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THE DIGITAL ECONOMY – MERGERS



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LETTER FROM THE EDITOR

Dear Readers,

As the fast-moving digital economy has quickly grown, mergers in this sector have continued to increase in numbers. Antitrust regulators, private practitioners and undertakings have had to face this challenge head-on. Does traditional merger analysis remain effective under these new and constantly changing circumstances? Our February Chronicle attempts to shed light on this question.

Our Mergers in the Digital Economy Issue, part two of a three part series focusing on the Digital Economy, is heavily focused in Europe where competition authorities have been active in reviewing these transactions. Nevertheless, we open with a U.S. perspective, FTC Commissioner McSweeney & Brian O'Dea focus their article on the importance on looking at the long run and the dynamic aspects associated with these merger transactions.

At the heart of the debate on mergers in the digital economy are the consequences of Big Data and network effects. Some of the questions posed by antitrust authorities on both sides of the Atlantic include: What are some of the ways in which data's uses can be considered problematic when mergers bring together large sets of data?

We invite you to read this issue and stay tuned for our last Chronicle on Digital Markets focusing on Intellectual Property.

As always, thank you to our great panel of authors.

Sincerely,

CPI Team¹



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¹ CPI thanks CCIA for their sponsorship of this issue of the Antitrust Chronicle. Sponsoring an issue of the Chronicle entails the suggestion of a specific topic or theme for discussion in a given publication. CPI determines whether the suggestion merits a dedicated conversation, as is the case with the current issue of the Chronicle. As always, CPI takes steps to ensure that the viewpoints relevant to a balanced debate are invited to participate and that the quality of our content maintains our high standards.

SUMMARIES

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Data, Innovation, and Potential Competition in Digital Markets – Looking Beyond Short-Term Price Effects in Merger Analysis

By Terrell McSweeney & Brian O'Dea

Evaluating mergers in digital markets requires enforcers to consider a number of factors beyond short-term price effects. One crucial factor is the competitive significance of data and its potential role as a barrier to entry. Innovation and quality effects are also important to consider in digital markets, including those that may arise on the “free” side of two-sided platforms. Finally, enforcers should aggressively safeguard potential competition in digital markets, including pursuing cases under Section 2 of the Sherman Act where dominant digital firms seek to acquire companies with prospects for future entry that are “more than fanciful.”

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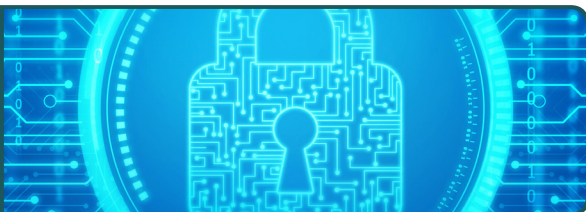


Data in EU Merger Control

By Miranda Cole

Much has been said (and written) about “big data” as a new factor in European merger review. This focus of course begs the questions: “is this new”? A number of cases over the last 20 years in which data played a crucial role. However, increasing volumes and diversity of data collected, and increasing sophistication of the analysis of such data, have led to increased scrutiny. That said, the Commission has applied a consistent approach to reviewing data as an “input” for many years. The only really new development is its consideration of whether the use of data to improve services can be anticompetitive.

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Digital Markets in EU Merger Control: Key Features and Implications

By Eleonora Ocello & Cristina Sjödin

This article identifies certain key features of digital markets and describes their implications for EU merger control, drawing on the European Commission’s merger practice in this area. The features discussed include digital markets’ fast-moving nature, two- or multi-sidedness, non-monetary-price nature, network effects, multi-homing and data accumulation issues. From a practical point of view, the Commission’s merger practice suggests that the current analytical tool-box is sufficiently flexible to deal with mergers in the digital sector. From a substantive perspective, the key features of digital markets may sometimes even prove decisive for the outcome of the Commission’s merger review in this field.

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REVOLUTION

Digital Markets and Merger Control in the EU: Evolution, not Revolution?

By Catriona Hatton, David Gabathuler & Alexandre Lichy

The emergence of new business models, technologies and even markets creates particular challenges for antitrust enforcers. Tried and tested antitrust theories and practices may no longer withstand scrutiny. Antitrust agencies may be tempted to develop novel theories of harm or seek additional powers to address real or perceived enforcement gaps. This article: (1) examines the proposal to introduce a new transaction value-based filing threshold in EU merger control to catch potentially market changing transactions that fail to meet the current turnover thresholds; (2) highlights the challenges faced by antitrust enforcers when defining markets and assessing market power in digital markets, including during merger reviews; and finally (3) concludes by discussing whether the European Commission’s substantive merger assessment is able to keep in step with the advance of the digital economy.

