.[172] This conveyed an impression that there was no appetite for any review of data and privacy implications. It, nonetheless, highlighted the need for greater coordination between competition and data protection.

In *Microsoft/LinkedIn*, privacy considerations were effectively ignored with the justification that the merger

'does not raise competition concerns resulting from the possible post-merger combination of data (essentially consisting of personal information, such as information about an individual's job, career history and professional connections, and/or her or his email or other contacts, search behaviour etc. about the users of their services) held by each of the Parties in relation to online advertising'.[173]

The problem associated with this approach overlooking privacy is that the Commission too readily accepted that such a data combination is already compliant with data protection law. Instead, it examined horizontal effects since actual or potential competitors will need to collect 'even more data to compete effectively with the new entity'.[174] Both merging parties were believed not to compete against each other in advertising on the basis of data and not to make data available to third parties for advertising but for 'very limited exceptions'.[175]

Nonetheless, too much faith was placed in the General Data Protection Regulation (2016/679),[176] one year ahead of its entry into force. Indeed, the new regime might not be as effective in addressing the existing loopholes regarding data. In particular, the decision noted that the new

[170] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 176 and 177.
[171] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 180.
[172] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 368.
[173] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 176.
[174] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 179.
[175] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 180. Microsoft submitted that it did not hold 'a significant percentage of valuable data for advertising purposes'.
[176] See Regulation (EU) 2016/679 of the EU Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, OJ L 119/2016.

regulation could limit Microsoft's ability to have access to LinkedIn's full data and process personal data, 'thereby strengthening the existing rights and empowering individuals with more control over personal data'.[177] This remains rather wishful thinking since Microsoft's strategic move was simply the acquisition of 'more data'.

As has previously been noted with regard to the *Facebook/WhatsApp* merger, the data protection regulation is not empowered to block mergers and acquisitions. Competition authorities are therefore best placed to consider the implications of a large accumulation of data and to review unfair terms and conditions of privacy. Furthermore, the dismissal of privacy considerations on grounds based largely on the classical divide between competition and data protection is unhelpful in instrumenting the case against behavioural price discrimination, which is something that privacy cannot deal with. As one commentator explained, first-degree price discrimination is one manifestation of the significant privacy and autonomy risks, 'But privacy may not be the right tool to address the problem'.[178]

Finally, regarding the new data protection regime and the question of whether it is, indeed, offering better protection against data breaches, the answer is that one can only hope so. Again, it is rather wishful thinking that we expect data protection authorities to take action against the exploitation of aggregated and anonymised behavioural data that could negatively affect the economic interests of consumers. Recital 75 of the new Data Protection Regulation 679/2016 refers to discrimination and to any other significant economic disadvantage, to personal economic situation, personal preferences or interests, behaviour, location or movements, all of which depict the landscape of data analytics analysed above in the context of mergers. Article 3 (1) of the Directive 680/2016 recognises name, identification number, location, online identifier and economic identity as personal data. In other words, the legal framework recognises individual rights to an online personal identity; thus, in the wake of the market studies and research involving aggregated personal identities, the enforcement of individual rights to an online personal identity relies on the legal tests foreseen by the data protection law. It will, however, be argued that the enforcement of individual rights to online economic identity, envisioning the economic rights referred to above, could solely be enforced by competition authorities. We cannot, and should not, accept that data and privacy experts deal with cases of online price discrimination.

[177] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 178 and 368 respectively.
[178] See, e.g., CJ Hoofnagle, Federal Trade Commission Privacy Law and Policy, chapter 6 on 'Online privacy' (Cambridge, Cambridge University Press, 2016), p. 147. Hoofnagle also refers to another paradox, namely, the inconsistency between consumer desires for more privacy and their actual behaviour of exposing an excessive wealth of personal information on social platforms.

VI. Towards a Workable Theory of Harm?

Several attempts have already been made to address the nefarious effects of the accumulation of data by advancing theories of harm to consumers. None of these so-called 'theories' was ultimately a workable theory that could be applicable to all data-driven mergers in recent practice. This sub-section will map the most relevant theories of harm and, based on their criticism, offer a workable theory of harm.

