



WORKING PAPERS

LAW 2018/13
Department of Law

How to measure privacy-related consumer harm
in merger analysis?

A critical reassessment of the EU Commission's
merger control in data-driven markets

Elias Deutscher

European University Institute
Department of Law

**HOW TO MEASURE PRIVACY-RELATED CONSUMER HARM IN
MERGER ANALYSIS? A CRITICAL REASSESSMENT OF THE EU
COMMISSION'S MERGER CONTROL IN DATA-DRIVEN MARKETS**

Elias Deutscher

EUI Working Paper LAW 2018/13

This text may be downloaded for personal research purposes only. Any additional reproduction for other purposes, whether in hard copy or electronically, requires the consent of the author. If cited or quoted, reference should be made to the full name of the author, the title, the working paper or other series, the year, and the publisher.

ISSN 1725-6739

© Elias Deutscher, 2018
Printed in Italy
European University Institute
Badia Fiesolana
I-50014 San Domenico di Fiesole (FI)
Italy
www.eui.eu
cadmus.eui.eu

Abstract

This study contributes to the current debate on how privacy concerns can and should be integrated into merger analysis. First, I contend that while competition authorities increasingly account for the role of personal data as a source of market power and entry barriers, privacy-related consumer harm still remains a blind spot in merger analysis. Second, I discuss how this analytical gap can be filled by mapping out three potential theories of privacy-related consumer harm: namely, privacy as an element of product quality, privacy as a feature of consumer choice, and privacy as non-monetary price. Third, and this is my major claim and contribution, this study proposes willingness-to-pay studies in the form of conjoint analysis as a methodology that enables competition authorities to quantify privacy-related consumer harm in monetary terms. In a fourth section, this study discusses potential objections to this approach. In so doing, it shows that the widespread opposition against the incorporation of privacy into merger analysis is based on a 'privacy fallacy'. This 'privacy fallacy' derives from the erroneous assumption that deteriorations in the level of privacy protection as a consequence of a merger automatically amount to a breach of data-protection rules which should be addressed by data protection authorities, but which do not constitute an antitrust concern.

Keywords

Big data, competition law, privacy, merger control, conjoint analysis

Author contact details:

Elias Deutscher

Law Department

European University Institute

Florence, Italy

elias.deutscher@eui.eu

Table of contents

INTRODUCTION.....	1
I. THE ROLE OF PERSONAL DATA IN ANTITRUST ANALYSIS	2
I.1 The state of the art.....	3
I.2 The state of the enforcement practice	4
I.3 The Facebook/WhatsApp merger – a vanguard of competition law analysis in data-driven markets?	7
II. PRIVACY AS ANTITRUST CONCERN.....	9
II.1 Privacy-related theories of consumer harm	10
II.1.1 Privacy as an element of product quality	11
II.1.2 Privacy as an element of consumer choice.....	12
II.1.3 Privacy as a non-monetary price.....	13
II.2 Practical implications of the concept of privacy-price	14
II.2.1 Privacy-price as methodological tool for market definition	14
II.2.2 Privacy-price as an analytical basis for a theory of privacy-related consumer harm.....	16
III. HOW CAN COMPETITION AUTHORITIES MEASURE PRIVACY-PRICE INCREASES?	19
III.1 Qualitative methods	19
III.2 Conjoint analysis as quantitative method	20
IV. POTENTIAL OBJECTIONS	23
IV.1 Administrability and reliability.....	23
IV.2 Specific normative and methodological concerns about the application of conjoint analysis to privacy.....	25
CONCLUSION.....	28

I. Introduction

One day in August 2016, an identical message simultaneously popped up on the cell phone screens of millions of WhatsApp users. Notifying the users of a change in WhatsApp's privacy policy, it required them to opt out within 30 days of their personal data being shared with Facebook. Two years earlier, the FTC¹ and the EU Commission² had cleared the merger between Facebook and WhatsApp, despite the numerous concerns aired by privacy and consumer groups. Back then, the EU Commission had actually assessed the possibility of the merged entity combining Facebook's and WhatsApp's user data after the consummation of the merger. It had, however, concluded that the merged entity would lack the technological ability and incentives to merge the datasets of the two companies.³

Rather than the final word, the Commission's decision to clear the merger has been the starting point of the Facebook/WhatsApp saga. A few months after the change in its privacy policy, the Italian Competition Authority imposed a 3 million EUR fine on WhatsApp for having forced its users to share their personal data with Facebook.⁴ Likewise, the Commission seemed extremely unhappy about the unforeseen change in WhatsApp's privacy policy, and recently imposed a 110 Million EUR fine on Facebook for having provided incorrect information about the technical feasibility of the matching of both firms' datasets during the merger proceedings.⁵

Against this backdrop, one can perceive the Facebook/WhatsApp merger as a natural experiment; an experiment which shows that, less than two years after the clearance of the merger, the merged entity behaved in a fundamentally different way from what the Commission had forecast in its merger analysis. This unexpected outcome raises a number of questions: Did the EU Commission get its analysis of the Facebook/WhatsApp merger wrong? What can explain the EU Commission's failure to foresee the change in Facebook/WhatsApp privacy policy? And, more generally, what is the appropriate role of concerns about data and privacy in competition analysis?

This study aims to contribute to the current debate on the intersection between big data, privacy and antitrust by answering these questions in reverse order. First, I contend that, paradoxically, the academic debate on the role of personal data in antitrust lags behind the actual enforcement practice of EU and US competition authorities. Whereas there is an ongoing heated debate amongst antitrust commentators as to whether personal data should be considered in competition law enforcement, competition authorities on both sides of the Atlantic have already been assessing the competitive role of personal data for quite some time. The real question is therefore 'how', rather than 'whether', competition authorities should deal with personal data in their analysis (I). Second, based on a reassessment of the Commission's Facebook/WhatsApp decision, I posit that the fundamental problem with the current approach to data-driven mergers is that it largely ignores potential detrimental effects of the concentration of personal data on consumers. One important reason for this privacy blind spot of merger analysis is that the antitrust literature and competition authorities have so far omitted to articulate a clear

¹ The FTC cleared the merger, but required under its consumer protection competence both parties to honour their privacy policies post-merger Federal Trade Commission, 'Letter From Jessica L. Rich, Director of the Federal Trade Commission Bureau of Consumer Protection, to Erin Egan, Chief Privacy Officer, Facebook, and to Anne Hoge, General Counsel, WhatsApp Inc.' (2014) <<https://www.ftc.gov/public-statements/2014/04/letter-jessica-l-rich-director-federal-trade-commission-bureau-consumer>> accessed 12 December 2016.

² European Commission, Case COMP/M.7217 Facebook/Whatsapp 3 October 2014. 2014/C 417/02.

³ *ibid* [184] – [186].

⁴ Autorità garante della Concorrenza e del Mercato, 'WhatsApp fined for 3 Million Euro for having forced its users to share their personal data with Facebook' (2017) <<http://www.agcm.it/en/newsroom/press-releases/2380-whatsapp-fined-for-3-million-euro-for-having-forced-its-users-to-share-their-personal-data-with-facebook.html>> accessed 14 May 2017.

⁵ European Commission, 'Press Release: Commission fines Facebook €110 million for providing misleading information about WhatsApp takeover' (18 May 2017) <http://europa.eu/rapid/press-release_IP-17-1369_en.htm> accessed 29 May 2017.

and workable theory of privacy-related consumer harm. I therefore discuss different ways of framing a privacy-related theory of antitrust harm (II). Third, I suggest that willingness-to-pay studies in the form of conjoint analysis constitute the most appropriate methodological tool for competition authorities to quantify privacy-related price increases in the context of market definition and the analysis of consumer harm (III). By discussing potential objections to the use of conjoint analysis to account for privacy harm in merger control, I also uncover a fundamental misconception that underlies the current academic discussion about the role of privacy for competition analysis (IV).

This study, using the methodological tool of conjoint analysis, offers a workable proposal as to ‘how’ competition authorities could account for the adverse effects of a decrease in privacy protection on consumers as a consequence of a merger. It also suggests that consumers can be harmed by such a deterioration of data protection, even if it is in line with data protection rules. This insight casts doubt upon the widely shared assumption that deteriorations in the level of privacy protection resulting from a merger automatically amount to a breach of data-protection rules, and are thus adequately addressed by data protection rather than competition law. Showing that this ‘privacy fallacy’ underlies the widespread opposition to incorporating privacy considerations into competition analysis, it also provides an answer to the question as to ‘whether’ competition law should include privacy and data protection in its analysis. This answer is a clear ‘yes’.

II. The role of personal data in antitrust analysis

‘Big data’⁶ has become a buzzword in antitrust circles, catching the attention of policy makers,⁷ enforcers,⁸ practitioners,⁹ and academics¹⁰ alike. A fierce controversy has sparked in the antitrust

⁶ ‘Big Data’ has commonly been characterized by four ‘V’s: the *volume* of data; the *velocity* at which data is collected, used, and disseminated; the *variety* of information aggregated; and finally the *value* of the data. Each ‘V’ has increased significantly over the past decade.’ Stucke, Maurice E. and Allen P Grunes, *Big data and competition policy* (Oxford University Press 2016) 16; OECD, ‘Data-Driven Innovation for Growth and Well-Being: Interim Synthesis Report’ (2014) 11.

⁷ European Data Protection Supervisor, *Privacy and Competitiveness in the Age of Big Data: The Interplay between Data Protection, Competition Law and Consumer Protection in the Digital Economy: Preliminary Opinion of the European Data Protection Supervisor* (2014).

⁸ Competition and Markets Authority, ‘The commercial use of consumer data: Report on the CMA’s call for information’ (2015); German Monopoly Commission (Monopolkommission), ‘Hauptgutachten XX (2012/2013)’ (2014); Bundeskartellamt/Autorité de la Concurrence, ‘Competition Law and Data’ (2016); Bruno Lasserre, ‘Personal Data - Will Competition Law Collide with Privacy? Le point de vue de l’Autorité Française de la Concurrence’, *Concurrences - New frontiers of antitrust 2013*; German Monopoly Commission (Monopolkommission), ‘Special Report 68: Competition policy: The challenge of digital markets’.

⁹ Damien Geradin and Monika Kuschewsky, ‘Competition Law and Personal Data: Preliminary Thoughts on a Complex Issue’ 2013(2) *Concurrences* 14; Pamela J Harbour, ‘Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170’; Harbour, ‘Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170’ (n 9).

¹⁰ Pamela J Harbour and Tara I Koslove, ‘Section 2 in a Web 2.0 World: An Expanded Vision of Relevant Product Markets’ (2010) 76 *Antitrust Law Journal* 769. Allen P Grunes, ‘Another Look at Privacy’ (2013) 20(4) *George Mason Law Review*, 1107; Spencer Weber Waller, ‘Antitrust and Social Networking’ (2012) 90 *North Carolina Law Review* 1771; James C Cooper, ‘Privacy and Antitrust: Underpants Gnomes, the First Amendment, and Subjectivity’ (2013) 20(4) *George Mason Law Review*, 1129; Nathan Newman, ‘Search, Antitrust, and the Economics of the Control of User Data’ (2014) 31 *Yale J. on Reg.* 401; Darren S Tucker and Hill B Wellford, ‘Big Mistakes Regarding Big Data’ [2014] *Antitrust Source*, American Bar Association; D. D Sokol and Roisin E Comerford, ‘Antitrust and Regulating Big Data’ (2016) 23(5) *George Mason Law Review* 1129; Nils-Peter Schepp and Achim Wambach, ‘On Big Data and Its Relevance for Market Power Assessment’ [2015] *Journal of European Competition Law & Practice* 120; Daniel L Rubinfeld and Michal S Gal, ‘Access Barriers to Big Data’ (2017) 59 *Arizona Law Review* 339; Stucke, Maurice E. and Grunes (n 6); Francisco Costa-Cabral and Orla Lynskey, ‘Family ties: The intersection between data protection and competition in EU law’ (54) 2017(1) *Common Market Law Review* 11; Konstantina Bania, ‘The role of consumer data in the enforcement of EU competition law’ (18) 14(1) *European Competition Journal* 38; Marc Bourreau, Alexandre de Stree and Inge Graef, ‘Big Data and

literature as to whether ‘big data’ and privacy raise specific antitrust concerns. This debate mainly revolves around the question whether personal data constitutes an important source of entry barriers and market power.

II.1 The state of the art

For a long time, the prevailing, orthodox view amongst antitrust scholars was that big data does not raise any specific competition issue. This mainstream position emphasises that, far from being a scarce resource or essential input, data constitutes a non-rivalrous, ubiquitous good or commodity. This means that the availability and informational value of data remains more or less the same, regardless of the number of operators that use or control it.¹¹ The orthodox camp therefore assumes that the access to, and collection of personal data is relatively easy and inexpensive.¹² The ability of firms to enter and compete on the market, therefore, does not depend on their access to a large volume or a broad scope of personal data.¹³ From this perspective, even the concentration of high volumes of personal data in the hands of a single firm does not necessarily create market power and entry barriers. Especially not in fast changing, dynamic online markets which are characterised by historic ease of entry and ephemeral market shares.¹⁴

This orthodox view is, however, increasingly under assault. A growing number of antitrust scholars and enforcers contend that the accumulation of large amounts of personal data might give rise to important economies of scale¹⁵ and scope.¹⁶ They highlight that multisided online platforms also benefit from data-driven direct and indirect network effects.¹⁷ The access to personal data might also entail important learning effects,¹⁸ which allow online platforms to provide better products to their users¹⁹ and offer better targeted advertising services to advertising customers. Personal data is, thus, capable of generating positive (cross-platform) feedback loops,²⁰ for it enables online platforms to increase their attractiveness towards users, which in turn also allows them to attract more paying advertising customers.