SUMMARIES

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Mergers in the Digital Economy: A Practitioners' Outlook on Key Merger Control Aspects of Big Data and Innovation in Digital Markets

By Falk Schöning & Christian Ritz

With M&A activity in the tech sector surging, data-related aspects of merger control are becoming more important. New size-of-transaction thresholds increase the likelihood of filing requirements and raise new questions regarding the local nexus of certain deals. Substantively, mergers of data-rich companies are likely to be reviewed regarding their impact on innovation and potential foreclosure effects. However, this should not necessarily result in more antitrust intervention. As the merger control assessment is forward-looking, authorities should carefully consider the role of data in the individual context of fast-moving tech markets, which will often be pro-competitive and resulting in efficiencies for consumers.

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Navigating the Digital Age: The European Commission's Differing Approaches to Merger Control and Abuse of Dominance in the Digital Sector

By Pola Karolczyk & Kyle Le Croy

With the digital economy come both challenges and opportunities. In the wake of the digital age, antitrust authorities must develop rules to address the increasing reliance on Big Data, the demand for constant innovation, and the shifts in the very language we use to talk about competition law. The European Commission is tackling the competition issues presented by these changes, but its approaches to the same challenges often differ in the contexts of merger control and abuse of dominance. This article analyzes the decisional practice of the European Commission in these two key areas of competition law enforcement, focusing on its differing approaches to new challenges in Big Data, innovation, and fairness.

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Dismembering Producers from Customers: The *Google/Sanofi* Joint Venture

By Rupprecht Podszun

In merger cases involving the big platform operators, the EU Commission has difficulties to analyze markets properly. The joint venture of Sanofi and Google illustrates the shifts taking place in the economy. In particular, producing companies lose the customer interface where a platform squeezes in. Traditional competition law tools do not get the gist of such cases. The integration of markets through digitalization cannot be analyzed with a narrow market definition approach. Access to data and financial means need to be seen as key for market power analysis. Data portability, a remedy the Commission relies on, is a second-best solution only.

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New Rules for Mergers in the Digital Economy in Germany

By Peter Stauber

This article presents the recent changes to German antitrust law introduced by the 9th Amendment Package to the ARC that affect mergers in the digital economy. It first details the new transaction value-based merger control threshold and discusses the challenges its application poses for practitioners. The second part focuses on the change in the notion of "relevant product market" which hitherto also encompasses the provision of services (or goods) free of charge. In the third part, the article describes the criteria for assessing dominance in the digital economy, particularly concerning multi-sided markets and networks that now have expressly been codified into law.

WHAT'S NEXT?

Our March 2018 Antitrust Chronicle will be our annual look at recent developments in **China – Year of the Dog**.

ANNOUNCEMENTS

CPI wants to hear from our subscribers. In the coming months of 2018, we will be reaching out to members of our community for your feedback and ideas. Let us know what you want (or don't want) to see, at: antitrustchronicle@competitionpolicyinternational.com.

CPI ANTITRUST CHRONICLE APRIL 2018 & MAY 2018

The April 2018 Antitrust Chronicle will address the hot topic of **Hipster Antitrust**.

Our topic for the May 2018 will focus on issues related to **Online Platforms**.

Contributions to the Antitrust Chronicle are about 2,500 – 4,000 words long. They should be lightly cited and not be written as long law-review articles with many in-depth footnotes. As with all CPI publications, articles for the CPI Antitrust Chronicle should be written clearly and with the reader always in mind.

Interested authors should send their contributions to Sam Sadden (ssadden@competitionpolicyinternational.com) with the subject line “Antitrust Chronicle,” a short bio and picture(s) of the author(s).

The CPI Editorial Team will evaluate all submissions and will publish the best papers. Authors can submit papers in any topic related to competition and regulation, however, priority will be given to articles addressing the abovementioned topic. Co-authors are always welcome.



DATA, INNOVATION, AND POTENTIAL COMPETITION IN DIGITAL MARKETS – LOOKING BEYOND SHORT- TERM PRICE EFFECTS IN MERGER ANALYSIS



BY TERRELL McSWEENY & BRIAN O'DEA¹



¹ Terrell McSweeney is a Commissioner at the U.S. Federal Trade Commission. Brian O'Dea is Attorney Advisor to Commissioner McSweeney. The views expressed in this article are those of the authors and do not necessarily reflect the views of the Federal Trade Commission or any other Commissioner.