(i) Consumer Harm Due to Degradation of Quality and Targeted Advertising

Both *Facebook/WhatsApp* and *Yahoo/Search* offer a different kind of theory of harm, which is discussed as a 'theoretical' possibility, leading to a bifurcated analysis of 'targeted advertising' and 'degradation', i.e., diminution, of quality.[179] The catalyst for this bifurcated theory is the consumer-protection function inherent in competition law,[180] as the primary focus of consumer law is on advertising and quality. In recent years, most notably after the enactment of the Guidance Paper on the prioritisation of cases under Article 102 TFEU, there has been an extension of the consumer-protection function with a further welcome focus on consumer choice and implications for innovation. As the areas of abuse of dominance and mergers are intertwined, this extension of enforcement is helpful and pragmatic. More specifically, the legal test applicable to mergers is focused on the 'creation or strengthening' of a dominant position following the merger. Disregarding such consumer considerations could therefore lead to an enforcement gap;[181] consumer law is not equipped to deal either with monopolistic power or with mergers.

In the first scenario in *Facebook/WhatsApp*, the Commission examined the theoretical possibility of introducing targeted advertising following a change in WhatsApp's privacy policy and data collection for the same purpose of targeted advertising.[182] These scenarios were dismissed due to

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[179] COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014; COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010.

[180] See, e.g., R Whish and D Bailey, *Competition Law* (Oxford, Oxford University Press, 8th ed, 2015), p. 20, favouring a consumer-protection function applicable, more generally, to competition law; in the area of mergers, see, the reference to the reduction of quality in the Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of mergers between undertakings, OJ [2004] C 31/5, para 36 on decreasing quality; para 65 on deteriorating quality; and specifically for the prohibition of abuse of a dominant position, see, e.g., AD Chirita, 'Undistorted, (Un)fair Competition, Consumer Welfare and the Interpretation of Article 102 TFEU', (2010) World Competition Law and Economics Review 3 (33), p. 417-436. In the context of free goods, as more emphasis has to be placed on quality, rather than on price, this could therefore enforce a consumer-protection function of competition law, see, e.g., M Gal and D Rubinfeld, 'The Hidden Costs of Free Goods: Implications for Antitrust Enforcement', (2016) Antitrust Law Journal (80) 3, 542.

[181] In the same vein, see, e.g., M Gal and D Rubinfeld, 'The Hidden Costs of Free Goods: Implications for Antitrust Enforcement', (2016) Antitrust Law Journal (80) 3, 546, at footnote 143 on Facebook's privacy cases, highlighting that, due to the absence of monetary consideration, some courts decided that consumer law does not apply.

[182] See COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, paras 173 and 185 and para 180 respectively.

the possibility of switching from Facebook and WhatsApp to other services and the existence of alternative providers of data for the purpose of advertising, e.g., Apple, Amazon, eBay, Microsoft, AOL, Twitter, Yahoo!, IAC, LinkedIn, Adobe and Yelp.[183]

In the second scenario, in *Yahoo/Search*, the Commission examined the theoretical possibility of degradation of the organic search due to the trade off from paid results. This possibility was easily dismissed because 'when a platform tries to attract more users through greater relevance on the organic search it runs the risk of losing revenues on the advertising side'.[184] As adCenter and Bing will process more traffic, more data will then be available for experimentation which, in turn, will also 'tend to increase' the quality of the new product through better ad matching and higher conversion rates of sale. It was firmly believed that the new platform would eventually become an effective competitor of Google.[185] In *Google/Double Click*, there was also consideration of the same possibility of the degradation of Double Click tool's quality, including bundling Double Click with Google's intermediation services.[186]

In *Publicis/Omnicom*, the Commission also examined whether big data may facilitate online targeted advertising and become crucial to conducting a business and to attracting new advertisers.[187] By contrast, in *TomTom/TeleAtlas*, the Commission found that the merged entity was most likely to have the ability to increase prices, degrade quality or delay access for some manufacturers and navigation software providers of digital maps.[188] However, confidentiality concerns were considered similar to product degradation in that the perceived value of the navigable digital map for manufacturers would be lower if the latter feared that confidential information would be shared with TomTom.[189] These concerns were later dismissed due to the limited amount of information of competitive value exchanged between Tele Atlas and its customers.[190]