Competition Policy: Market power, personalised pricing and advertising: Project Report - Centre on Regulation in Europe (CERRE) (2017).

¹¹ Sokol and Comerford (n 10), 1136; Andres V Lerner, ‘The Role of ‘Big Data’ in Online Platform Competition’ [2014] SSRN Journal, 21; Geoffrey A Manne and Ben Sperry, ‘The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework’ [2015] CPI Antitrust Chronicle, 10; Tucker and Wellford (n 10), 3–4.

¹² Sokol and Comerford (n 10), 1336–1338; Tucker and Wellford (n 10), 3,4,8; Manne and Sperry, ‘The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework’ (n 11) 10.

¹³ Tucker and Wellford (n 10), 12.

¹⁴ Sokol and Comerford (n 10), 1136–1138; Geoffrey A Manne and Ben Sperry, ‘The Law and Economics of Data and Privacy in Antitrust Analysis’ [2014] TPRC Conference Paper, 9; Tucker and Wellford (n 10), 7.

¹⁵ Schepp and Wambach (n 10), 121; Bourreau, Strel and Graef (n 10) 33; Stucke, Maurice E. and Grunes (n 6) 200–201.

¹⁶ Schepp and Wambach (n 10), 121; Bourreau, Strel and Graef (n 10) 34; Stucke, Maurice E. and Grunes (n 6) 21.

¹⁷ Michael L Katz and Carl Shapiro, ‘Network Externalities, Competition, and Compatibility’ (1985) 75(3) *The American Economic Review* 424–424; Bundeskartellamt/Autorité de la Concurrence (n 8) 27; Schepp and Wambach (n 10), 121; Harbour, ‘Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170’ (n 9) 5; Stucke, Maurice E. and Grunes (n 6) 200–204; Bourreau, Strel and Graef (n 10) 35–36.

¹⁸ Rubinfeld and Gal, ‘Access Barriers to Big Data’ (n 10) 355–356. Bourreau, Strel and Graef (n 10) 35. Stucke, Maurice E. and Grunes (n 6) 23, 45, 204.

¹⁹ Bundeskartellamt/Autorité de la Concurrence (n 8) 29–37; Harbour and Koslove (n 10), 778; C. Argenton and J. Prüfer, ‘Search Engine Competition with Network Externalities’ (2012) 8(1) *Journal of Competition Law and Economics* 73–79.

²⁰ David S Evans and Michael D Noel, ‘Defining Markets that Involve Multi-Sided Platform Businesses: An Empirical Framework with an Application to Google’s Purchase of DoubleClick’ [2007] Reg-Markets Center Working Paper No. 07-18, 5. David S Evans, ‘The Online Advertising Industry: Economics, Evolution, and Privacy’ [2009] *Journal of Economic Perspectives*, 9. Rubinfeld and Gal, ‘Access Barriers to Big Data’ (n 10) 347, 356, 359. Bourreau, Strel and Graef (n 10) 36. Stucke, Maurice E. and Grunes (n 6) 204.

From this perspective, data is more than a simple commodity,²¹ as it constitutes an important strategic ‘key competitive input’²² which allows firms to generate important data-driven efficiencies and gain a competitive edge over its competitors. To be capable of effectively competing in online markets, companies therefore need access to a minimum volume and variety of data which allows them to achieve sufficient economies of scale and scope,²³ and to harness data-driven network effects. The concentration of large amounts of personal data might therefore entail important entry barriers²⁴ and constitute a source of market power allowing the incumbent firm to tip the market in its favour.²⁵

While the antitrust literature still reflects a fundamental disagreement about whether the concentration and accumulation of personal data should be taken into account as a source of entry barriers and market power in competition analysis, competition authorities on both sides of the Atlantic have already been assessing the competitive role of personal data in merger analysis for quite some time.

II.2 The state of the enforcement practice

Three observations can be made about the role of personal data in the current state of merger enforcement by US and EU competition authorities. The first, most obvious, observation is that personal data do play an important part in the competitive analysis of data-driven mergers on both sides of the Atlantic. Indeed, the US Federal Trade Commission (FTC), the US Department of Justice (DoJ) and courts, as well as the EU Commission, have so far ascertained in a number of mergers whether personal data give rise to or reinforce horizontal,²⁶ vertical²⁷ and conglomerate²⁸ effects.²⁹ The FTC and the EU Commission also assessed whether mergers are used as a tool to eliminate a potential competitor with

²¹ *ibid* 50.

²² *ibid* 41.

²³ Rubinfeld and Gal, ‘Access Barriers to Big Data’ (n 10) 352–355.

²⁴ Bundeskartellamt/Autorité de la Concurrence (n 8) 27–37. Rubinfeld and Gal, ‘Access Barriers to Big Data’ (n 10) 349–368. Harbour, ‘Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170’ (n 9) 5. Inge Graef, ‘Market Definition and Market Power in Data: The Case of Online Platforms’ (2015) 38(4) *World Competition* 473 483–484.

²⁵ Argenton and Prüfer (n 19), 79.

²⁶ Federal Trade Commission, Complaint Reed Elsevier NV, et al. In the Matter of. Docket No. C-081 0133. Federal Trade Commission, Complaint in Dun & Bradstreet Corporation/Quality Education Data 6 May 2010. Docket No. 9342. US Department of Justice, Complaint in U.S. v. Bazaarvoice, Inc. Case No C. 13 0133. United States District Court of the Northern District of California *United States v. Bazaarvoice Inc. - Memorandum Opinion* (2014) Case No. 13-cv-00133-WHO. European Commission, COMP/M.6314 Telefónica UK/Vodafone/Everything Everywhere. C(2012) 6063 final [529]-[557]. Case COMP/M.7217 Facebook/Whatsapp (n 2) [84] - [141]. European Commission, Case COMP/M.8124 Microsoft/LinkedIn 6 December 2016. C(2016) 8404 final [167] - [181].

²⁷ European Commission, Case COMP/M.4731 Google/DoubleClick 2008. O.J. C 184/10 [289] - [329]. Case COMP/M.8124 Microsoft/LinkedIn (n 26) [246] - [277] and [370] - [381].

²⁸ Case COMP/M.4731 Google/DoubleClick (n 27) [359] - [366]. Case COMP/M.7217 Facebook/Whatsapp (n 2) [180] - [189]. Case COMP/M.8124 Microsoft/LinkedIn (n 26) [278] - [352].

²⁹ For a comprehensive summary of the EU Commission’s decisional practice in data-related mergers see Massimiliano Kadar and Bogdan Mateusz, ‘Big Data’ and EU Merger Control - A Case Review’ (2017) 8(8) *Journal for European Competition Law & Practice* 479.

access to an important database.³⁰ The antitrust authorities moreover recognised that data-driven efficiencies may outweigh the potential anticompetitive effects of a merger.³¹

The second observation is that the competition authorities and courts have only concluded in a few merger cases that personal data actually constitutes a source of market power. Only in three cases – Reed Elsevier/ChoicePoint, Dun&Bradstreet/Quality Education and Bazaarvoice/PowerReviews – have the US authorities and the US District Court of the Northern District of California found that personal data-driven entry barriers and network effects are likely to shield unilateral effects. More specifically, they held that the control of personal databases which are large in size, breadth and scope will give rise to barriers to entry and expansion in form of economies of scale and scope,³² as well as network effects³³ and reputational entry barriers.³⁴ The role of personal data as potential source of market power emerged most clearly in the Bazaarvoice/PowerReviews merger where the acquiring party, Bazaarvoice, acknowledged in internal documents that its ‘ability to leverage the data’ of its customer base constitutes a ‘key entry barrier’.³⁵ All three mergers had in common that personal data represented the actual product sold by the merging parties. Yet the mergers did not involve generic online user, but rather quite specific types of personal data; namely electronic public records,³⁶ data for marketing to kindergarten through twelfth-grade teachers, administrators, schools and school districts,³⁷ as well as online-user product ratings, reviews and analytics of related consumer behaviour.³⁸ Moreover, the merging parties in all three cases were market leaders who closely competed with each other.³⁹ Upon consummation of these acquisitions, the remaining competitors and potential entrants would therefore have had an insufficient access to quite specific types of personal data necessary to defeat the mergers’ anticompetitive effects.

The third observation is that the US competition and the EU Commission were reluctant to simply transpose these findings to mergers involving more generic personal (online) user data or to establish a ready-made presumption about the competitive role of personal data. This is most prominently reflected in the Google/DoubleClick merger. Both the FTC and the EU Commission assessed whether the integration of Google’s and DoubleClick’s previously separate datasets will bestow the merged entity

³⁰ Federal Trade Commission, Statement of Federal Trade Commission Concerning Google/DoubleClick 2007, Statement of Federal Trade Commission Concerning Google/DoubleClick. FTC File No. 071-0170 8. Case COMP/M.4731 Google/DoubleClick (n 27) [222] - [285]. Case COMP/M.7217 Facebook/Whatsapp (n 2) [143] - [163]. Discussing in this respect the Facebook/WhatsApp, Data Systems/Conversant, Google/Nestlabs, Google/Dropcam and Google/Waze mergers Stucke and Grunes however critically observe that competition authorities in the US and EU underestimated the negative effects of mergers in data-driven markets on potential competition Stucke, Maurice E. and Grunes (n 6) 74–99.

³¹ European Commission, Case COMP/M.5727 MICROSOFT/ YAHOO! SEARCH BUSINESS 2010. C(2010) 1077 [223]-[226]. Antitrust Division of the US Department of Justice, Decision to Close Its Investigation of the Internet Search and Paid Search Advertising Agreement Between Microsoft Corporation and Yahoo! Inc. 30 April 2017. See also Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 12.

³² Complaint Reed Elsevier NV, et al. In the Matter of (n 26) [14] - [15]. Federal Trade Commission, Analysis of Agreement Containing Consent Order to Aid Public Comment in Reed Elsevier NV, et al. In the Matter of. File No. 081-0133 1. Complaint in Dun & Bradstreet Corporation/Quality Education Data (n 26) [19].

³³ Complaint in U.S. v. Bazaarvoice, Inc. (n 26) [55] - [58]. *United States v. Bazaarvoice Inc. - Memorandum Opinion* (n 26) [240] - [259].

³⁴ Complaint Reed Elsevier NV, et al. In the Matter of (n 26) [14]. Complaint in Dun & Bradstreet Corporation/Quality Education Data (n 26) [20]. *United States v. Bazaarvoice Inc. - Memorandum Opinion* (n 26) [259].

³⁵ Complaint in U.S. v. Bazaarvoice, Inc. (n 26) [57]. *United States v. Bazaarvoice Inc. - Memorandum Opinion* (n 26) [244].

³⁶ Complaint Reed Elsevier NV, et al. In the Matter of (n 26).

³⁷ Complaint in Dun & Bradstreet Corporation/Quality Education Data (n 26).

³⁸ Complaint in U.S. v. Bazaarvoice, Inc. (n 26).

³⁹ Complaint Reed Elsevier NV, et al. In the Matter of (n 26) [12]. Complaint in Dun & Bradstreet Corporation/Quality Education Data (n 26) [1]. Complaint in U.S. v. Bazaarvoice, Inc. (n 26) [2]. *United States v. Bazaarvoice Inc. - Memorandum Opinion* (n 26) [3].

with an overwhelming competitive advantage in the online advertising market.⁴⁰ The underlying theory of harm assumed that the combination of Google's 'deep' search data and DoubleClick's 'broad' web surfing behaviour data might give rise to data-driven economies of scale and scope, as well as network and learning effects, which would allow the merged entity to better target its services and thus to attract more users and advertising customers.⁴¹ The US and EU competition watchdogs, however, discarded concerns that the combination of both parties' datasets might eventually lead to the tipping of the market and marginalise competitors. A central factor in their analysis was that DoubleClick was contractually barred from harnessing its access to customer data in order to generate network effects, as they belonged to its publisher and advertising clients.⁴² Equally decisive for the FTC's and Commission's analysis was the finding that even if both parties were to combine their datasets, Google's competitors in the online advertising market would continue to have access to a sufficient amount of equivalent – if not higher quality – personal data valuable for online advertising purposes.⁴³

Along similar lines, the EU Commission also concluded in subsequent mergers that the combination of previously separate personal datasets was unlikely to give rise to conglomerate,⁴⁴ horizontal⁴⁵ and vertical effects.⁴⁶ This however does not mean that the EU Commission has conclusively thrown out theories of harm cautioning against potential anticompetitive effects arising from the combination of two large sets of generic user data. Rather, it found in these mergers that the theory of harm was not backed by the actual facts of the case. In all cases, the merging parties were constrained either by contract⁴⁷ or by existing data protection rules in their ability to combine databases post-merger.⁴⁸ Most importantly, in all cases the EU Commission identified a number of alternative sources of personal data that would allow rivals to continue to provide equivalent competing products or services post-merger.⁴⁹ The Commission's analysis in these cases can be criticised in at least three respects. First of all, in some cases the Commission's market definition focused only on the paying online advertising market, while ignoring the 'free' user side of multi-sided online platforms.⁵⁰ Second, its analysis of the availability of

⁴⁰ Case COMP/M.4731 Google/DoubleClick (n 27) [359] - [366]. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 12–13.

⁴¹ Case COMP/M.4731 Google/DoubleClick (n 27) [359]. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 12. Kevin Coates, *Competition law and regulation of technology markets* (Oxford University Press 2011) 397. Peter P Swire, 'Submitted Testimony to the Federal Trade Commission Behavioral Advertising Town Hall' (2007)

⁴² Case COMP/M.4731 Google/DoubleClick (n 27) [361]-[363]. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 12.

⁴³ Case COMP/M.4731 Google/DoubleClick (n 27) [365]. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 12–13.