I. INTRODUCTION

Often, it is possible to analyze the competitive effects of a merger by focusing on price and quantity. If a particular merger is likely to raise prices or reduce quantity, we can generally be reasonably confident that the merger is anticompetitive. The virtues of price and quantity are that they tend to be readily observable and to lend themselves to empirical analysis. Antitrust practitioners have a variety of tools to model price and quantity effects based on sales and diversion data.

For many digital markets, however, relying solely on traditional price-based modeling in merger analysis is likely to be ineffective. This is particularly true in two-sided markets, which involve two distinct sets of customers. Two-sided markets are nothing new. Newspapers have sought to attract both readers and advertisers for centuries. Banks have sought to attract both creditors and borrowers for millennia.

It is common in two-sided markets for users on one side to subsidize those on the other side. Digital markets are no exception. Indeed, digital products and services are often offered to customers for “free.” Examples include Internet search engines, social networks like Facebook and Twitter, booking engines such as OpenTable and Expedia, and even software such as Adobe PDF.

Modeling price effects on the “free” side of these digital markets is of little value. So how should antitrust enforcers proceed? The easiest approach would be to zero in on just the paying side of these markets in merger investigations and to treat that as a proxy for overall competition.

But such an approach would fail to capture substantial possibilities for harm to users on the “free” side of the market. Competition can be vigorous even where products or services are offered for “free.” Often that competition takes the form of innovation to provide customers with quality improvements or new products. Mergers in digital markets can threaten that competition – even in situations where users on the “paying” side of the market may be neutral or even supportive of the transactions. The U.S. antitrust agencies’ 2010 *Horizontal Merger Guidelines*’ section on innovation makes clear that enforcers should look at both sides of two-sided markets in the merger enforcement context and carefully examine the possibility for harm to innovation and quality effects in mergers involving digital markets. Enforcers should also look closely for evidence that mergers in digital markets may eliminate potential competition and pursue cases aggressively in this area, including under Section 2 of the Sherman Act where appropriate. Finally, competition enforcers should be attuned to the competitive significance of data, which may operate as a barrier to entry that may be strengthened by mergers in digital markets.

II. THE COMPETITIVE SIGNIFICANCE OF DATA

It is no secret that digital markets run on data. Data are a competitive asset. Some data are public or can be obtained from data brokers for a fairly nominal cost. But a lot of valuable data are proprietary and can operate as a barrier to entry. Some have argued that the aggregation of data is unlikely to present a competitive problem because data are non-rivalrous, meaning that their collection or use by one company does not prevent simultaneous use by another.² While it is technically true that data are non-rivalrous, that fact may in practice prove irrelevant. Data of particular competitive significance may often be difficult and costly to obtain. The firm that does obtain those data will often have little incentive to share.

An incumbent firm may have a significant advantage over entrants if it possesses a valuable database that would be difficult, costly, or time consuming for a new firm to match or replicate. In those situations, competition enforcers can and should assess the competitive implications of data.

In some cases, a particular category of data may itself constitute an appropriate relevant market. In *Dun & Bradstreet/Quality Education Data* (2010), for example, the FTC found that the merging parties “were the only significant U.S. suppliers of [K-12] educational marketing data.”³

More commonly, data may operate as a key input for the delivery of a digital product or service. The FTC treated data as an input in the market for electronic public records services for law enforcement customers in *Reed Elsevier-ChoicePoint* (2008). The parties were the largest suppliers of public records services and offered a combination of data and analytics capabilities to customers. Other firms also possessed relevant data. But the quality of those data (in terms of breadth and depth), and the analytics offered in connection with those data were insufficient to serve law enforcement customers, who demanded “the most complete database of public records” and “sophisticated search algorithms . . . that

² See, e.g. Tucker & Wellford, *Big Mistakes Regarding Big Data*, ANTITRUST SOURCE 3-4 (Dec. 2014).

³ Analysis of Agreement Containing Consent Order to Aid Public Comment, *In the Matter of The Dun & Bradstreet Corporation*, Dkt. No. 9342, at 1 (Sept. 10, 2010), <https://www.ftc.gov/sites/default/files/documents/cases/2010/09/100910dunbradstreetanal.pdf>.

identify and display non-obvious relationships between records.”⁴ The case demonstrates that even when a firm is able to replicate a substantial share of the data collected by a market leader, that might still not be enough to compete effectively.