Given the dismissal of the above counterfactual scenarios, one could extract as a preliminary conclusion that the consumer harm caused in these cases by an accumulation of data was not taken too seriously. The most plausible explanation is that both the degradation of quality and targeted advertising are primarily the mission of consumer laws. In contrast, the mission of competition law in the area of mergers is to balance the existence of conglomerate effects. Both

[183] COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, para 188.
[184] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 204.
[185] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, para 192.
[186] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 289.
[187] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 625.
[188] COMP/M.4854, *TomTom/TeleAtlas*, 14 May 2008, para 210.
[189] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 274.
[190] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 276.

Microsoft/Yahoo Search and *Microsoft/Skype* evaluated these effects but, nonetheless, dismissed them.[191]

(ii) Consumer Harm Due to Horizontal Effects

In *Microsoft/Skype*, consideration was given to the horizontal effects on consumer communications including instant messaging, voice and video calls on PCs having Microsoft's Windows operating system, and on enterprise communications.[192] None of these effects were considered to be significant. In *Facebook/WhatsApp*, the horizontal effects were dismissed since only Facebook is active in the provision of online advertising services.[193] In *Telefonica/Vodafone/Everything Everywhere/JV*, the Commission examined whether the merger could give rise to horizontal effects, but concluded that JV could face competition from a number of market participants, including Google and Apple.[194] Given the low market shares and the presence of several strong competitors, no horizontal effects were identifiable in *IMS Health/Cegedim Business* with regard to intelligent business solutions; nonetheless, such effects were identified with regard to the provision of syndicated primary market research.[195]

(iii) Consumer Harm Due to Conglomerate Effects through Tying or Bundling

In *Microsoft/Yahoo Search*, it was found that the existence of conglomerate effects may increase Microsoft's ability to leverage its market power in areas other than online advertising including notably its PC operating systems and personal productivity apps.[196] In particular, Microsoft could negotiate distribution agreements with manufacturers for the default making of its search technology. The consumer harm inflicted through such bundling was rather surprisingly considered 'unlikely to be significant'.[197] In *Microsoft/Skype*, similar conglomerate effects were identified due to Microsoft's dominant position in the market for Windows operating systems, the Internet Explorer browser and Office apps software.[198] In particular, Microsoft could degrade the interoperability of Skype with competing operating systems and platforms and instead interoperate solely with Microsoft's Lync app.[199] Furthermore, Microsoft could technologically

[191] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, paras 244; COMP M. 6281, *Microsoft/Skype*, 7 October 2011, paras 158 and 214.
[192] COMP M. 6281, *Microsoft/Skype*, 7 October 2011; on appeal, see *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635.
[193] COMP/M.7217, *Facebook/WhatsApp*, 3 October 2014, para 165.
[194] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 523 to 528.
[195] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, paras 166 and 189 respectively.
[196] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, paras 243.
[197] COMP M. 5727, *Microsoft/Yahoo! Search*, 18 February 2010, paras 244.
[198] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, para 133.
[199] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, paras 135 and 213.

integrate Skype and Windows as a 'must-have' product or engage in commercial bundling of Skype with Microsoft's Windows operating system or Office app.[200] On appeal, the Commission was criticised for not having considered such conglomerate effects, in particular 'the ability of and the incentives for the new entity to use its position on the consumer communications market as leverage to distort competition on the enterprise communications market'.[201] However, the General Court found that the theory of harm based on conglomerate effects was 'complex and abstract' based on a generic assumption that 'concentrations giving rise to conglomerates do not usually generate competition concerns'.[202] Conglomerate effects were also dismissed in *Publicis/Omnicom* because the parties would not have the ability or incentive to leverage a position on one market to another by means of tying or bundling or other exclusionary practices.[203] In *Telefonica/Vodafone/Everything Everywhere/JV*, the Commission considered any conglomerate effects stemming from the combination of products in related markets which may facilitate the ability and incentive of the merging parties to leverage a strong market position from one market to another through tying or bundling; thus, no concerns were identified.[204]