⁴⁴ Case COMP/M.7217 Facebook/Whatsapp (n 2) [180] - [189]. Case COMP/M.8124 Microsoft/LinkedIn (n 26) [218] - [244], [382] - [393].

⁴⁵ COMP/M.6314 Telefónica UK/Vodafone/Everything Everywhere (n 26) [529] - [557]. Case COMP/M.7217 Facebook/Whatsapp (n 2) [180]-[189]. Case COMP/M.8124 Microsoft/LinkedIn (n 26) [176] - [180].

⁴⁶ *ibid* [246] - [277] and [370] - [381].

⁴⁷ Case COMP/M.4731 Google/DoubleClick (n 27) [179]-[189], [298], [361]-[363]. COMP/M.6314 Telefónica UK/Vodafone/Everything Everywhere (n 26) [552].

⁴⁸ Case COMP/M.8124 Microsoft/LinkedIn (n 26) [180], [255] and [375].

⁴⁹ Case COMP/M.4731 Google/DoubleClick (n 27) [268]-[274], [365]. Case COMP/M.8124 Microsoft/LinkedIn (n 26) [176] - [180], [259] - [262], [276], [376]. COMP/M.6314 Telefónica UK/Vodafone/Everything Everywhere (n 26) [543] - [549].

⁵⁰ This was the case in the Google/Double Click and Microsoft/Yahoo! mergers. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 1, 3. Case COMP/M.4731 Google/DoubleClick (n 27) [44] - [81]. Case COMP/M.5727 MICROSOFT/ YAHOO! SEARCH BUSINESS (n 31) [60] - [87]. Harbour, 'Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170' (n 9) 7. Lapo Filistrucchi and others, 'Market Definition in Two-Sided Markets: Theory and Practice' [2013] TILEC Discussion Paper No. 2013-9, 16. Michal S Gal and Daniel L Rubinfeld, 'The Hidden Costs of Free Goods: Implications for Antitrust Enforcement' (2016) 80(3) Antitrust Law Journal 521 551.

alternative sources of data for existing or potential competitors remained cursory. The Commission indeed broadly assumed the fungibility of various types of available user data for online advertising purposes without considering their specific characteristics and suitability to replicate the information the merging parties derived from the combination of their datasets.⁵¹ Arguably, it also underestimated the role of size of the combined databases. The Commission presumed that access to various, scattered sources of personal data would allow competitors and entrants to make up for any competitive advantage the merging parties obtain from the combination of two large, unfragmented datasets.⁵²

Despite these shortcomings, the decisional practice by the competition authorities on both sides of the Atlantic unequivocally shows that they take the role of personal data as potential source of market power seriously. Their findings that personal data might in some cases actually increase entry barriers and strengthen the merged entity's market power⁵³ contradict voices in the literature which categorically exclude that personal data can give rise to entry barriers, network effects and market power. The current state of the decisional practice of US and EU authorities appears to be rather in line with commentators who recommend a case-by-case analysis of the role of personal data.⁵⁴ Central elements of their analysis are the market position of the merging parties, the conditions of entry, expansion and switching, the specific characteristics of the data involved. They moreover assess the availability of alternative sources that provide existing competitors or entrants access to personal data equivalent to that held by the merging parties post-merger. The current academic controversy about the relevance of personal data for competition analysis thus lags behind the decisional practice of EU and US competition authorities. While the academic community is still engaged in an acrimonious debate as to 'whether' personal data should be accounted for in competition analysis, competition authorities have already been grappling for a considerable time with the question of 'how' to assess the actual competitive impact of personal data.

II.3 The Facebook/WhatsApp merger – a vanguard of competition law analysis in data-driven markets?

This increasing awareness of the competitive role of personal data is most clearly reflected in the EU Commission's analysis of the Facebook/WhatsApp merger. Unlike in Google/DoubleClick, in which the FTC's and EU Commission's market definition has been fiercely criticised for focusing exclusively on the paying advertising-side of Google's platform,⁵⁵ in Facebook/WhatsApp the Commission adopted a more holistic market definition. Remarkably, it assessed not only the merger's impact on the paying online advertising market, but also its effects on the 'zero priced' markets for social networking and consumer communications services. Yet the Commission eventually held that merger is unlikely to produce unilateral effects on the social networking and consumer communications market, as Facebook

⁵¹ The Commission still assessed this aspect at least to some extent in Case COMP/M.4731 Google/DoubleClick (n 27) [268] - [273], [365]. It however entirely eschewed such an analysis Facebook/WhatsApp decision. Bourreau, Streeck and Graef (n 10) 51–52. Case COMP/M.7217 Facebook/WhatsApp (n 2) [188] - [189].

⁵² Case COMP/M.4731 Google/DoubleClick (n 27) [273].

⁵³ Complaint Reed Elsevier NV, et al. In the Matter of (n 26); Complaint in Dun & Bradstreet Corporation/Quality Education Data (n 26); Complaint in U.S. v. Bazaarvoice, Inc. (n 26); *United States v. Bazaarvoice Inc. - Memorandum Opinion* (n 26). See also the EU Commission's recent decision in Case COMP/M.8124 Microsoft/LinkedIn (n 26) [290] - [350]. As it has been handed down two years after Facebook/WhatsApp, the decision is discussed in more detail in the subsequent section 'Privacy as element of consumer choice'.

⁵⁴ In this sense, for instance Rubinfeld and Gal, 'Access Barriers to Big Data' (n 10); Schepp and Wambach (n 10).

⁵⁵ Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 1, 3. Case COMP/M.4731 Google/DoubleClick (n 27) [44] -[81]. Harbour, 'Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170' (n 9) 7. Filistrucchi and others (n 50), 16. Gal and Rubinfeld, 'The Hidden Costs of Free Goods' (n 50) 551.

and WhatsApp are not close competitors.⁵⁶ It also pointed out that consumers tend to multi-home and will remain capable of switching to competitive alternatives post-merger.⁵⁷

As in previous mergers, the Commission also considered the role of personal data as a source of market power, analysing economies of scale and scope, as well as network effects which might lead to barriers to entry and expansion, reputational entry barriers, and consumer lock-in.⁵⁸ In particular, the Commission assessed the extent to which Facebook could strengthen its position in the online advertising market by obtaining access to WhatsApp's user data so as to improve the targeting of its online advertising services.⁵⁹ Yet, the Commission observed that the merged entity would lack the ability and incentive to introduce online advertising or integrate the parties' databases. This conclusion was based on the observation that the matching of Facebook's and WhatsApp's databases would confront the merged entity with considerable technical hurdles⁶⁰ and would require WhatsApp to change its privacy policy. Such a change in the privacy policy would upset consumers and prompt them to switch to competing apps that offer higher privacy standards.⁶¹

The Commission's analysis, however, did not stop here. Going one step further, it engaged in an 'even if analysis' which explored what would happen if the merged entity integrated both parties' datasets despite the technological obstacles and potential losses. Even under this hypothetical scenario, the Commission concluded that the merger would not bring about any anticompetitive harm on the online advertising market. Rather, potential anticompetitive effects would be offset by a sufficient number of alternative platforms providing online advertising space and collecting user data that is not within the merged entity's exclusive control.⁶²

In light of the prominent role played by personal data in the Commission's assessment, the Facebook/WhatsApp merger has been referred to in the literature as 'the vanguard of the current analysis of data-driven mergers in multisided markets, where the product or service is free'.⁶³ Yet this view has been at least partially called into question by the subsequent change in WhatsApp's privacy-policy, less than two years after the merger. The merged entity's actual conduct thus blatantly belied the Commission's predictions which had played an important role in its unconditional clearance of the merger. As a natural experiment, the merger provides the unequivocal empirical evidence that the Commission's merger analysis committed an assessment error with respect to the merging parties' incentives to combine their previously separate sets of personal data. This brings us back to our initial question: Did the Commission get its analysis in the Facebook/WhatsApp decision wrong? Could it have been aware of merged entity's incentives to integrate Facebook's and WhatsApp's databases post-merger? How can the Commission's error be explained?

The most straightforward explanation for the Commission's erroneous assessment is that it blindly relied on the merging parties' misleading information when they claimed that they would be technologically unable to match their databases.⁶⁴ This interpretation is, however, not very plausible, in so far as the Commission itself has pointed out that this contention was not decisive for its decision to clear the

⁵⁶ Case COMP/M.7217 Facebook/Whatsapp (n 2) [101], [106] - [107].

⁵⁷ With regard to consumer communications market see *ibid* [105] - [114]. With regard to the social networking market see *ibid* [144] - [146].

⁵⁸ *ibid* [113], [127] - [136]. Eleonora Ocello and others, 'What's Up with Merger Control in the Digital Sector? Lessons from the Facebook/WhatsApp EU merger case' (2015/1) 4 accessed 28 April 2017.

⁵⁹ Case COMP/M.7217 Facebook/Whatsapp (n 2) [180] - [190]. Ocello and others (n 58) 6.

⁶⁰ Case COMP/M.7217 Facebook/Whatsapp (n 2) [185].

⁶¹ *ibid* [186], see also [173] - [174].

⁶² *ibid* [188]- [189], see also [176]-[179].

⁶³ Stucke, Maurice E. and Grunes (n 6) 79.

⁶⁴ European Commission, 'Press Release - Commission alleges Facebook provided misleading information about WhatsApp takeover' <http://europa.eu/rapid/press-release_IP-16-4473_en.htm>; European Commission (n 5).

merger. Indeed, under the ‘even if’ analysis, the Commission had ruled out any anticompetitive effects on the online-advertising market, even in the unlikely event that the merged entity was to start collecting and using data from WhatsApp users.⁶⁵ It is, therefore, safe to assume that Facebook’s submission of misleading information is not the reason for the Commission’s assessment error.

On the contrary, I contend that the errors in the Commission’s assessment can be explained by its failure to account for the economic role of privacy and the disclosure of personal data in its analysis of anticompetitive harm. Indeed, even if the Commission recognized the role of privacy policies as an increasingly important competitive parameter in the consumer communications services market,⁶⁶ the Commission at no time considered whether the matching of Facebook and WhatsApp’s databases and the ensuing change in WhatsApp’s privacy policy would cause consumer harm in the form of lower privacy protection on the consumer communications market. Such an analysis, however, would have shifted the Commission’s analytical focus on the economic role and strategic value of personal data in the online eco-system.⁶⁷ Most importantly, it would have prevented the Commission from hastily concluding that Facebook and WhatsApp lack the incentives to combine their databases and that the merger would not cause any antitrust harm, even under the assumption that the parties might adopt such a strategy.

Taking into consideration the economic role of privacy would have enabled the Commission to accurately assess the merging parties’ incentive to integrate their datasets post-merger. It would have revealed that the potential benefits arising from the matching of Facebook’s and WhatsApp’s databases would have exceeded potential losses as a consequence of consumer switching in response to a deterioration of WhatsApp’s privacy protection. A privacy-related theory of harm would also have directed the focus of the Commission’s analysis of potential anticompetitive effects from the online advertising to direct consumer harm in the form of lower privacy protection on the consumer communications apps market. While the Commission had concluded that the combination of databases would not cause any competitive harm on the online advertising market, the Commission simply omitted to assess whether this would entail any consumer harm on the consumer communications markets.

Far from looking at potential privacy-related consumer harm in the Facebook/WhatsApp merger, the EU Commission instead reiterated the same old mantra that privacy concerns as such do not fall within the scope of EU competition law, but are to be dealt with under the EU data protection rules.⁶⁸ The Facebook/WhatsApp merger thus shows that even though competition authorities already account for the competitive relevance of personal data, the role of privacy or data protection remains an important blind spot in their antitrust and merger analysis. In other words, while the ‘whether’ seems to be settled, the ‘how’ definitely needs improvement: although regularly assessing the role of personal data as potential source of market power, competition authorities so far turn a blind eye to privacy-related consumer harm.

III. Privacy as antitrust concern

The EU Commission’s failure to assess and identify the potential consumer harm arising from the matching of Facebook’s and WhatsApp’s databases can be explained by the fact that antitrust scholarship and enforcers have so far fallen short of putting forward a coherent theory of privacy-related consumer harm. While antitrust commentators and authorities have identified several data-related theories of harm, they exclusively focus on the role of personal data as a source of market power and

⁶⁵ European Commission (n 5).

⁶⁶ Case COMP/M.7217 Facebook/Whatsapp (n 2) [87].

⁶⁷ Costa-Cabral and Lynskey (n 10), 25–26.

⁶⁸ Case COMP/M.7217 Facebook/Whatsapp (n 2) [164]. Case COMP/M.4731 Google/DoubleClick (n 27) [368].

anti-competitive foreclosure. This is not only the case in the realm of merger control,⁶⁹ but also for theories of harm which examine vertical restraints on data-portability⁷⁰ and data as essential facility.⁷¹ Likewise, other less conventional theories assessing whether the cross-usage of data⁷² by a dominant market player may marginalize rivals exclusively focus on data as a source of anticompetitive foreclosure.

If applied to the online environment all these foreclosure theories locate the anticompetitive harm on the paying customer side of multisided platforms. These foreclosure effects only cause indirect (end-) consumer harm if they enable multisided platforms to charge non-competitive mark-ups on their online advertising services, which are then passed on to consumer prices for advertised goods or services.⁷³ By contrast, thus far, commentators and antitrust authorities have not assessed to what extent the accumulation of personal data not only harms competitors and advertising customers, but might actually also have immediate negative effects on consumers on the ‘free’ user side of online platforms.