Nielsen-Arbitron (2013) is another case in which the FTC found data to be a significant barrier to entry.⁵ Nielsen and Arbitron possessed “the most accurate and preferred sources of individual-level demographic data for [television and radio] audience measurement purposes.”⁶ The FTC determined that the proprietary data of Nielsen and Arbitron were key inputs to offering downstream cross-platform audience measurement services – services, it should be noted, which had “yet to be developed and marketed.”⁷ The evidence demonstrated that it would be difficult for other firms to replicate the data generated internally by Nielsen or Arbitron. The consent required divestiture of assets related to Arbitron’s cross-platform audience measurement business, including data from Arbitron’s representative panel.

In short, data and analytics capability can be significant barriers to entry in digital markets. What’s more, those barriers may become self-reinforcing, which presents a serious issue from a competition perspective. The leading digital incumbents collect massive quantities of proprietary data on a real-time basis and use those data continually to refine their offerings. For a new entrant, gathering “enough” data and building “enough” analytics capability to challenge an incumbent is likely to be a monumental undertaking. And that undertaking may become harder still as time goes by as network effects take hold. Moreover, increasingly sophisticated machine learning and artificial intelligence technologies that require massive data sets on which to train may raise additional barriers to entry. Roger McNamee of Elevation Partners, a private equity firm that focuses on technology markets, recently explained that once a firm reaches critical mass in a digital market, “the venture capital looks elsewhere” and that “[t]here’s no point taking on someone with a three or four years head start.”⁸ In light of these dynamics, competition enforcers should pay particularly close attention to whether a merger would enhance data-related barriers to entry – even if short-term price effects are unlikely.

III. ASSESSING INNOVATION AND QUALITY EFFECTS

While we all agree that innovation is important, there has long been a debate over the circumstances that best promote innovation. Joseph Schumpeter famously claimed that an innovator required market power to fund costly research and development.⁹ In contrast, Kenneth J. Arrow argued that competition best promotes innovation.¹⁰ Arrow observed that a monopolist has already largely maximized its earnings in a particular market. The monopolist has a limited incentive to innovate according to Arrow due to cannibalization – it will only gain from its innovation to the extent that it expands the market, whereas a firm with a smaller share stands to gain by capturing sales previously made by others.¹¹ The modern economic literature tends to suggest that most industries align more closely with Arrow’s view. As Professor Chad Syverson of the University of Chicago explained at the Federal Trade Commission’s 2016 microeconomics conference, the general pattern is that “competition tends to increase innovative activity.”¹²

4 Analysis of Agreement Containing Consent Order to Aid Public Comment, *In the Matter of Reed Elsevier and ChoicePoint*, File No. 081-0133 (Sept. 16, 2008) at 2-3, <https://www.ftc.gov/sites/default/files/documents/cases/2008/09/080916reedelseviercpanal.pdf>.

5 Analysis of Agreement Containing Consent Order to Aid Public Comment, *In the Matter of Nielsen Holdings N.V. and Arbitron Inc.*, File No. 131-0058 (Sept. 20, 2013) at 3, <https://www.ftc.gov/sites/default/files/documents/cases/2013/09/130920nielsenarbitronanalysis.pdf>.

6 Id. at 2.

7 Statement of the Fed. Trade Comm’n, *In the Matter of Nielsen Holdings N.V. and Arbitron Inc.*, File No. 131-0058, at 1 (Sept. 20, 2013), <http://www.ftc.gov/system/files/documents/cases/140228nielsenholdingstatement.pdf>.

8 McNamee, as quoted in Ip, *The Antitrust Case Against Facebook, Google, Amazon and Apple*, WALL ST. J., Jan. 16, 2018, <https://www.wsj.com/articles/the-antitrust-case-against-facebook-google-amazon-and-apple-1516121561>.

9 See SCHUMPETER, *CAPITALISM, SOCIALISM AND DEMOCRACY*, VIII (3d ed. 1950).

10 Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609 (1962), as cited in David McGowan, *Innovation, Uncertainty, and Stability in Antitrust Law*, 16 BERKELEY TECH. L.J. 729, 732 (2001).