In *Sanofi/Google/DMI JV*, the Commission also looked at the potential for conglomerate effects.[205] It examined the ability to foreclose rivals through tying, bundling or limiting the interoperability with competing providers.[206] The Commission found that neither JV, nor the parties had a market position which could be leveraged to exclude third-party device manufacturers, insulin providers or providers of digital services for the management and treatment of diabetes. The parties also lack such an incentive; otherwise, by preventing third-parties' insulins and devices from working, JV would drive patients away.[207] No conglomerate effects were found in *IMS Health/Cegedim Business*.[208]

(iv) Consumer Harm due to Exclusionary Effects of Data Combination

In *Facebook/WhatsApp* and *Google/Double Click*, the overarching theory of consumer harm is based on the exclusionary effects of data combination. Again, the existing concerns were too

[200] COMP M. 6281, *Microsoft/Skype*, 7 October 2011, paras 137 and 138.
[201] *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635, para 107.
[202] *Cisco Systems Inc and Messagenet SpA v Commission*, Case T-79/12, ECLI:EU:T:2013:635, para 112; subsequently, the Court rejected the theory of harm based on conglomerate effects as purely speculative, at para 121.
[203] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 673. However, one competitor submitted to the market investigation that the merged entity will be able to leverage its market power in price negotiations with media vendors, which will lead to higher barriers to market entry, see, para 679; this was counterbalanced by the broad choice of alternative agencies and the buyer power of media vendors.
[204] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 518-522.
[205] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, para 85; thus, this was not the case.
[206] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, para 84.
[207] COMP/M. 7813, *Sanofi/Google/DMI JV,* 23 February 2016, para 84.
[208] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, para 275.

easily dismissed, often with not too plausible explanations. For example, in *Facebook/WhatsApp*, it was simply mentioned that 'there will continue to be a large amount of Internet user data that are valuable for advertising purposes and that are not within Facebook's exclusive control' and that 'there are currently a significant number of market participants that collect user data alongside Facebook'.[209] Although this was an easy way of dismissing any exclusionary effects on competing rivals, this statement did not helpfully consider how the data combination could subsequently exploit consumers. A similar approach to foreclosure effects was applied to *Google/Double Click*. It highlighted that the data collected by Double Click was 'relatively narrow in scope' and that 'other companies active in online advertising have the ability to collect large amounts of more or less similar information that is potentially useful for' targeted advertising, e.g., Yahoo!'s Blue Lithium collection of behavioural data.[210] All in all, neither the merged entity, nor Double Click alone could access 'unique, non-replicable data'.[211] Indeed, the merged entity would need to renegotiate contractual terms.[212] This was the theory of harm underpinning the combination of data. Although targeted advertising was a cause for concern, the available technology to implement it was still at an early stage:

'the type of behavioural targeting that lies at the core of these network effects is an emerging technology which neither Double Click nor Google have developed vis-à-vis Yahoo!, Blue Lithium or AOL's Tacoda'.[213]

Publicis/Omnicom underwent a similar assessment where it was noted that the large majority of competing rivals are 'at least similarly placed to the merged entity to get access to big data analytics'.[214] Again, the focus was exclusionary, which examined whether competing advertising agencies would continue to have access following the merger. Competitors offered mixed responses: some were still relying on the offline world, whilst others noted the increasing importance of big data.[215] They confirmed, however, that there would be access to a large number of third-party providers of big data analytics and that some of them had already developed their own data analytics tools.[216] But none of the rival media owners believed

[209] See COMP/M. 7217, *Facebook/WhatsApp*, 3 October 2014, paras 189 and 188 respectively.
[210] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, paras 269 and 270.
[211] One could add here the explanation that data is 'non-rivalrous' in the sense that its collection cannot prevent others from collecting identical data, see, e.g., D Rubinfeld & M Gal, 'Access Barriers to Big Data', (2017) Arizona Law Review 59, 339, p. 369.
[212] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 303.
[213] COMP M. 4731, *Google/DoubleClick*, 11 March 2008, para 303.
[214] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 628.
[215] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 626.
[216] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 627. See also para 628, where one competitor emphasized that third-party providers of data such as Twitter, Facebook, Google and blogs offer aggregated data free of charge or for a fee.