III.1 Privacy-related theories of consumer harm

The blame for this absence of a clear privacy-related theory of antitrust harm lies, in my view, with the orthodox assumption that privacy does not constitute an antitrust concern, but should be properly addressed by consumer protection or privacy legislation.⁷⁴ This institutional argument hinges upon the assumption that data protection and efficiency or consumer welfare, as predominant goals of antitrust,⁷⁵ constitute incommensurable values which cannot be adequately balanced within the framework of antitrust analysis. This assumption has been expressly endorsed by the FTC, the EU Commission and the Court of Justice of the European Union, all of whom have repeatedly held that informational privacy and data protection concerns are irrelevant for competition assessment and are adequately protected under specific privacy and data-protection regulation.⁷⁶ The orthodox view thus equates privacy or data protection with other non-economic public policy objectives, such as environmental protection or

⁶⁹ Schepp and Wambach (n 10), 121, 123; Harbour, ‘Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170’ (n 9) 7.

⁷⁰ Geradin and Kuschewsky (n 9), 37; European Commission, ‘Commission probes allegations of antitrust violations by Google - Press Release of 30 November 2013 - IP/10/1624’ ; Google Inc. *Commitments Letter From Google Inc. To Chairman Leibowitz* (2013).

⁷¹ Frank Pasquale, ‘Paradoxes of Digital Antitrust: Why the FTC Failed to Explain its Inaction on Search Bias’ [2013] Harvard Journal of Law & Technology - Occasional Paper Series 1, 7; Geradin and Kuschewsky (n 9), 37.

⁷² Lasserre (n 8) 69; Newman (n 10), 432–434. For precedents finding that the cross-usage of user databases might amount to an abuse of dominant position see Autorité de la Concurrence, Décision n° 09-D-24 du 28 juillet 2009 relative à des pratiques mises en oeuvre par France Télécom sur différents marchés de services de communications électroniques fixes dans les DOM 2009, Décision n° 09-D-24 de Autorité de la Concurrence du 28 juillet 2009 - France Télécom; Autorité de la Concurrence, Avis n°10-A-13 du 14 juin 2010 de l’Autorité de la Concurrence relatif à l’utilisation croisée des bases de clientèle 2010; Avis n°10-A-13 du 14 juin 2010 de l’Autorité de la Concurrence relatif à l’utilisation croisée des bases de clientèle (n 72); Autorité de la Concurrence, Décision du 9 septembre 2014 relative à une demande de mesures conservatoires présentée par la société Direct Energie dans les secteurs du gaz et de l’électricité. Décision n° 14-MC-02; Autorité de la Concurrence, Décision du 21 mars 2017 relative à des pratiques mises en oeuvre dans le secteur de la fourniture de gaz naturel, d’électricité et de services énergétiques. Décision n° 17-D-06.

⁷³ Newman (n 10), 441.

⁷⁴ Cooper (n 10), 1135, 1143; Maureen K Ohlhausen and Alexander Okuliar, ‘Competition, consumer protection, and the right (approach) to privacy’ (2015) 80(1) Antitrust Law Journal 121 151 ff; Sokol and Comerford (n 10), 1142–1145.

⁷⁵ Robert H Bork, *The Antitrust Paradox: A Policy at War with itself* [1978] (Maxwell Macmillan 1993); Richard A Posner, *Antitrust Law* (University of Chicago Press 2001); Neelie Kroes, ‘European Competition Policy – Delivering Better Markets and Better Choice’ (SPEECH/05/512, 15 September 2005) <http://europa.eu/rapid/press-release_SPEECH-05-512_en.htm> accessed 23 March 2016.

⁷⁶ European Court of Justice *Case C-238/05 Asnef-Equifax* ECLI:EU:C:2006:734 [63]. *Case COMP/M.4731 Google/DoubleClick* (n 27) [368]. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 2. *Case COMP/M.7217 Facebook/Whatsapp* (n 2) [164].

employment, which traditionally fall outside the scope of competition law analysis.⁷⁷ This view, which also guided the Commission's analysis in Facebook/WhatsApp,⁷⁸ is, however, increasingly being challenged by commentators and – paradoxically – by the Commission's subsequent enforcement practice itself. The academic literature and, to a certain extent also the Commission's decisional practice, now point towards three routes that may enable the integration of privacy concerns into competition analysis.

III.1.1 Privacy as an element of product quality

The first route consists of considering the importance of privacy as one factor of product quality, which constitutes an important non-price parameter of competition in online markets.⁷⁹ Interestingly, EU and US antitrust authorities alike underline the importance of non-price parameters of competition, such as product quality, for their merger analysis.⁸⁰ The EU General Court also confirmed the Commission's approach in Microsoft/Skype where it assessed the merger's potentially detrimental impact on non-price competition in the form of degradation of innovation and service quality.⁸¹ The increasing importance of non-price competition perhaps surfaces most clearly in the EU Commission's recent analysis of the Dow Chemical/DuPont merger. In this case, the EU Commission not only extensively ascertained the concentration's effect on the non-price parameter of innovation in the crop production industry,⁸² but also pointed to the merger's effect on public policy concerns, such as food safety and food security.⁸³ Along similar lines, competition authorities could assess how a merger affects data protection as an important facet of product quality or innovation and even account for the broader societal consequences of a reduction in privacy protection.

Antitrust authorities have, however, been largely reluctant to block a merger on the sole ground of its negative effect on product quality or other parameters of non-price competition.⁸⁴ This is clearly reflected in the Commission's analysis in Facebook/WhatsApp, where it observed that privacy is increasingly valued by consumers.⁸⁵ Yet it shied away from actually assessing whether the merger would lead to a decrease in privacy being an important element of product quality. This reluctance might be explained by the fact that, unlike price, product quality is a multi-dimensional concept, which is difficult to measure and might give rise to imprecise and complex comparisons.⁸⁶ Moreover, the relationship

⁷⁷ Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 2.

⁷⁸ Case COMP/M.7217 Facebook/Whatsapp (n 2) [164].

⁷⁹ Stucke, Maurice E. and Grunes (n 6) 61, 65-66. For a critical discussion of this argument see Manne and Sperry, 'The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework' (n 11) 5.

⁸⁰ Antitrust Division of the US Department of Justice/Federal Trade Commission, Merger Guidelines 2010 2. European Commission, Commission Guidelines on the assessment of horizontal mergers 2004. O.J. C/31/5 para. 8. Lisa Kimmel and Jens Kestenbaum, 'What's Up with WhatsApp? A Transatlantic View on Privacy and Merger Enforcement in Digital Markets' (2014) 29(1) Antitrust 48-53.

⁸¹ European Commission, Case COMP/M.6281 Microsoft/ Skype. C(2011)7279 [81], [144] - [169]. General Court of the European Union *Case T-79/12 Cisco v Commission* ECLI:EU:T:2013:635.

⁸² European Commission, Case COMP/M.7932 Dow/DuPont 27 March 2017 [277] - [279], [284] - [302], [342] - [352], [1955] - [3297] and Annex IV.

⁸³ *ibid* [1976] - [1980].

⁸⁴ Stucke, Maurice E. and Grunes (n 6) 115.

⁸⁵ Case COMP/M.7217 Facebook/Whatsapp (n 2) [87]. This was also the case in the FTC's assessment of Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 2.

⁸⁶ Manne and Sperry, 'The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework' (n 11) 3.

between privacy and other features of product quality is ambiguous, because the access to more user data may also enable an online platform to improve the overall product quality.⁸⁷

Again unlike price, product quality is also a highly subjective concept. Consequently, competition authorities might be confronted with difficult interpersonal comparisons, when they have to compare the harm to a small consumer group which values privacy as product quality, with the potential benefits that a majority of consumers derives from a merger.⁸⁸ In order to avoid the difficulties of assessing a merger's effect on product quality, the orthodox view simply assumes that product quality is actually reflected in quality-adjusted prices. It therefore concludes that it is sufficient to focus on the merger's effects on prices.⁸⁹ This view not only reflects the predominant influence of neoclassical price theory on competition analysis, but also illustrates that antitrust authorities lack adequate tools and methodologies to account for privacy as a non-price dimension of product quality.⁹⁰

III.1.2 Privacy as an element of consumer choice

A second route to incorporate privacy in competition law analysis consists in framing privacy as an important element of consumer choice. This consumer choice approach has been most recently endorsed by the EU Commission in the Microsoft/LinkedIn merger. This decision, handed down two years after the clearance of the Facebook/WhatsApp merger, constitutes the first – and so far only – occasion where the Commission recognised that the matching of generic personal user data might foster conglomerate effects capable of foreclosing competitors or potential entrants.⁹¹ The Microsoft/LinkedIn merger constitutes all the more a turning point in the Commission's assessment of data-driven mergers in so far as it held that these foreclosure effects would give rise to privacy-related consumer harm, because they are likely to eliminate existing competitors which offer their users a higher degree of privacy protection than LinkedIn does. The merger would thus have restricted consumer choice in relation to privacy, which, in the Commission's view, constitutes an important parameter of competition.⁹²

At first glance, the Commission's approach of framing privacy-related consumer harm as a reduction in consumer choice seems to be an appealing solution. This approach is in line with the merger policy guidelines on both sides of the Atlantic, which acknowledge that the reduction of product variety produces consumer harm.⁹³ It also reflects the importance EU competition law traditionally attributes to consumer choice⁹⁴ and stands for a more holistic understanding of consumer welfare.⁹⁵

The consumer choice approach, however, also bears a number of shortcomings. While being a useful tool to identify privacy-related consumer harm resulting from vertical or conglomerate foreclosure effects, it is only of limited analytical added value for the assessment of privacy harm as a consequence of a horizontal merger, which by definition reduces consumer choice by eliminating one independent

⁸⁷ *ibid* 4. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 12. Decision to Close Its Investigation of the Internet Search and Paid Search Advertising Agreement Between Microsoft Corporation and Yahoo! Inc. (n 31). Case COMP/M.5727 MICROSOFT/ YAHOO! SEARCH BUSINESS (n 31) [223]-[226].

⁸⁸ Manne and Sperry, 'The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework' (n 11) 6.

⁸⁹ Manne and Sperry, 'The Law and Economics of Data and Privacy in Antitrust Analysis' (n 14) 3.

⁹⁰ Stucke, Maurice E. and Grunes (n 6) 107–116.

⁹¹ Case COMP/M.8124 Microsoft/LinkedIn (n 26) [290] - [350]; see in particular [324] and [328].

⁹² *ibid* [350].

⁹³ Commission Guidelines on the assessment of horizontal mergers (n 80) [8]. Merger Guidelines 2010 (n 80) 26.

⁹⁴ Peter Behrens, 'The "Consumer Choice Paradigm" in German Ordoliberalism and its Impact upon EU Competition Law' (Europa-Kolleg Hamburg - Discussion Paper N°1/14 2014).

⁹⁵ Robert H Lande and Neil W Averitt, 'Using the 'Consumer Choice' Approach to Antitrust Law' (2007) 74(1) *Antitrust Law Journal* 175; Paul Nihoul and others (eds), *Choice - a new standard for competition law analysis?* (Concurrences Review 2016).

player from the market. In the context of horizontal unilateral effects analysis, consumer choice is actually already accounted for by the assessment of the closeness of competition between the merging parties. Indeed, a horizontal merger would only lead to the elimination of consumer choice if the acquired merging party is a close competitor of, and, consequently, provides an important competitive alternative with respect to the products of the acquiring party. This is also reflected in Facebook/WhatsApp where the Commission held that the merger is unlikely to harm competition on the consumer communications services market, because the merging parties are not close competitors. Even if the Commission had held that both parties were close competitors, or that WhatsApp could be considered as a maverick firm with regard to privacy,⁹⁶ it would still have faced similar challenges as those under the ‘product quality’ route. The Commission, in fact, would have been required to carry out a tricky balancing exercise weighing the restrictions of consumer choice with pro-competitive efficiencies.

III.1.3 Privacy as a non-monetary price

The shortcomings of the product quality and consumer choice approaches could be at least partially addressed by a third way of incorporating privacy into competition analysis, which conceptualizes the disclosure of personal data as a non-monetary price users pay in order to use free goods and services. In fact, a growing strand in the literature stresses that personal data is more than a mere element of product quality or consumer choice. Rather, personal data or privacy increasingly constitute the actual non-monetary counterpart that consumers pay for using free goods or services on the user side of zero-priced online platforms.⁹⁷

The intuition that privacy constitutes the actual price consumers pay in online markets is informed by the economic concept of ‘privacy calculus’.⁹⁸ This model assumes that consumers assess and trade-off the costs and benefits of disclosing personal information when engaging in online transactions or choosing free online services,⁹⁹ with the aim of maximising their gains, i.e. the difference between costs and benefits of the information disclosure.¹⁰⁰ It therefore also makes economic sense to refer to the

⁹⁶ In Microsoft/LinkedIn the Commission has been mostly concerned with the elimination of the competing German provider of professional social networks, XING, which ‘seems to offer a greater degree of privacy protection than LinkedIn as consequence of conglomerate effects. Arguably, XING might qualify as a ‘privacy maverick’. It remains however unclear whether the elimination of other competitors providing less important privacy protection would also have raised similar concerns about the elimination of consumer choice. Case COMP/M.8124 Microsoft/LinkedIn (n 26) [350]. For the notion of a maverick firm Merger Guidelines 2010 (n 80) 3. Commission Guidelines on the assessment of horizontal mergers (n 80) [42].

⁹⁷ Gal and Rubinfeld, ‘The Hidden Costs of Free Goods’ (n 50) 522, 528. John M Newman, ‘Antitrust in Zero-Price Markets: Foundations’ (2015) 164 U. Pa. L. Rev. 149 173. Magali Eben, ‘How Free Internet Services Challenge Traditional Antitrust Tools: Personal Data as a Price’ [2016], 11–33 accessed 23 January 2017; Harbour, ‘Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170’ (n 9) 10; Weber Waller (n 10), 1783; Allen P Grunes and M. E Stucke, ‘No Mistake About It: The Important Role of Antitrust in the Era of Big Data’ [2015] University of Tennessee Legal Studies Research Paper No. 269, 4–6; Stucke, Maurice E. and Ariel Ezrachi, ‘When Competition Fails to Optimise Quality: A Look at Search Engines’ [2015] University of Tennessee Legal Studies Research Paper No. 268, 36.