11 Note that a monopolist would still have an incentive to innovate defensively if it anticipates that another firm could successfully innovate and displace its current market position. At the same time, depending on market characteristics, a monopolist may believe that it has sufficient time to identify innovative competitive threats and copy or coopt them before an entrant gains a substantial market presence.

12 Syverson, as quoted in McConnell, *Top Economists Debate Competition-Innovation Connection*, GLOBAL COMPETITION REV., Nov. 4, 2016, <http://globalcompetitionreview.com/article/1073077/top-economists-debate-competition-innovation-connection>.

Antitrust enforcers should and do incorporate innovation effects into our analysis, and the U.S. antitrust agencies' revised 2010 *Horizontal Merger Guidelines* include a section that specifically addresses innovation effects.¹³ Innovation in the merger context may be a non-price dimension of current competition. It may also be an important factor in assessing the prospects for future competition, particularly where a firm is planning to enter a market with a new technology.

One argument made against aggressive antitrust enforcement in digital merger cases is that competition enforcers are unlikely to be able to assess the competitive effects of a particular transaction with sufficient accuracy and across a sufficiently long time horizon to justify antitrust intervention. While digital markets are often dynamic and fast-moving, the underlying market structure in these markets can prove to be remarkably durable – particularly once a firm achieves a dominant position. The dynamic nature of a market is not, by itself, a good reason for refraining from aggressive antitrust enforcement in these markets.

Issues of both innovation and market dynamism were front and center in the U.S. DOJ's challenge to Bazaarvoice's consummated acquisition of PowerReviews, a case that involved online product review and ratings platforms. The DOJ alleged that the two companies had previously engaged in "feature driven one-upmanship," and that the transaction "significantly reduced incentives to . . . invest in innovation."¹⁴ An exhibit featured company executives commenting on how Bazaarvoice and PowerReviews had "pushed each other to innovate in ways that help[ed] consumers and retailers."¹⁵

The court in *Bazaarvoice* acknowledged that the social commerce industry was "at an early stage of development, rapidly evolving, fragmented, and subject to potential disruption by technological innovations" and that "the future composition of the industry as a whole is unpredictable."¹⁶ Judge Orrick held, however, that "while Bazaarvoice indisputably operates in a dynamic and evolving field, it did not present evidence that the evolving nature of the market itself precludes the merger's likely anticompetitive effects."¹⁷

The FTC confronted the issue of innovation in the context of two-sided markets in its review of *Zillow-Trulia*. Zillow and Trulia both operated websites and mobile apps that provided consumers with free access to residential real estate listings and information. These consumer-facing offerings made up one side of the two-sided platforms managed by Zillow and Trulia; the companies supported these free offerings by selling advertising products to real estate agents looking to reach those consumers. FTC staff conducted a thorough investigation that yielded some important conclusions. On the paying side of the platform, staff investigated whether a merged Zillow-Trulia could profitably raise advertising prices to real estate agents. The evidence, however, suggested that real estate agents use numerous methods in addition to the platforms operated by Zillow and Trulia to attract customers.¹⁸ Staff also examined whether the merger would reduce the combined entity's incentives to innovate by developing new features attractive to consumers, ultimately concluding that it would not.¹⁹ While the Commission voted unanimously to close that case, if evidence in a future case suggests that a merger is likely to result in negative quality or innovation effects, the mere fact that those effects occur on the "free" side of the market should matter little to an antitrust enforcer.

IV. SAFEGUARDING POTENTIAL COMPETITION

Enforcers should look closely for evidence that mergers in digital markets may eliminate potential or future competition. The FTC has obtained numerous divestitures over the years in pharmaceutical markets based on potential competition concerns. Notably, the concern in these instances is not that any current measurable competition between the parties will be lost – but rather, that the loss of a potential entrant could lead to less competitive outcomes in the future. As noted above, this is the approach the FTC took in *Nielsen/Arbitron*, a case in which the FTC required a divestiture of competitive assets to protect future competition in the market for cross-platform audience measurement even though the service itself was still in development.

13 See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, 2010 HORIZONTAL MERGER GUIDELINES § 6.4.

14 Complaint, *U.S. v. Bazaarvoice, Inc.*, C-13-0133 ¶¶ 8, 62 (N.D. Cal. Jan. 10, 2013), <https://www.justice.gov/atr/case-document/file/488911/download>.

15 Plaintiff United States of America's Post-Trial Proposed Findings of Fact ¶ 198, *United States v. Bazaarvoice*, No. 13-cv-00133 (N.D. Cal. Jan. 8, 2014) (filed Oct. 31, 2013), <http://www.justice.gov/atr/cases/f301400/301437.pdf>.