Publicis/Omnicom to be 'better placed than its competitors post-merger to get access to big data analytics'.[217] Even if the merged entity were to block access to Publicis/Omnicom's own data analytics platform, the impact would still be rather limited, as 'many other providers are developing big data platforms, or will be able to access similar data and not be disadvantaged'.[218] Based on this survey, the Commission concluded that there are no serious doubts with regard to big data since a sufficient number of alternative providers of big data analytics will still be available.[219] However, a number of manufacturers of portable navigable devices were concerned that the merged entity would increase map database prices, offer lower quality or delay the availability of new features and updates.[220]

By contrast, in *TomTom/Tele Atlas*, the Commission arrived at the conclusion that, although the merged entity had the ability to foreclose, it would simply lack any incentive to do so.[221] Any price increase in the downstream market would not be profitable for the merged entity. More important, however, was that the merged entity would gain access to commercially sensitive information regarding the downstream activity of rivals.[222] This would allow it to compete less aggressively or make entry and expansion less attractive for competitors. Due to vertical integration, confidential information could be shared with TomTom.[223] In this respect, the Commission considered it unlikely that such confidentiality issues could lead to a significant impediment to effective competition in the market for navigable digital map databases and that the merged entity would still have the incentive to protect its customers' confidential information.[224]

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[217] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 628.
[218] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 629; a small minority of respondents noted, however, that the impact on them will be negative.
[219] COMP M. 7023, *Publicis/Omnicom*, 9 January 2014, para 630. See, para 660, where the Commission arrives at the conclusion that it is 'unlikely that the merged entity will have the ability and the incentive to restrict the access to the advertising space to competitors of the merged entity's media buying agencies or to discriminate against these competitors'. Furthermore, the sale of advertising space in cinema is not an important product for the downstream market, see para 665; hence, any input foreclosure will not be profitable, see, paras 664 and 669.
[220] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 190. Elsewhere, see, para 198, the merging parties argued that quality degradation or delayed release of updates would be impossible because Tele Atlas offers only one core digital navigable map database for any given geographical area. Furthermore, quality degradation would be technically difficult, see, para 199.
[221] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 230. Earlier, see, para 210, it was, however, acknowledged that the merged entity is likely to have the ability to increase prices or degrade quality or delay access for some manufacturers and navigation software providers competing with TomTom; thus, quality degradation would be unprofitable, see, para 220.
[222] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 252, with further reference to para 78 of the Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ C 265/07 [2008].
[223] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, para 253.
[224] COMP/M.4854, *TomTom/Tele Atlas*, 14 May 2008, paras 254 and 255 respectively.

In *Telefonica/Vodafone/Everything Everywhere/JV*, the Commission considered the likelihood of a strategy to technically or commercially foreclose access to essential inputs for the provision of mobile wallet products offered to final consumers.[225] This was found not to be the case, as there are a considerable number of alternative banks.[226] In reaching its view, the Commission subsequently noted that the market concerned is a 'nascent and evolving' one and that there will be additional competition coming from future new technologies based on software, cloud-based SEs, micro-SD, NFC stickers and sleeves.[227] It questioned whether the merging parties would indeed have the technical ability to substantially foreclose access to SIM-based SEs to competing mobile wallet providers, including the ability to degrade competing mobile wallets functioning with an alternative SE.[228] Due to the availability of dual architecture smartphones, competitors could offer their products using embedded SEs, including stickers for maximising consumer reach.[229] Relying on Ofcom's technical expertise, the Commission examined whether the merging parties had a technical ability to foreclose competing mobile wallet providers, including preventing the downloading of a competing mobile wallet app without blocking access to the entire app store.[230] Following an in-depth technical analysis, it was felt that the blocking of the entire traffic from a given IP address 'would not make economic sense' for the merging parties and would be detected by consumers.[231] It was therefore concluded that the parties would have no ability either to technically block or to degrade a competing mobile wallet app from being downloaded, installed or updated on a handset operating on the network of the parties, including the automatic setting of preferences to SIM-based SE or further delisting of mobile datasets capable of supporting rival mobile wallets.[232]