⁹⁸ Tamara Dinev and Hart Paul, ‘An Extended Privacy Calculus Model for E-Commerce Transactions’ (2003) 17(1) Information Systems Research 61 62.

⁹⁹ Il-Horn Hann and others, ‘Overcoming Online Information Privacy Concerns: An Information-Processing Theory Approach’ (2007) 24(2) Journal of Management Information Systems 13 17; Dinev and Hart Paul (n 98), 62–68; Il-Horn Hann and others, ‘Online Information Privacy: Measuring the Cost-Benefit Trade-Off’ (2002). International Conference of Information Systems Proceedings 2–3 <<http://aisel.aisnet.org/icis2002/>> accessed 22 November 2017; Joseph E Phelps, Giles D'Souza and Glen J Nowak, ‘Antecedents and Consequences of Consumer Privacy Concerns: An Empirical Investigation’ (2001) 15(4) Journal of Interactive Marketing 2 4; Dinev and Hart Paul (n 98), 62.

¹⁰⁰ Hann, Hui and others (n 99), 17; Dinev and Hart Paul (n 98), 62–68; Hann and Hui and others (n 99) 2–3; Phelps, D'Souza and Nowak (n 99), 4; Dinev and Hart Paul (n 98), 62.

amount of personal data to be transferred in exchange for the free service provided as the non-monetary price consumers pay when they use a zero-priced good or service.¹⁰¹ If one accepts the economic premise that personal data or privacy constitute the price consumers pay for free online services, a decrease in privacy is to be considered as tantamount to an increase in price.¹⁰²

III.2 Practical implications of the concept of privacy-price

What would be the added value of framing privacy as price in merger analysis? In my view, such an approach would expand the toolbox of merger control in data-driven markets in two respects.

III.2.1 Privacy-price as methodological tool for market definition

In the first place, the insight that privacy constitutes a non-monetary price in data-driven markets might enable competition authorities to stay abreast of major challenges posed by market definition in online markets characterised by the presence of multisided platforms and the provision of zero-priced online services. These challenges are twofold.

On the one hand, in a number of cases competition authorities and courts failed to account for the interdependencies between the different market-sides of multisided platforms. They focused exclusively on their paying, advertising side, while ignoring the free, user side.¹⁰³ Economic literature, however, emphasizes that a market definition focusing only on the paying side of a multisided platform does not adequately identify the potential consumer harm, and also ignores the competitive constraints exercised by customers or competitors on its free user side. Competition authorities should, therefore, holistically include all relevant sides of the platform in their market definition, in order to account for the competitive interdependencies and dynamics between the different platform sides.¹⁰⁴

On the other hand, zero-pricing adds another layer of methodological complexity to market definition in the online eco-system. Indeed, the conventional method of defining markets, the hypothetical monopolist, or Small, but Significant and Non-Transitory Increase in Price (SSNIP) test, relies on prices to identify the competitive constraints in a given market. Yet prices are not the most appropriate analytical tool to analyse competition in markets where goods or services are provided for free, and price, consequently, does not constitute a parameter of competition.¹⁰⁵

To address these challenges, a number of antitrust commentators have therefore suggested that competition authorities should define a market which accounts for the role of personal data on both the

¹⁰¹ Pamela J Harbour, 'Concurring Statement of Commissioner Pamela Jones Harbour, FTC Staff Report: Self-Regulatory Principles for Online Behavioral Advertising' (2009); European Data Protection Supervisor (n 7) 19; Swire (n 41); Robert H Lande, 'The Microsoft-Yahoo Merger: Yes, Privacy Is an Antitrust Concern' [2008] University of Baltimore School of Law Legal Studies Research Paper No. 2008-06; Grunes (n 10), 1115; Jan Whittington and Chris J Hoofnagle, 'Unpacking Privacy's Price' (2012) 90(5) North Carolina Law Review 1327 1346, 1357-1362.

¹⁰² Stucke, Maurice E. and Ezrachi (n 97), 36; Newman (n 10), 442-443; Bundeskartellamt/Autorité de la Concurrence (n 8) 24-25.

¹⁰³ Harbour, 'Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170' (n 9) 7. Filistrucchi and others (n 50), 16. Gal and Rubinfeld, 'The Hidden Costs of Free Goods' (n 50) 551. Statement of Federal Trade Commission Concerning Google/DoubleClick (n 30) 1, 3. Case COMP/M.4731 Google/DoubleClick (n 27) [44] - [81]. United States District Court of the Northern District of California *Kinderstart.com LLC v. Google, Inc.* No. C 06-2057 JF (RS) [2007].

¹⁰⁴ Richard Schmalensee and David S Evans, 'Industrial Organization of Markets with Two-Sided Platforms' (2007) 3(1) Competition Policy International 151 159-161. David S Evans and Michael Noel, 'Defining Antitrust Markets When Firms Operate Two-Sided Platforms' (2005) 2005 Colum. Bus. L. Rev. 667 114. Evans and Noel (n 20), 8-9. Gal and Rubinfeld, 'The Hidden Costs of Free Goods' (n 50) 549-550. Coates (n 41) 397; Filistrucchi and others (n 50), 8-12.

¹⁰⁵ Gal and Rubinfeld, 'The Hidden Costs of Free Goods' (n 50) 549. Newman (n 97), 195-196.

paying and free market-sides of a multisided platform when assessing data-driven mergers.¹⁰⁶ To this end, they could use privacy as a proxy to substitute monetary prices as a methodological tool for market definition. Instead of assessing consumers' reaction in response to a Small, but Significant and Non-transitory Increase in Price (SSNIP) by a hypothetical monopolist, competition authorities could define a data market by testing users' response to a Small, but Significant and Non-transitory Decrease in Privacy (SSNDP test).¹⁰⁷ The SSNDP test, thus, incorporates the insight that consumers barter on the user side of multisided online platforms the disclosure of personal data in exchange for free services.¹⁰⁸

The analytical added-value of accounting for personal data as an essential element of market definition has, however, been repeatedly challenged. Antitrust commentators stress that in most cases personal data only constitutes an input for other products and services, such as online advertising services. From this vantage point, the definition of a data market only makes sense if data constitutes the actual product to be sold on a market.¹⁰⁹ This argument, however, obfuscates the underlying economic value of personal data in the online platform eco-system and turns a blind eye to the fact that privacy constitutes the economic counterpart users barter in exchange of services on the free user side of online platforms.

The limitations of this argument become evident in the Commission's market definition in Facebook/WhatsApp. The Commission indeed echoed this view when it refrained from defining any separate product market for personal data. It held that there is no separate market for user data, as Facebook did not sell any data or data-analysing services and that WhatsApp did not collect any data valuable for advertising purposes.¹¹⁰ By exclusively focusing on whether personal data is actually sold, or used as an input on the advertising side of the merging multisided platforms, the Commission ignored, however, the role of privacy as non-monetary price on the free consumer communications market. The Commission's approach thus replicated a similar error to that which arises if a market definition exclusively focuses on the paying side of a multisided platform.

The Commission's reluctance to account for privacy or data in its market definition of the consumer communications services market indeed constitutes one explanatory factor for its failure to predict consumer harm as a consequence of the matching of Facebook's and WhatsApp's databases and the ensuing change in WhatsApp privacy policy. Although accounting for both the paying (online advertising services) and free (social networking, consumer communications services) market sides of the merging multisided platforms, it assessed each market in isolation and under the prism of price increases. This static market definition, however, completely overlooked the existing spillover effects between the advertising and the consumer communications services market. Yet, in hindsight, it is exactly these cross-platform effects which explain why the merging party eventually integrated Facebook's and WhatsApp's databases.

By looking at the consumer communications services and online advertising markets in isolation, the Commission characterized the matching of the parties' datasets and the ensuing change in WhatsApp's privacy policy as a self-defeating strategy. This conclusion, however, rests on the erroneous assumption that a change in WhatsApp's privacy policy would induce consumers to switch to competing apps on the consumer communications services market. This, in turn, would also entail negative spillovers on the online advertising side, which would inflict even more losses on the merged entity. The problem of this assumption is, however, that it implicitly relies on a market definition which applies the analytical prism of the SSNIP test to a zero-priced market. In a multisided platform environment, a price increase

¹⁰⁶ Harbour, 'Dissenting Statement of Commissioner Pamela Jones Harbour in the Matter of Google/DoubleClick F.T.C. File No. 071-0170' (n 9) 4, 9. Harbour and Koslove (n 10), 773. Bania (n 10), 42–55. Graef (n 24), 492–494.

¹⁰⁷ Newman (n 97), 181–182. Gal and Rubinfeld, 'The Hidden Costs of Free Goods' (n 50) 551–552. Case COMP/M.6281 Microsoft/ Skype (n 81) [81]. See also Eben (n 97), 33–37. Stucke, Maurice E. and Grunes (n 6) 118–122.

¹⁰⁸ Gal and Rubinfeld, 'The Hidden Costs of Free Goods' (n 50) 522, 528. Newman (n 97), 173. Eben (n 97), 11–33.

¹⁰⁹ Tucker and Wellford (n 10), 4–6.

¹¹⁰ Case COMP/M.7217 Facebook/Whatsapp (n 2) [70] - [72].

indeed not only triggers consumer switching on the user side, but is also likely to decrease the attractiveness of the platform and consequently entail demand-side substitution on its advertising side. Yet this negative feedback effect between the free and paying side of the multisided platform does not necessarily materialise in the case of privacy-price increases. Owing to information asymmetries, it is more difficult for consumers to detect changes in privacy policy than monetary price increases. Hence, consumers will not necessarily switch in response to a change in the level of privacy protection, even if switching costs are low. Unlike a price increase, a decrease in the protection of privacy will also not necessarily lead to a spillover effect that decreases the platform's attractiveness for advertisers. As a result, it might even boost the attractiveness of the platform's advertising side, as the access to a larger amount of user data enables the platform to provide better targeted advertising services.

The definition of a hypothetical data market by means of an SSNDP test would have allowed the Commission to apprehend the competitive relationship between Facebook and WhatsApp with respect to privacy and to identify the positive feedback effect that a change in the privacy level in the consumer communications services market might have on the online advertising market. Such a dynamic market definition, informed by the concept of privacy-price, would have indicated that, far from being a self-defeating strategy, a lowering of privacy protection and an increase of the privacy-price on the free user side may constitute rather a strategic complement to a profit-maximizing strategy on the online advertising market.

III.2.2 Privacy-price as an analytical basis for a theory of privacy-related consumer harm

The theory of harm is the second domain in which the conceptualization of personal data as a price would enhance competition authorities' merger analysis. Focusing on privacy as a non-monetary price for free online services, in fact, points to a more immediate form of consumer harm on the free user side of online platforms than does competition authorities' current focus on indirect consumer harm as a consequence of data-driven foreclosure. The concept of a privacy-price, indeed, suggests that a decrease in privacy protection resulting from a merger may lead to a reduction in consumer welfare akin to that resulting from price increases.¹¹¹

This proposition is actually less esoteric than it might actually appear in the first place. The German Competition Authority, for instance, has recently articulated such a theory of direct privacy-related consumer harm in its current investigation against Facebook.¹¹² The *Bundeskartellamt* has come to the preliminary conclusion that Facebook has abused its dominant position and exploited users by imposing unfair terms and conditions on consumers which constituted a systematic violation of data protection rules.¹¹³

A similar theory of harm has the potential to also inform and complement the unilateral effects analysis in horizontal mergers that assesses whether the proposed transaction bestows the merged entity with the ability and incentives to raise prices or decrease output or quality to the detriment of consumers. Instead of focusing exclusively on the merger's unilateral effects on price or quality, the competition authority could also determine to what extent the elimination of competitive constraints as a result of the removal

¹¹¹ Stucke, Maurice E. and Ezrachi (n 97), 36; Newman (n 10), 442–443; Bundeskartellamt/Autorité de la Concurrence (n 8) 24–25. This is also one of the underlying theories of harm in the German Competition Authority's investigation against Facebook Bundeskartellamt, *Bundeskartellamt initiates proceeding against Facebook on suspicion of having abused its market power by infringing data protection rules* (2016); Ocello and others (n 58) 6.

¹¹² Bundeskartellamt, *Bundeskartellamt initiates proceeding against Facebook on suspicion of having abused its market power by infringing data protection rules* (n 111). For a critical discussion of this theory of harm, pointing out the difficulty to establish the causal link between Facebook's dominant position and the imposition of unfair terms and conditions see Jens-Uwe Franck, 'Eine Frage des Zusammenhangs: Marktbeherrschungsmissbrauch durch rechtswidrige Konditionen: Facebook im Visier des Bundeskartellamts' [2016] *Zeitschrift für Wettbewerbsrecht (ZWÉR)* 137.