16 *U.S. v. Bazaarvoice*, 2014 U.S. Dist. LEXIS 3284 *34 (N.D. Cal. Jan. 8, 2014).

17 *Id.* *261.

18 See Statement of Commissioners Ohlhausen, Wright, and McSweeney Concerning Zillow, Inc. / Trulia, Inc., File No. 141-0214 (Feb. 19, 2015), https://www.ftc.gov/system/files/documents/public_statements/625671/150219zillowmko-jdw-tmstmt.pdf.

19 See *id.*

In 2015, the FTC challenged the merger between Steris and Synergy, the second and third-largest sterilization companies in the world. At the time of the merger, Steris was a leading provider of sterilization services in the United States. The Commission alleged that Synergy planned to enter the United States with a promising new x-ray sterilization technology. According to the Commission, the merger would harm future competition by terminating Synergy's entry plans, thereby depriving customers of additional competition and a promising new sterilization technology.²⁰ The district court judge denied the FTC's request for injunctive relief. There was no dispute that Synergy had engaged in considerable planning to enter the U.S. market, nor that Synergy's decision to abandon those efforts came only after the company agreed to merge with Steris. The district court disagreed with the FTC, however, that the merger played a role in Synergy's change of heart. It thus held that the FTC had failed to show that Synergy "probably would have entered the U.S. contract sterilization market . . . within a reasonable period of time" absent the merger.²¹

Several commentators have suggested that the U.S. antitrust agencies haven't been aggressive enough in blocking acquisitions by dominant firms in the digital space. Some have gone so far as to call on the FTC to "put a hold on all future mergers and acquisitions by Facebook — and potentially Google and Amazon."²²

The FTC lacks the authority to categorically ban or "put a hold on" acquisitions by individual companies. Moreover, the *Steris* case illustrates the practical limitations of potential competition doctrine under the Clayton Act from a litigation perspective. The FTC lost that case even though the potential competitor was a large, established company with over half a billion in annual revenues that had engaged in definitive planning to enter the market at issue. Quite often, acquisitions in digital markets involve start-ups that have no or negligible revenues and no concrete plans to challenge the incumbent directly.

One concern in digital markets is that a powerful incumbent will identify firms that may pose only a small risk of potentially challenging its dominant position and acquire them. Let's say a dominant digital incumbent acquires 20 firms, each with just a five percent chance of someday competing directly against it. Much of the debate in this area has to do with disagreement over how *much* of a threat the upstart must present to the current incumbent to justify blocking a merger. If the question is whether it is probable or likely that any *individual* firm would have directly challenged the incumbent, the answer is clearly no.

At the same time, if we look at the twenty acquisitions collectively, there's a roughly 64 percent chance that at least *one* of those firms would have grown to challenge the incumbent but for its acquisition. Looking at each acquisition individually under Section 7 of the Clayton Act is likely to miss the forest for the trees.

To the extent that the acquiring firm possesses monopoly power in a relevant market, that firm's acquisitions should be evaluated as potential Sherman Act Section 2 violations. In 2017, the FTC challenged Mallinckrodt ADR's acquisition of synthetic therapeutic hormone assets from Novartis under Section 2. The FTC's complaint referred to the acquisition as a "defensive move" by Mallinckrodt to "extinguish[] a nascent competitive threat to its monopoly" for a therapeutic hormone product used to treat rare but serious disorders.²³ To settle the charges, Mallinckrodt agreed to pay \$100 million and to grant a license to a third party to develop the synthetic assets.²⁴ While that case did not involve digital markets, it is a model for how the agencies should evaluate acquisitions involving dominant digital firms.

Provided the acquirer possesses monopoly power, the acquisition of a potential competitor is properly held to a considerably stricter standard under Section 2 of the Sherman Act than it would be under Section 7 of the Clayton Act. Areeda and Hovenkamp advocate for a "relatively severe approach" in this situation with a presumption of illegality:

It will commonly be difficult if not impossible to prove that a firm is a "unique" and "truly probable" potential entrant. And even if it seems clearly to be one of several firms that are "equally probable" potential entrants, it is important to preserve all those

20 Complaint, *In the Matter of Steris Corp. and Synergy Health PLC*, Dkt. No. 9365 ¶¶ 68-70 (May 29, 2015), <https://www.ftc.gov/system/files/documents/cases/150529sterissynergypart3cmpt.pdf>.