In *Sanofi/Google/DMI JV*, with regard to data analytics services in the field of healthcare, the Commission did not identify any risk of market foreclosure; there were alternative providers, including one competitor offering data analytics tools in-house.[233] In *IMS Health/Cegedim Business*, the Commission found that IMS does not have the ability or the incentive to successfully

[225] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 248.
[226] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 249.
[227] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 259.
[228] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 263.
[229] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, para 268.
[230] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 294, 295 to 306.
[231] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 307 and 308. For adverse consumer reactions, see, para 435.
[232] COMP/M. 6314, *Telefonica UK/Vodafone UK/Everything Everywhere/JV*, 4 September 2012, paras 307, 313 and 347 respectively. The same is valid even after the installation of an embedded SE, see, para 322; see subsequently, paras 450 and 491.
[233] COMP/M. 7813, *Sanofi/Google/DMI JV*, 23 February 2016, paras 72 and 76.

foreclose access to experience and clinical trials data.[234] A majority of competitors submitted to the Commission that it was difficult to collect such data from multiple sources, which also involves a considerable cost.[235] Thus, the transaction did not raise vertical effects.[236] There are alternative suppliers of healthcare professional databases, including aPureBase and Veeva.[237] The Commission identified vertical foreclosure effects with regard to healthcare professional databases and sales tracking data. It reached the conclusion that IMS will effectively have the ability to foreclose access to its brick structure to competing providers of such databases or make access more onerous for customers.[238] IMS will be the owner of a stronger offer in the customer interaction software.

In *Microsoft/LinkedIn*, the Commission tipped the balance in favour of pro-competitive benefits following two counter-factual merger scenarios, specifically, assuming that LinkedIn had no incentive to monetise its data on a stand-alone basis and that Microsoft would have access to LinkedIn's data and use it to improve its software solutions. Then, the merger may have pro-competitive effects, i.e., new products or improvements to existing ones to the benefit of consumers 'based on a dataset to which otherwise no one would have access'.[239] The Commission's optimism was fuelled by uncertainty over whether LinkedIn's Sales Navigator could become an important input.[240] Therefore, no foreclosure of competing providers of alternative software solutions was foreseeable.[241] As Intel explained, although LinkedIn's data is 'very useful', it is not the only source of data. There are many other sources available of 'unstructured information about commercial markets and cognitive solutions'.[242] The majority of competing intelligent solutions providers submitted that the impact on effective competition of the proposed merger would be negative.[243] In contrast, the Commission considered it unlikely that

[234] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, paras 211 and 213.
[235] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, para 214.
[236] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, para 217.
[237] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, para 229.
[238] COMP/M. 7337, *IMS Health/Cegedim Business*, 19 December 2014, paras 242, 244, 254 and 257.
[239] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 249. In the absence of the present merger scenario, LinkedIn did not plan licensing its data to any third-parties, see, para 376.
[240] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 250. LinkedIn Sales Navigator's competitors and half of its customers submitted that LinkedIn's solution is, or will become, an important input, see, para 257. In contrast, the Commission suggested that all major vendors have already started offering advance functionalities, including SalesForce, Zoho and E-Deal.
[241] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 253 and 267. Due to LinkedIn's insignificant market share, the merged entity would not have the ability to foreclose competing providers of software solutions, see, para 373.
[242] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 263.
[243] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 273.

the overall impact would be negative and unlikely to lead to consumer harm.[244] Even if Microsoft were to use LinkedIn's data, this is unlikely to affect a significant number of Microsoft's competitors through a significant price increase or a reduction in the incentives to innovate.[245] The underpinning philosophy of this final assessment is recognition that, although 'data is a relevant input', it is not an 'essential' one.[246]

Referring to the *Microsoft/LinkedIn* merger where the quest was 'whether bringing the companies' data together would make it too hard for others to compete', the Commissioner for Competition suggested that 'controlling a large amount of data shouldn't become a way to shut rivals out of the market'.[247] However, 'this wasn't an issue (…) as other companies still had access to plenty of data'.