¹¹³ Bundeskartellamt, *Preliminary assessment in Facebook proceeding: Facebook's collection and use of data from third-party sources is abusive* (2017).

of a close competitor increases the merged entity's ability and incentive to deteriorate the level of privacy.¹¹⁴ Such would be the case if the merged entity could internalize part of the losses arising from users' demand substitution in response to the decrease in the level of privacy, by diverting part of these users to the previously independent close competitor.¹¹⁵ The privacy-price concept thus would allow competition authorities to integrate privacy in their upward pricing pressure test in horizontal merger cases. Moreover, a unilateral effects analysis focusing on privacy harm could also account for the overall effect of the merger on privacy within a given market, by assessing to what extent the 'strategic complementarity' between the merged entity and its competitors entices other providers to lower their privacy standards.¹¹⁶

Such a privacy-related theory of consumer harm would have enriched the Commission's analysis in the Facebook/WhatsApp merger in several respects. First, it would have provided the Commission with a clear theory of harm as to how the merger between Facebook/WhatsApp negatively affected users in the consumer communications market. In its assessment, the Commission engaged in the first step of a unilateral effects analysis on the consumer communications market without articulating a specific theory of harm. The Commission simply omitted to explain whether it was looking for an increase in price, or decrease in quality or innovation as a potential outcome of the merger. Instead, the Commission found that merger did not raise any competition concerns in this market, because the merging parties were not close competitors. Based on the concept of privacy-price, the Commission could have realised that the concentration of the two parties' datasets would not only give rise to potential antitrust concerns on the online advertising market, but was likely to increase privacy-prices on the consumer communications market. In fact, the potential combination of both parties' datasets and the ensuing decrease in WhatsApp's privacy protection should have been the main object of the Commission's unduly truncated unilateral effects analysis on the consumer communications market.

Second, a theory of harm based on the concept of a privacy-price would have provided the Commission with a more comprehensive understanding of the closeness of competition between Facebook and WhatsApp. The Commission's finding that the parties are not close competitors hinged upon the observation that Facebook's and WhatsApp's messenger apps are complementary products rather than being in direct competition to each other,¹¹⁷ since consumers are multi-homing¹¹⁸ and the two apps differ in their functionalities and privacy policy.¹¹⁹ Instead of apprehending privacy as the actual price consumers pay in exchange for the free use of consumer communications apps, the Commission perceived privacy merely as one quality dimension of a consumer communications app.¹²⁰ At no time, however, did the Commission assess the extent to which WhatsApp exercised through the higher level of privacy protection of its app a competitive constraint on Facebook messenger. A privacy-based theory of harm assessing consumers' reactions to changes in the level of privacy would have yielded a more accurate picture of the closeness of the competitive relationship between the merging parties and their rivals on the consumer communications market.

Third, a theory of harm which conceptualizes privacy as a price would have complemented the Commission's analysis of the merged entity's ability and incentive to match the parties' datasets and

¹¹⁴ In the Dow/Dupont Merger the Commission applied such a theory of harm of unilateral effects analysis to assess the merger's effect on the non-price parameter of innovation Case COMP/M.7932 Dow/DuPont (n 82) [2000] - [2020].

¹¹⁵ See in this sense Merger Guidelines 2010 (n 80) 21. Commission Guidelines on the assessment of horizontal mergers (n 80) [24].

¹¹⁶ *ibid.* Raymond Deneckere and Carl Davidson, 'Incentives to Form Coalitions with Bertrand Competition' (1985) 16(4) *The RAND Journal of Economics* 473. Jeremy I Bulow, John D Geanakoplos and Paul D Klemperer, 'Multimarket Oligopoly: Strategic Substitutes and Complements' (1985) 93(3) *Journal of Political Economy* 488.

¹¹⁷ Case COMP/M.7217 Facebook/Whatsapp (n 2) [106].

¹¹⁸ *ibid* [105].

¹¹⁹ *ibid* [102].

¹²⁰ *ibid.* Ocello and others (n 58) 6.

lower WhatsApp's privacy protection post-merger. The Commission could have actually assessed under the unilateral effects analysis to what extent the merger, by removing WhatsApp or Facebook as an important competitive constraint, would have enabled the parties to partially internalize potential losses ensuing from consumer demand otherwise diverted to the merging partner in response to the lowering of privacy protection. Absent the merger, both parties might have faced potential losses as a consequence of consumers switching in response to the lowering of their privacy standards. The merger thus might have allowed Facebook and WhatsApp to profitably lower their privacy protection, by enabling them to capture part of the losses which would have made such a strategy unprofitable prior to the merger. As a consequence, a unilateral effects analysis focusing on the merger's effect on privacy-price on the consumer communications market would have prevented the Commission from erroneously concluding that the merged entity would lack the incentives to engage in such a strategy.

The Commission's erroneous assessment of Facebook's and WhatsApp's incentives, indeed, relied heavily on the assumption that they would refrain from such a strategy since consumers were multi-homing and faced low switching costs in the consumer communications market. This assumption, however, presupposes that consumers are able to detect changes in privacy-prices with the same ease as monetary price increases. Such an assumption, however, ignores the role of information asymmetries on users' switching behaviour in response to changes in privacy. Moreover, the Commission did not attribute sufficient weight to the importance of direct network effects being the source of consumer lock-in and status quo bias. Arguably, these network effects clearly advantaged WhatsApp and Facebook as market leaders in all EU Member States.¹²¹ In hindsight, Facebook's decision to integrate the merging parties' databases post-merger suggests that potential countervailing effects of multi-homing and low switching costs were arguably defeated by the important network effects which locked-in consumers and prevented them from churning to competing apps in response to an increase of privacy-prices post-merger. Unlike a theory of harm relying on price as a competitive parameter, a privacy-related theory of harm would thus also fare better in accounting for insights of behavioural economics regarding the effect of information asymmetries and cognitive biases on consumers' privacy choices and switching behaviour.

Fourth, a unilateral effects analysis and market definition focusing on privacy as a price would have enabled the Commission to internalize cross-platform effects in its unilateral effects analysis on the consumer communications market. On this basis, the Commission would have grasped that the merged entity's incentives to integrate both parties' databases had been reinforced by the potential gains in advertising revenues as a consequence of a combination of WhatsApp's with Facebook's user data. In retrospect, one can assume that the merged entity's expected increased revenues in the online advertising market have outweighed any potential losses due to consumer switching in the consumer communications services market in response to a deterioration of WhatsApp's privacy policy. Therefore, a holistic assessment of the merging parties' incentives, internalizing spillover effects between different sides of a platform, would have allowed the Commission to predict the incentives of the merged entity and to foresee its negative impact on privacy standards on the consumer communications services market.

Finally, a privacy-related theory of harm might also have enabled the Commission to assess the extent to which Facebook perceived WhatsApp as a maverick in the consumer communications services market and as a potential competitive threat to its core business in the social networking market. Before the merger, in most EU countries,¹²² WhatsApp had changed its business model from a subscription-based to a free-of-charge provision of its app. Unlike Facebook, WhatsApp, however, continued to rely on a 'no ads' and privacy-based business model before the merger. In the long term, this could have undermined Facebook's user-data- and advertising-driven business model as allegedly the only economically feasible way of providing free of charge social networking and communication services.

¹²¹ Case COMP/M.7217 Facebook/Whatsapp (n 2) [101], [106] - [107].

¹²² Except in UK and IT where it charged an annual fee of 0,89 EUR

IV. How can competition authorities measure privacy-price increases?

The argument that the Commission's assessment of the Facebook/WhatsApp merger should have taken into account privacy as the price in the context of market definition and the analysis of privacy-related competition harm begs, however, the question as to how price increases in form of deterioration of privacy protection can be measured. Arguably, the Commission could have relied on two different methodologies to identify price increases or consumer harm in the form of changes in the level of privacy.

IV.1 Qualitative methods

For the time being, commentators and competition authorities have put the emphasis almost exclusively on qualitative ways to measure privacy-related consumer harm. In a recent report, the French and German competition authorities, for instance, suggested that data protection regulation might constitute an adequate qualitative benchmark for determining exploitative abuses. Accordingly, non-compliance with privacy regulations would clearly indicate exploitative conduct.¹²³ While this approach may constitute a useful tool for the backward-looking competition assessment in unilateral and coordinated practices, it is of limited added value for the forward-looking assessment of a merger's impact on privacy. In Facebook/WhatsApp, the Commission therefore explicitly discarded such an approach, pointing out that merged entity would continue to be bound by EU data protection regulation post-merger.¹²⁴ On this basis, it concluded that competition law intervention is not warranted, as it would duplicate the role of data protection rules which would sanction the merged entity's future infringement of privacy rules.

This, however, does not mean that privacy-related consumer harm is irrelevant for merger analysis. On the contrary, it is conceivable that a merger entails a decrease in privacy protection, without necessarily violating EU data protection or US privacy rules. To capture such an increase in the privacy-price, the Commission could have 'measured' the deterioration of the level of privacy as a consequence of the matching of Facebook's and WhatsApp's user databases in qualitative terms by comparing the merging parties' potential privacy policies pre- and post-merger. A change in WhatsApp's or Facebook's privacy policies which requires consumers to disclose a higher amount of personal information for their messenger post-merger than required for the use of the identical service pre-merger, could have been interpreted as a price increase.¹²⁵ While the exact amount of the price increase would be difficult to quantify, the Commission could have differentiated between different degrees or magnitudes of price increases depending on the importance of the change in the privacy policy. To grasp the magnitude of potential consumer harm, the Commission could have run through different scenarios with regard to both the volume and the sensitivity of the additional personal data required as a consequence of the

¹²³ Bundeskartellamt/Autorité de la Concurrence (n 8) 27. This theory of harm also underpins the German Competition Authority's preliminary finding that Facebook has abused its dominant position by violating national and EU data protection rules. Bundeskartellamt, *Preliminary assessment in Facebook proceeding: Facebook's collection and use of data from third-party sources is abusive* (n 113). This approach follows the case law of the German Federal Court of Justice (*Bundesgerichtshof*) holding that contract terms which are incompatible with the laws regulating general conditions and terms of trade might amount to an abuse of a dominant market position, see in this regard *Bundesgerichtshof VBL-Gegenwert* (2013) KZR 61/11. *Bundesgerichtshof Pechstein* (2016) KZR 6/15; *Bundesgerichtshof VBL-Gegenwert II* (2017) KZR 47/14. The Bundeskartellamt suggests that this approach is also supported by the Court of Justice of the European Union *Case C-32/11 Allianz Hungária Biztosító and Others* ECLI:EU:C:2013:160 [47]. Bundeskartellamt/Autorité de la Concurrence (n 8) 23. For a discussion of this exploitative theory of harm see also Costa-Cabral and Lynskey (n 10), 30–34. Bania (n 10), 63–70.

¹²⁴ Case COMP/M.4731 Google/DoubleClick (n 27) [368]. Case COMP/M.7217 Facebook/Whatsapp (n 2) [164].

¹²⁵ For such a comparison of a dominant firm's pricing practice 'across time' is one of the methodologies used to identify exploitative abuses under Art. 102 (a) TFEU. Court of Justice of the European Union *Opinion of Advocate General Wahl in Case C-177/16 Autotiesību un komunikācijai konsultāciju aģentūra/Latvijas Autoru apvienība v Konkurences padome* ECLI:EU:C:2017:286 [19].

merger. A qualitative benchmarking of privacy-price increase, however, basically boils down to a sophisticated version of the product quality approach. As a result, even if an increase in the privacy-price was identified in qualitative terms, it would remain unclear how it should be balanced with the potential pro-competitive effects of the merger under scrutiny.

IV.2 Conjoint analysis as quantitative method

This shortcoming of qualitative approaches could be addressed by quantifying the consumer harm arising from a decrease in the merged entity's level of privacy protection in monetary terms. The 'privacy calculus' model not only provides for an economically-informed underpinning of the proposition that privacy constitutes the actual price paid by consumers for the provision of free online services. It might also serve as the appropriate analytical framework for competition authorities to quantify a potential non-monetary privacy-price increase as the consequence of a merger. Indeed, several empirical economic studies used the concept of the privacy calculus as a starting point to determine users' willingness to pay for privacy in monetary terms by means of a conjoint analysis.¹²⁶

Initially developed by the marketing literature, conjoint analyses are widely used as a methodological tool to identify how certain features of a differentiated product are valued by consumers and, thus, influence consumers' choices and willingness to pay.¹²⁷ To this end, conjoint analysis models identify and gauge the respective value of specific product attributes (the so called 'part-worths') for consumers' overall utility,¹²⁸ by measuring how changes in product attributes influence consumers' preferences and evaluative judgments.¹²⁹ Unlike other stated preference surveys, conjoint analysis relies on economic experiments in the form of choice-tasks, which confront them with 'hypothetical, but realistic choice problems' in the form of different variations or profiles of a given product (so-called 'stimuli').¹³⁰ Engaging in a reverse engineering of consumer's purchase decisions,¹³¹ conjoint analysis thus tries to mimic situations that consumers face in the market place, rather than relying on consumers' stated preferences.

¹²⁶ Hann, Hui and others (n 99), 14; Alessandro Acquisti, Leslie K John and George Loewenstein, 'What Is Privacy Worth?' (2013) 42(2) *The Journal of Legal Studies* 249 255; Thomas Hildebrand, Oliver Günther and Hanna Krasnova, 'Investigating the value of privacy on online social networks: conjoint analysis' (2009); Dinev and Hart Paul (n 98); Phelps, D'Souza and Nowak (n 99); OECD, 'Exploring the Economics of Personal Data: A Survey of Methodologies for Measuring Monetary Value' (2013) 32 <http://www.oecd-ilibrary.org/science-and-technology/exploring-the-economics-of-personal-data_5k486qtxldmq-en> accessed 13 March 2018.

¹²⁷ For the economic foundations of the conjoint analysis Paul E Green and Vithala R Rao, 'Conjoint Measurement for Quantifying Judgmental Data' (1971) 8(3) *Journal of Marketing Research* 355; Paul E Green and V. Srinivasan, 'Conjoint Analysis in Consumer Research: Issues and Outlook' (1978) 5(2) *Journal of Consumer Research* 103; Paul E Green and V. Srinivasan, 'Conjoint Analysis in Marketing: New Developments with Implications for Research and Practice' (1990) 54(4) *Journal of Marketing* 3; Daniel McFadden, 'The Choice Theory Approach to Market Research' (1986) 5(4) *Marketing Science* 275.