21 *FTC v. Steris Corp.*, 133 F. Supp. 3d 962, 978 (N. D. Ohio 2015).

22 Lynn & Stoller, *How to Stop Google and Facebook from Becoming Even More Powerful*, THE GUARDIAN, Nov. 2, 2017, <https://www.theguardian.com/commentisfree/2017/nov/02/facebook-google-monopoly-companies>.

23 Complaint, *In the Matter of Mallinckrodt ADR Inc.*, Civil Action No. 1:17-cv-00120 ¶¶ 1, 8 (Jan. 18, 2017), https://www.ftc.gov/system/files/documents/cases/170118mallinckrodt_complaint_public.pdf.

24 See Press Release, Fed. Trade Comm'n, Mallinckrodt Will Pay \$100 Million to Settle FTC, State Charges It Illegally Maintained its Monopoly of Specialty Drug Used to Treat Infants (Jan. 18, 2017), <https://www.ftc.gov/news-events/press-releases/2017/01/mallinckrodt-will-pay-100-million-settle-ftc-state-charges-it>.

significant possibilities of eroding the monopoly and to prevent possible reinforcement of the monopolist's position via the assets acquired. Accordingly, we would adopt a relatively severe approach to holders of significant monopoly power: the acquisition of any firm that has the economic capabilities for entry and is a more-than-fanciful possible entrant is presumptively anticompetitive, unless the acquired firm is no different in these respects from many other firms.²⁵

Several points are worth highlighting. First, “more-than-fanciful” is a low bar. Evidence that a dominant digital firm was motivated by “defensive” reasons alone might show that the competitive threat posed by the acquired firm was “more than fanciful.” Second, the acquired firm need not represent a truly unique threat to trigger condemnation; even if there are “several” firms more or less equally situated, the acquisition would still be presumed illegal. The burden would be on the incumbent to prove that there are in fact “many” firms that are indistinguishable from the acquired firm from a competitive perspective. More generally, this approach reflects a focus on preserving the *possibilities* of future competition and a concern that acquisitions by a monopolist may strengthen barriers to entry and make it more difficult for other firms to challenge the monopolist's position.

The challenge, from a litigation perspective, is to show that the dominant digital firm possesses monopoly power in some relevant market. Demonstrating “monopoly power” under U.S. case law is more art than science. Courts have generally held that a market share of 70 percent is sufficient to establish a *prima facie* case of monopoly power.²⁶ But courts have also found monopoly power for shares between 40 and 70 percent based on additional factors, such as strength of competition, entry barriers, and the ability to sustain supracompetitive profits. Entry barriers may be unusually high in digital markets given strong network effects and the self-reinforcing cycle of proprietary data aggregation and increasing analytics sophistication. Whereas the standard economic assumption is that the consolidation of power will attract new entry, statements by private equity and venture capital investors suggest that the consolidation of power in digital markets may actually chase capital away. Competition enforcers should be prepared to explain these unique features of digital markets to courts. We believe that they counsel in favor of challenging mergers in digital markets on Section 2 potential competition grounds even when the acquirer's nominal share is substantially below 70 percent, depending of course on the facts of the specific case.

Given the substantial difference between the standards applicable to a potential competition challenge under Section 7 of the Clayton Act versus Section 2 of the Sherman Act, certain problematic acquisitions may fall through the cracks. An acquirer may be dominant, but yet not quite a “monopolist” in the eyes of a court, and the prospects for future direct entry may be possible, but not quite “reasonably probable.” If courts prove reluctant to recognize the unique features of digital markets and are overly restrictive in recognizing the harm associated with the loss of potential competition, a legislative solution may be required. That solution could involve explicitly recognizing and strengthening the actual potential competition doctrine under the Clayton Act (particularly given that the Supreme Court has failed to endorse the doctrine). Or it might involve clarifying the indirect evidence necessary to establish “monopoly” power under Section 2 of the Sherman Act. Finally, the FTC could potentially examine serial defensive acquisitions by a dominant digital firm as a course of conduct under its Section 5 “unfair method of competition” authority.

There would be costs associated with a more aggressive approach towards potential competition. Acquisitions may generate efficiencies. And the ability of startups to “cash in” by selling to an incumbent may itself motivate some innovation. As Areeda & Hovenkamp explain, “if a dominant firm habitually purchases new rivals at attractive prices, investors would have an added incentive to enter.”²⁷ Some argue that it would be shortsighted and harmful to block this avenue of monetization based on uncertain forecasts of whether a particular firm might, one day, grow to challenge its acquirer.