On the basis of all the above merger decisions, a preliminary conclusion would suggest that the exclusionary focus based on the question of whether rivals have access to even more data is unhelpful if it does not address the harm caused to consumers through the exploitative use of data. It is furthermore submitted that an exclusive reliance on the market foreclosure test is not in the spirit of consumer and data protection laws.

VII. Merger Control in the Public Interest: Are Privacy Considerations Taken Seriously in Data-Driven Mergers?

One could come to regret after having accepted the terms and conditions of privacy imposed by various online platforms, including software companies, not because one could not be bothered to read them, but because one did not have the time. However, many people, who might have taken the time to read them, may have not properly understood all the privacy implications.

After having read and reviewed the most relevant data-driven mergers, one could say that significant resources have been spent on understanding and explaining the intricacies of data analytics and the potential harm to consumers through the prism of the traditional economic analysis of horizontal, vertical and conglomerate effects. In 2008, it was not very clear whether competition authorities were well-equipped to deal with data; after 2016, it become clear that the learning curve has made it possible to examine data analytics in more depth than before. One could, nonetheless, argue that privacy considerations of an economic nature could be taken into account even more seriously than before. The assessment of mergers has been based more on

[244] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, paras 274 and 275 respectively as well as para 380. The majority of the respondents expected the effects of this merger to be neutral; see, para 378.
[245] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 275.
[246] COMP M. 8124, *Microsoft/LinkedIn*, 20 January 2017, para 276.
[247] See EU Commission, Commissioner for Competition, M Vestager, Speech: Clearing the path for innovation, Lisbon, 7 November 2017, p.4.

economic considerations rather than on any legal interpretation. It could, otherwise, be argued that the analysis of the expected merger-specific efficiencies brought about by the proposed merger could be endangered by unwanted political attention and hidden considerations. However, economics can no longer ignore a wider social context that requires a careful balancing of privacy considerations which bear economic weight.

One commentator has already rejected the consideration of privacy as being in breach of the EU Merger Regulation.[248] Based on a literal interpretation of the Regulation, privacy consideration might not be a good fit. However, there are wider public policy considerations than a narrower focus on privacy. The legal instrument is Article 21 (4) of the EU Merger Control Regulation 139/2004, which allows Member States to 'take appropriate measures to protect legitimate interests other than those taken into consideration by this Regulation and compatible with the general principles and other provisions of Community law'.

Under the Merger Control Regulation, the protection of privacy could be seen to fall under the remit of other 'legitimate interests', being a concrete matter of public interest. One potential obstacle against this projection is the wording of the second sentence of Article 21 (4), which, under the concept of a 'recognised public interest', includes more specifically 'public security, plurality of the media and prudential rules'. This shortcoming could easily be overcome by reliance on the last paragraph of Article 21 (4), which mandates that 'any other public interest' be communicated to the Commission for an evaluation on a case-by-case basis,[249] and so it could successfully include privacy considerations as a sub-type of terms and conditions of use for online platforms. Although 'other legitimate public interest' grounds have, only very rarely, been invoked,[250] high-tech could be recognised as a strategic sector, as certain corporations have become influential tools of the unprecedented mass surveillance of individuals. On balance, there is a greater public interest in cushioning individuals against the pervasive powers of self-interested multinational corporations.

The blocking of a merger on grounds of public interest remains a solution of last resort; it would attract unwanted criticism for being based on politics, rather than on economic considerations.[251]

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[248] See, e.g., B Holles de Peyer, 'EU Merger Control and Big Data', (2017) Journal of Competition Law & Economics (4) 13, p. 767 and ff.

[249] On the distinction between recognised and non-recognised interests, see, e.g., C Bengtsson, JM Carpi Badia and M Kadar, 'Mergers' in J Faull and A Nikpay (eds) *The EU Law of Competition* (Oxford, Oxford University Press, 3rd ed., 2014) p. 607, paras 5.283 and 5.284.