¹²⁸ McFadden, 'The Choice Theory Approach to Market Research' (n 127) 279; Paul E Green, Abba M Krieger and Yoram Wind, 'Thirty Years of Conjoint Analysis: Reflections and Prospects' (2001) 31(3_supplement) *Interfaces* 56; Green, Krieger and Wind (n 128), 59–60.

¹²⁹ McFadden, 'The Choice Theory Approach to Market Research' (n 127) 279. Green, Krieger and Wind (n 128), 59.

¹³⁰ McFadden, 'The Choice Theory Approach to Market Research' (n 127) 277; Stephen Hurley, 'The Use of Surveys in Competition and Merger Analysis' (2010) 7(1) *Journal of Competition Law & Economics* 45 63; Marinus Imthorn, Ron Kemp and Ivo Nobel, 'Using Conjoint Analysis in Merger Control: A competition practitioner's perspective' (2016) 7.

¹³¹ McFadden, 'The Choice Theory Approach to Market Research' (n 127) 275; Green, Krieger and Wind (n 128), 62.

Being increasingly used in competition cases to measure consumers' willingness to pay for non-price features of a specific product,¹³² I suggest here¹³³ that the conjoint analysis would provide competition authorities with an administrable methodological tool to measure and quantify the consumer harm likely to arise from the potential change in the merging parties' privacy policy.¹³⁴ To carry out such an analysis, the competition authority could organise, in a first step, as part of its market analysis a consumer survey. In so doing, it could identify the relevant price and non-price attributes and determine the different attributive levels for a given product.¹³⁵ In the Facebook/WhatsApp case, the Commission could have identified the product attributes and attributive levels for the consumer communications apps set out in Table 1.

¹³² For the relevance of the conjoint analysis in US competition law Jonathan B Baker and Daniel L Rubinfeld, 'Empirical Methods in Antitrust Litigation: Review and Critique' (1999) 1(1/2) *American Law and Economics Review* 386-386; Daniel L Rubinfeld, 'Quantitative Methods in Antitrust' [2008] *Issues in Competition Law and Policy* - ABA Section of Antitrust Law 723, 736. US Copyright Royalty Board, *Determination of Rates and Terms for Digital Performance in Sound Recording and Ephemeral Recording (WEB IV)* - Testimony of Daniel McFadden. Docket No. 14-CRB-0001-WR. For the role of conjoint analysis for EU competition law OECD, 'Economic Evidence in Merger Analysis' (2011) 183; Doris Hildebrand, 'Using Conjoint Analysis for Market Definition: Application of Modern Market Research Tools to Implement the Hypothetical Monopolist Test' (2006) 29(2) *World Competition* 315; Hurley (n 130), 62-64. Lapo Filistrucchi, Damien Geradin and Eric van Damme, 'Identifying Two-Sided Markets' (36) 2013(1) *World Competition* 33-53-54. Simon Bishop and Markus Baldauf, 'Theoretische Grundlagen und praktische Anwendung wettbewerbsökonomischer Methoden in Bezug auf die Abgrenzung des relevanten Marktes und Fragen zur praktischen Anwendbarkeit des Herfindahl-Hirschman Indexes zur Ermittlung des Konzentrationsgrades: RBB Studie' (2016) 57-65. In particular, the Dutch National Competition Authority has played a pioneering role in using conjoint analysis in merger analysis Imthorn, Kemp and Nobel (n 130). Marco Varkevisser and Frederik T Schut, 'The impact of geographic market definition on the stringency of hospital merger control in Germany and the Netherlands' (2017) 7 *Health Economics, Policy and Law* 363-375. In the context of Art. 101 (3) TFEU, the Dutch Competition authority for instance relied on conjoint analysis in order to quantify consumers' willingness to pay for production methods that enhance the animal welfare of chicken. Dutch Competition Authority (ACM), 'ACM's analysis of the sustainability arrangements concerning the 'Chicken of Tomorrow'' (2015) <<https://www.acm.nl/en/publications/publication/13789/ACMs-analysis-of-the-sustainability-arrangements-concerning-the-Chicken-of-Tomorrow/>>; Chris Fonteijn and Jarig van Sinderen, 'Economic Analysis as a Tool to Improve Decision-Making' (2015) 11(1) *Competition Law International* 61-66-67; Machiel Mulder and Sigourney Zomer, 'Dutch Consumers' Willingness to Pay for Broiler Welfare' (2017) 20(2) *Journal of Applied Animal Welfare Science* 137.

¹³³ In her recent article, Konstantina Bania interestingly suggests that 'stated preferences' studies and conjoint analysis could inform competition authorities about how consumers value privacy in the context of market definition Bania (n 10), 51-55. Focusing exclusively on the role of conjoint analysis for market definition, her proposition, however, does not set out the full potential of this methodology for the assessment of consumer harm and its advantages compared to other stated preferences methodologies, such as traditional consumer surveys. *ibid* 51-52.

¹³⁴ The literature distinguishes between five different methods of conjoint analysis, namely (i) conjoint value analysis (CVA), (ii) adaptive conjoint analysis (ACA), (iii) choice-based conjoint analysis (CBC), (iv) adaptive choice-based conjoint analysis (ACBC) and (v) menu-based conjoint analysis (MBC). Imthorn, Kemp and Nobel (n 130) 11. For illustrative purposes, the following example relies on the traditional CVA. Consumers' willingness to pay for privacy could also be assessed by means of a CBC experiment.

¹³⁵ Arguably, this exercise is already part of the competition analysis in mergers, as the competition authorities have to determine the product features and specificities for the product market definition. Case COMP/M.7217 Facebook/WhatsApp (n 2) [13] - [33].

Table 1 - Product attributes and attributive levels of consumer communications services¹³⁶

Attribute	Attributive Level
Price	<ul style="list-style-type: none"> • free (0 €) ;or • paying (1,99 €)
Network popularity	<ul style="list-style-type: none"> • 5% of friends/contacts using the same app • 25 % • 50% • more than 50%
Number of communication parties	<ul style="list-style-type: none"> • one-to-one and/or • group chats
Functionalities	<ul style="list-style-type: none"> • text • photo • voice messaging • video messaging • video chat • group chat • voice call • sharing of location and other information
Availability	<ul style="list-style-type: none"> • only on one operating system (proprietary app) • or multiple operating systems (cross-platform apps)
Platform compatibility	<ul style="list-style-type: none"> • only smartphone • all mobile devices • all electronic communication devices
Privacy	<ul style="list-style-type: none"> • no disclosure of personal information, • disclosure of a basic profile (name plus additional identifier (i.e. email address or phone number) • full profile • profile of contacts and friends (interdependent privacy)¹³⁷

In a second step, the competition authority could design different profiles (stimuli) of consumer communications apps, by bundling varying attributes¹³⁸ and attributive levels. In a third step, a

¹³⁶ Gergely Biczók and Pern H Chia, 'Interdependent Privacy: Let Me Share Your Data' in David Hutchison and others (eds), *Financial Cryptography and Data Security* (Lecture Notes in Computer Science. Springer Berlin Heidelberg 2013); Yu Pu and Jens Grossklags, 'Using Conjoint Analysis to Investigate the Value of Interdependent Privacy in Social App Adoption Scenarios: Research Paper presented at the 36th International Conference on Information Systems, Fort Worth 2015' (2015) 2 <<http://aisel.aisnet.org/icis2015/proceedings/SecurityIS/12/>> accessed 22 January 2017. For a similar approach see Bania (n 10), 52.

¹³⁷ Biczók and Chia (n 136); Pu and Grossklags (n 136) 2.

¹³⁸ Green and Srinivasan, 'Conjoint Analysis in Marketing' (n 127) 8–9.

representative¹³⁹ sample of consumers would be confronted with a limited number (ideally 12-20)¹⁴⁰ of paired choice tasks and asked to rank the product profiles according to their preferences by allocating a fixed sum of points (e.g. 100 points), across each pair of consumer communications apps so as to indicate their preferred product profile.¹⁴¹

On the basis of the overall utility ranking of different profiles by the respondents, the Commission could estimate the utility and relative importance of each attribute and attributive level for the consumers' product choices by means of multi-variable regressions.¹⁴² In order to quantify how much consumers value privacy levels of consumer communications apps and their changes in monetary terms, the competition authority weighs the utility changes in response to variations in the attributive level with the utility changes in response to changes in monetary prices. Thus, the competition authority could gauge how much consumers are willing to pay for a certain level of a non-price attribute of the product, such as privacy.

The determination of the monetary value of the non-price product characteristic of privacy by means of conjoint analysis would have provided the Commission in Facebook/WhatsApp with important information for market definition and the theory of harm alike. The conjoint analysis might have informed the definition of a 'data market' by indicating which change in the level of privacy corresponds to a small but significant and non-transitory increase in price (usually 5-10% price increase).¹⁴³ Most importantly, the conjoint analysis might have enabled the Commission to quantify the consumer harm arising from changes in WhatsApp's privacy policy. This information could have even been used in merger simulations to estimate in monetary terms how different changes in the privacy policy post-merger would affect consumer welfare.

Although the merging parties did not invoke any merger specific efficiencies, the conjoint analysis would have also enabled the Commission to balance the consumer harm arising from the decrease in privacy with pro-competitive efficiencies. In the event that the invoked efficiencies would not have been sufficient to offset the privacy- harm arising from the combination of Facebook's and WhatsApp's user database, the Commission could have either blocked the merger, or at least imposed commitments to prevent potential privacy-related consumer harm.

V. Potential objections

My proposal to quantify and balance privacy-related consumer harm by means of conjoint analysis is, however, likely to elicit a number of objections. The proposed approach might give rise to general concerns about the administrability and reliability of the conjoint analysis as a tool for merger analysis. The application of conjoint analysis to privacy, moreover, might entail specific normative and methodological issues.

V.1 Administrability and reliability

The proposal to use the conjoint analysis as a tool for merger analysis may be met by concerns about its complexity and methodological shortcomings which might affect its reliability and administrability. Arguably, the results of conjoint analysis are, like the outcomes of other survey-based methods, heavily

¹³⁹ n = ideally around 1000, the sample should represent different age and population groups and should be composed by existing and future consumer communications app users.

¹⁴⁰ Determination of Rates and Terms for Digital Performance in Sound Recording and Ephemeral Recording (WEB IV) - Testimony of Daniel McFadden (n 132) [16].

¹⁴¹ Baker and Rubinfeld (n 132), 425.

¹⁴² Pu and Grossklags (n 136) 9.

¹⁴³ For the use of conjoint analysis for market definition see Hildebrand (n 132), 327–334.

contingent upon the way the questions or choice tasks are framed. Hence, one may object that the use of conjoint analysis bears the risk of undermining the administrability and legal certainty of merger enforcement. In this respect, however, it is important to note that competition authorities on both sides of the Atlantic have gained considerable experience with complex econometric, empirical and survey-based methods in particular in the context of merger control.¹⁴⁴ The economic literature has also devised solutions to improve the design of conjoint analysis and enhance its administrability and reliability.¹⁴⁵

This might explain why willingness to pay studies and conjoint analysis have, as shown in Table 2, developed a considerable track record in competition and copyright cases.¹⁴⁶ The recurrent use of conjoint analysis merger cases suggests that conjoint analysis constitutes a workable and administrable tool which can be put into play despite the tight deadlines and time constraints competition authorities have to cope with in phase I and phase II merger reviews.

Table 2 - Use of conjoint analysis in competition-related cases¹⁴⁷

Case	Subject matter	Product	Methodology	Sample size
NMa Ziekenhuis Hilversum/Ziekenhuis Gooi-Nord (2005, case 3897)	Merger	Quality of healthcare	Conjoint value	Not reported
NMa Bloemenveiling Aalsmeer/FloraHolland (2007, case 5901)	Merger	Flower auctions (after sale services)	Choice-based	2000 growers 700 buyers
NMa (Dutch Competition Authority) Aggrifirm/Cehave (2010a, case 6781)	Merger	Artificial fertilizers	Choice-based	1600
NMa Nordic Capital/ Handicare (2010b, case 6900)	Merger	Powered wheelchairs	Choice-based	39 dealers
NMa Continental Bakeries/ A.A. ter Beek (2012, case 7321)	Merger	Rusk and breakfast cake	Choice-based	1402
ACM (Dutch Competition Authority) SENS – SNS (2015, case 15.0783.24)	Merger	Games of chance	Adaptive choice-based conjoint analysis	2000
ACM Chicken of tomorrow (2015, case 13.0195.66)	101 (1) and (3) TFEU	Broiler	Choice-based	1600

¹⁴⁴ Daniel Zimmer and Ulrich Schwalbe, *Law and Economics in European Merger Control* (Oxford University Press 2009) 202–220; Hurley (n 130).

¹⁴⁵ Abba M Krieger and Paul E Green, ‘Designing Pareto Optimal Stimuli for Multiattribute Choice Experiments’ (1991) 2(4) *Marketing Letters* 337–344; Hann, Hui and others (n 99), 22; Green, Krieger and Wind (n 128), 57; Green and Srinivasan, ‘Conjoint Analysis in Marketing’ (n 127) 8; Imthorn, Kemp and Nobel (n 130) 11.

¹⁴⁶ De la Mano, Miguel, Enrico Pesaresi and Oliver Stehman, ‘Econometric and survey evidence in the competitive assessment of the Ryanair-Aer Lingus merger’ (2007). Competition Merger Brief 3; Baker and Rubinfeld (n 132); Rubinfeld (n 132); Determination of Rates and Terms for Digital Performance in Sound Recording and Ephemeral Recording (WEB IV) - Testimony of Daniel McFadden (n 132); Dutch Competition Authority (ACM) (n 132); Hurley (n 130); Imthorn, Kemp and Nobel (n 130) 13.

¹⁴⁷ This table is based on Hurley (n 130); Imthorn, Kemp and Nobel (n 130).

UK Competition Commission Sportech/Vernons (2007)	Merger	Football pools	Adaptive choice-based	1654
US Copyright Royalty Board – WEB IV (2015)	Determination of rates and terms for digital performance in sound recordings and ephemeral recordings	Features of Music Streaming Services	Choice-based	983

With regard to potential concerns about the reliability of conjoint analysis, it is also important to point out that conjoint analysis has been specifically developed in order to address the methodological shortcomings of stated preference surveys. While stated preference surveys based on hypothetical ‘what-if questions’ are often subject to biases and likely to overstate customers’ price sensitivity,¹⁴⁸ the conjoint analysis seeks to mimic a realistic market environment by confronting participants with product choices.¹⁴⁹ The use of conjoint analysis to assess consumers’ willingness to pay for privacy would thus also allow competition authorities to account for the so-called ‘privacy paradox’.¹⁵⁰ This paradox results from the discrepancy between consumers’ stated preferences and revealed behaviour with regard to privacy. By testing consumers’ revealed behaviour rather than their stated preferences, conjoint analysis hence provides competition authorities with a more reliable tool than other survey methods to identify consumers’ willingness to pay for privacy. Of course, the design and results of the conjoint analysis must be tested and the conjoint analysis cannot be the sole element on which a merger decision is to be based.¹⁵¹ Nonetheless, it would be an important methodological tool which would complement existing merger analysis and would allow it to identify privacy-related consumer harm.

V.2 *Specific normative and methodological concerns about the application of conjoint analysis to privacy*

Beyond general concerns regarding the administrability and reliability of conjoint analysis, its specific application to privacy might, however, also give rise to normative and methodological objections. Based on normative grounds, opponents to such an approach might argue that the use of conjoint analysis, which conceptualizes privacy as price, unduly commodifies the fundamental right to data protection. Assuming the rationality of consumers’ choices, conjoint analysis also sits uneasily with insights from behavioural economics. With regard to privacy, behavioural economics point out that, far from being rational, users’ privacy decisions are often fraught by information asymmetries and cognitive biases that prevent them from assessing the actual costs of their information disclosure.¹⁵² From this perspective, relying on conjoint analysis in order to address privacy-related consumer harm through the application of competition law is simply an insufficient or wrong tool to address the market failures surrounding informational privacy and to protect the fundamental right to data protection. Better designed and

¹⁴⁸ Daniel McFadden, ‘Economic Choices’ (2001) 91(3) American Economic Review 351 364; OECD, ‘Exploring the Economics of Personal Data’ (n 126) 30.

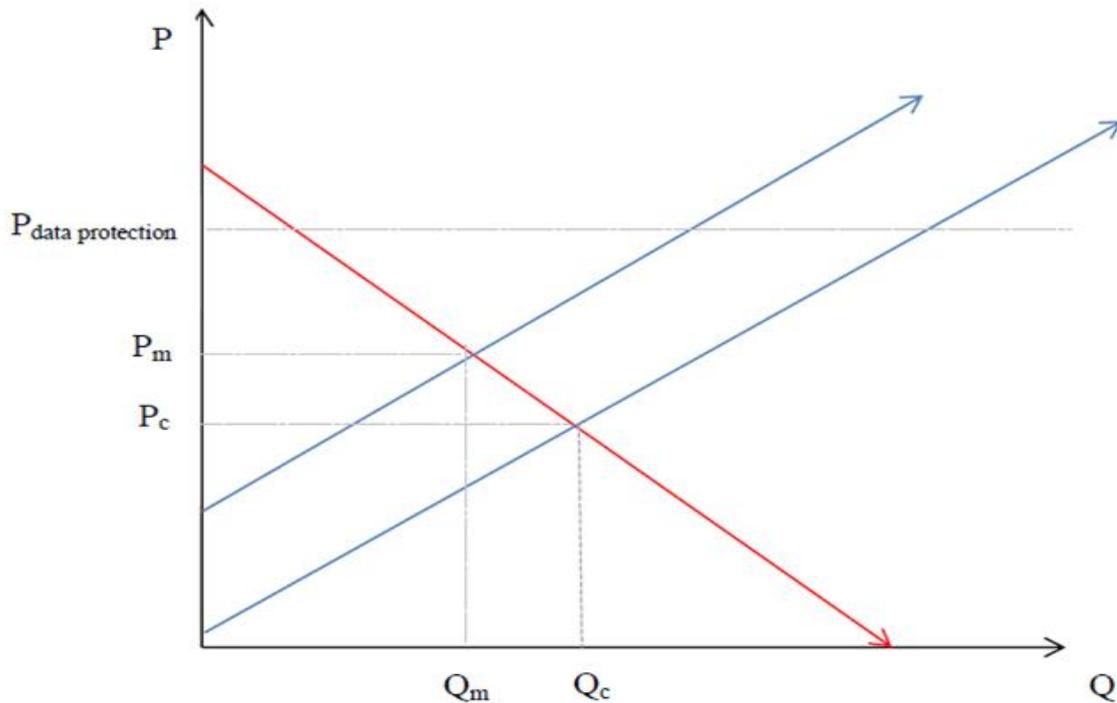
¹⁴⁹ Green, Krieger and Wind (n 128), 61; Imthorn, Kemp and Nobel (n 130) 11; Hurley (n 130), 63.

¹⁵⁰ Alessandro Acquisti, Laura Brandimarte and George Loewenstein, ‘Privacy and human behavior in the age of information’ (2015) 347(6221) Science 509 510; Alessandro Acquisti and Ralph Gross, ‘Information Revelation and Privacy in Online Social Networks’ (2005). ACM Workshop on Privacy in the Electronic Society; Wolfgang Kerber, ‘Digital markets, data, and privacy: Competition law, consumer law, and data protection’ . ZWB Joint Discussion Paper Series in Economics No. 14-2016 6; Dinev and Hart Paul (n 98), 61.

¹⁵¹ Imthorn, Kemp and Nobel (n 130) 25.

¹⁵² Acquisti, Brandimarte and Loewenstein (n 150), 510; Daniel J Solove, ‘Introduction: Privacy Self-Management and the Consent Dilemma’ (2013) 126(1881) Harvard Law Review 1883–1888.

reinforced data protection rules constitute the only way to correct these market failures and guarantee the fundamental right to data protection.



Graph 1 - The relation between privacy as a non-monetary price and data protection

These normative and methodological objections against the use of conjoint analysis as a tool to translate privacy into monetary prices thus ultimately converge in the conclusion that competition law is the wrong forum to address privacy concerns. Akin to the predominant view amongst antitrust scholars, which this study tries to refute, both positions assume that data protection regulation constitutes the better institutional alternative to protect privacy as a fundamental right, and to address market failures and cognitive biases that compromise individual privacy choices. All three potential criticisms share the common assumption that the privacy-price approach seeks to use or instrumentalize competition law in order to fix regulatory failures resulting from insufficient or dysfunctional data protection legislation.¹⁵³

This argument, however, misconceives the respective roles of competition law and data protection regulation, which remain distinct, even if competition law accounts for privacy-related consumer harm. The current debate on the role of privacy for competition analysis often simply ignores that firms can lower the level of privacy protection, and thus raise the privacy-price consumers have to pay for their services without necessarily violating data protection legislation. This is reflected in Graph 1, which shows that the rise in privacy-price (depicted as a shift from the competitive privacy-price P_c to the monopoly privacy-price P_m) does not necessarily exceed the maximum privacy-price set by data protection rules ($P_{\text{data protection}}$ in Graph 1). Indeed, data protection regulation operationalizes the fundamental right of data protection by defining a minimum level of protection beyond which the level of privacy may not be lowered. In the terminology of the ‘privacy calculus’ this minimum level of protection establishes a price cap or maximum privacy-price ($P_{\text{data protection}}$) that companies may legally impose on their customers. This minimum level of protection is in general translated into specific

¹⁵³ Manne and Sperry, ‘The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework’ (n 11); Franck (n 112), 143–144.

consumer or data protection rules, which define the legal framework within which consumers trade-off their privacy against free online services.

There is little doubt that EU competition law applies to anticompetitive practices even if they are in compliance with, for instance, consumer protection laws or sector-specific regulation.¹⁵⁴ By the same token, the proposed privacy-price approach might address consumer harm resulting from decreases in the level of privacy as a consequence of a merger or business conduct, although it does not necessarily violate privacy rules. The concept of privacy-price and its operationalization through conjoint analysis thus provides for a compelling consumer welfare argument as to why competition law should account for privacy as a non-monetary price in data-driven markets, where personal data is bartered in accordance with the conditions and below what one can call a ‘price ceiling’ ($P_{\text{data protection}}$ in Graph 1) defined by data protection regulation.

This understanding of the role of competition law in addressing privacy-related consumer harm is also in line with the EU courts’ case law. The Court of Justice and General Court unequivocally held that EU competition law, like EU primary law, applies even in sectors that are subject to sector-specific regulation.¹⁵⁵ Moreover, the EU Commission also recently stressed in *Microsoft/LinkedIn* that even though the existing¹⁵⁶ and future EU data protection frameworks¹⁵⁷ restrict the merged entity’s capacity to access and process data, competition law nonetheless applies to any anticompetitive effect that might arise from the merging firms’ lawful attempts to access or combine their datasets in compliance with data protection rules.¹⁵⁸

In my view, the assumption that any decrease in privacy protection automatically entails a violation of data protection rules constitutes the fundamental ‘privacy fallacy’ that misleads the current discussion on the role of privacy for competition law. The proposed privacy-price approach debunks the fundamental misconception which underlies the predominant view that privacy should not be accounted for under competition law analysis. It advances an economically sound argument why, and sets out how competition law should address changes in privacy protection resulting from mergers and business conduct that do not breach data protection rules. To be clear, the proposed privacy-price approach and its operationalization through conjoint analysis does not represent a panacea that will correct all market failures and behavioural biases surrounding consumers’ privacy choices; these can only be addressed by better-designed data protection regulations. Rather, it constitutes an appropriate tool to address the consumer harm that materializes within the framework that data protection establishes for non-monetary online transactions and thus updates competition law analysis for the digital era.

¹⁵⁴ See for instance Court of Justice of the EU *Case C-280/08 P Deutsche Telekom v Commission* ECLI:EU:C:2010:603 [80] - [96].

¹⁵⁵ *ibid.* General Court of the European Union *Case T-398/07 Spain v Commission* ECLI:EU:T:2012:173 [55]. The EU Court of Justice has also repeatedly clarified that the (non-)compliance with existing national or EU regulation can constitute an important reference point for the competitive analysis of certain practices *Case C-32/11 Allianz Hungária Biztosító and Others* (n 123) [46] - [47]. Court of Justice of the European Union *Case C-457/10P AstraZeneca AB and AstraZeneca plc v European Commission* ECLI:EU:C:2012:770 [74] - [75], [93]. Court of Justice of the European Union *Case C-179/16 F. Hoffmann-La Roche and Others* ECLI:EU:C:2018:25 [92] - [93].

¹⁵⁶ European Union, Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the Protection of Individuals With Regard to the Processing of Personal Data and on The Free movement of Such Data. [1995] O.J. L 281/31.

¹⁵⁷ European Union, Regulation (EU) 2016/679 of the European 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, and repealing Directive 95/46/EC, General Data Protection Regulation. [2016] OJ L 119/1.

¹⁵⁸ Case COMP/M.8124 *Microsoft/LinkedIn* (n 26) [177] - [179], [255], [375].

VI. Conclusion

The present study challenges conventional antitrust wisdom by arguing in favour of a more prominent role of privacy in merger analysis. It shows that while competition authorities increasingly account for the role of personal data as a potential source of market power and entry barriers, privacy still constitutes a major blind spot in current merger analysis. To address this analytical lacuna, the study discusses three potential privacy-related theories of harm that would enable competition authorities to integrate potential consumer harm arising from a decrease in privacy protection into their merger assessment. Whereas the literature and competition authorities have so far framed privacy harm either as deterioration of product quality or restriction of consumer choice, this study shows how the proposition that privacy constitutes the real price consumers pay for free online services can be operationalized in merger analysis.

The intuition that a decrease in privacy is tantamount to an increase of monetary prices does not only inform merger control by providing an adequate proxy for market definition in zero price online markets, but also constitutes a solid economic basis for identifying privacy-related consumer harm. Illustrating that not every decrease in privacy policy necessarily amounts to a breach of data protection rules, this study also reveals that the opposition of orthodox antitrust scholarship and competition authorities to a more important role of privacy in antitrust analysis is grounded in a ‘privacy fallacy’. This fallacy erroneously assumes that a decrease in the level of privacy protection automatically constitutes a breach of data protection rules and is therefore better sanctioned by privacy regulators.

As a major contribution, this study contends that willingness-to-pay studies in the form of conjoint analysis constitute a valuable methodological toolkit to measure privacy-related price increases that would enable merger analysis to identify consumer harm resulting from a decrease in privacy protection. The proposed privacy-price approach thus not only explains ‘whether’ but also ‘how’ privacy considerations could be integrated in merger control. It thus suggests what lessons are to be drawn from the Facebook/WhatsApp saga. Integrating privacy into the edifice of antitrust analysis is a necessary step to keep merger control abreast to the challenges of the digital economy lest consumers continue to receive messages similar to those they discovered on their cell-phones in the aftermath of the Facebook/WhatsApp merger.