[250] For this view, see, e.g., Bellamy & Child, *European Union Law of Competition* V Rose and D Bailey (eds) (Oxford, Oxford University Press, 7th ed, 2013) p. 568 and 569, para 8.104

[251] For a number of politically controversial merger decisions, see, O Koch, 'Fundamentals of European Merger Control' in G Hirsch, F Montag and FJ Säcker (eds) *Competition Law: European Community Practice*

It is, however, obvious that the motives for the market study of data analysis are for profit-seeking. As has already been recognised elsewhere, merger decisions are often economic and/or political decisions.[252] In the merger enforcement of the last decade, one could see this from the alternative perspective: merger decisions are in essence economic decisions, and only exceptionally based on legal interpretation. Ultimately, the politics of privacy will triumph, hopefully for those people who take the time to read privacy policies but have no choice but to leave an online platform.

VIII. Conclusion

From the *Google/Double Click* merger in 2008 up to *Microsoft/LinkedIn* in 2016, the assessment of data and privacy considerations in mergers slightly improved and hopefully will continue to do so. Overall, the acquisition of large data sets has represented an intelligent and strategic move towards harvesting even more useful data. The focus has been on the exclusionary likelihood of competition on the basis of data rather than on the exploitative likelihood and actual harm caused to consumers following the use of data.

One enforcement weakness has been the unconditional approval of several data-driven mergers. Another enforcement weakness has been the belief that data and consumer protection laws are capable of calibrating the imbalance caused by aggressive competition on the basis of data. Nowadays, data has been recognised as a competitive indicator of performance. In transactional theory, the performance indicator has traditionally been the price or the monetary consideration. In online platforms, exchanges have therefore substituted the price with data. However, users of online platforms possess weaker bargaining power; they have no choice but to consent to default terms and conditions and give in to notices of privacy changes. These developments are nefarious and should have been approached differently by the competition authorities.

First, reliance on consumer law is a fallacy, as, although the latter deals with misleading and comparative advertising, competition law could also activate its consumer-protection function to address targeted advertising and the degradation of quality in the context of online platforms.

Second, reliance on data protection is another fallacy, as the former cannot block mergers or acquisitions. Furthermore, a data protection compliance checklist may confirm that online platforms indeed attempt to be fully compliant with data protection, e.g., (i) platform users have freely given their consent, even if they had decided not to read lengthy privacy conditions or a platform's terms of use; and (ii) their aggregated data was anonymised and then shared or

and Procedure (London, Sweet & Maxwell, 2008), p. 1918-1919, paras 5-1-073 to 5-1-077, and footnotes 210 to 213.

[252] F. Rittner and M. Kulka, *Wettbewerbs- und Kartellrecht* (Heidelberg 2008), 381.

transferred. Third, reliance on the market-foreclosure test as a panacea for competition based on data with a comprehensive but conservative evaluation of access to data and barriers to market entry, often serves mostly competing rivals who need access to the data in question. Without an extension of the test of foreclosure to the analysis of consumer harm from exploitation, there is a risk of under-enforcement.

The vast majority of data-driven mergers have given rise to horizontal effects, e.g., *Google/Double Click*, *Facebook/WhatsApp*, *Microsoft/Yahoo! Search*, *Microsoft/Skype*, *Publicis/Omnicom*, *Cisco & Messagenet*, rather than vertical effects, e.g., *TomTom/Tele Atlas*. Based on the horizontal and vertical dichotomy, only a tiny minority, e.g., *Microsoft/Skype* and *Cisco & Messagenet,* have given rise to conglomerate effects. Nurturing conglomerates in the long run is therefore no longer remotely possible. Too much faith in ephemeral high market shares and a reduction in innovation is also dangerous. In the end, conglomerates become largely bureaucratic, i.e., inefficient, which can only inhibit entrepreneurship and innovation.

How could these concerns be addressed? There is a clear need for better coordination of the enforcement efforts with regard to digital platforms. Institutional cooperation may also help better inform about the wider scope of competition, consumer and data protection laws. It could address enforcement gaps and empower one authority for areas that cannot be dealt with by the others, especially when dealing with monopolies or mergers. Ultimately, existing tests have to be adapted to the requirements and particularities of digital markets.

No doubt, some of the competition concerns have already been addressed through specific remedies. Some remedies have inter alia ensured that manufacturers or distributors of PCs do not pre-install LinkedIn on the Windows operating system, that LinkedIn can be removed if pre-installed, and that the interoperability of competing service providers with Windows' office apps is duly maintained.