Nonetheless, as Carl Shapiro notes in the draft of a forthcoming paper, “there would be a big payoff in terms of competition and innovation if the DOJ and FTC could selectively prevent mergers that serve to solidify the positions of leading incumbent firms, including dominant technology firms, by eliminating future challengers.”²⁸ The difficulty of identifying those mergers does not counsel against bringing *any* challenges in the face of uncertainty. Shapiro explains that “[s]ound competition policy would tolerate some false positives – blocking mergers involving targets, only to find that they do not grow to challenge the incumbent – in order to avoid some false negatives – allowing mergers that eliminate targets that

25 AREEDA & HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 701d (4th ed. 2015).

26 See ABA SECTION OF ANTITRUST LAW, ANTITRUST LAW DEVELOPMENTS 230 (8th ed. 2017).

27 AREEDA & HOVENKAMP, *supra* ¶ 701b.

28 Shapiro, “Antitrust in an Age of Populism,” (Oct. 24, 2017, forthcoming in *International Journal of Industrial Organization*), <http://faculty.haas.berkeley.edu/shapiro/antitrustpopulism.pdf>.

would indeed have grown to challenge the dominant incumbent.”²⁹ We agree and believe that such an approach is consistent with the underlying purpose of the antitrust laws. We would also note, in the context of digital markets, that the elimination of a firm that *would have* challenged a dominant incumbent is likely to be far more consequential from a competition perspective than the consumer welfare loss associated with an individual false positive.

V. CONCLUSION

Digital markets are often characterized by network effects, which can lead to barriers to entry that grow over time rather than diminishing. Close consideration of data, innovation, and potential competition are important for sound enforcement in digital markets. It is also worth thinking about other ways to reduce barriers to entry in these markets. For example, increasing consumers’ rights to and control over their data might foster competition to improve quality of services in order to retain customer data. Regulations permitting consumers to withdraw their data in a usable format when they want to use a different service may also lower barriers to entry for less data-rich innovators. While these possibilities are outside the field of antitrust, antitrust is not a panacea for ensuring competitive markets. Well-tailored regulation can work hand in hand with antitrust enforcement to foster competition and innovation.

²⁹ Id.



DATA IN EU MERGER CONTROL

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I. INTRODUCTION

Much has been said (and written) about “big data” as a new factor in European merger review. This focus of course begs the questions: “is this new”? Supermarket loyalty schemes and airline frequent flyer programs, for example, have been collecting significant amounts of data about us for many years. Weren’t there a number of cases over the last 20 years, both behavioral and transactional, in which data played a central role? In the behavioral context, we can go all the way back to *IMS Health*. That was essentially about whether rights to the 1860 brick-structure impaired the ability of others to collect and manage data in the form required by pharmacies. Not dissimilarly, almost ten years ago, *TomTom/TeleAtlas* addressed the combination of two significant sets of mapping data.

That said, some things have changed. Increasing volumes of data are being collected and analyzed by a wide range of companies (not only those active in the digital economy). The data collected and the results of data analysis are being used in new and increasing numbers of contexts. Interestingly, there are also increasing numbers of entities with access to comparable sets of some types of data (e.g. location data for smartphone users). However, the collection and use of data (even large sets of data) is not a new phenomenon. As Commissioner Vestager put it, the developments outlined above, do not suggest that we “[...] need a whole new competition rulebook...”²

Data can clearly be relevant in competition assessments, but it bears thinking about how and why. The mere collection or possession of data is not in and of itself anticompetitive. Nor are most of the uses made of data. In the merger context, the Commission’s recent cases have largely focused on whether data is monetized to fund a multi-sided platform, and, where it is, whether the acquisition of data that can be used for that purpose has the potential to be anticompetitive. In *Microsoft/LinkedIn* the analysis also looked at the potential use of data to improve an algorithm (or for “machine learning,” to use the language of the case). In other words, these assessments have largely focused on the use of the data as an “input” to one or more related markets, looking at the potential vertical effects of the acquisition of exclusive control over particular data sets.

There have, however, been a small number of cases that considered whether the combination of data sets could have anticompetitive horizontal effects. The first section below briefly considers these cases, with the remainder of the discussion focusing on the development of the approach to the potential vertical issues.

II. POTENTIAL HORIZONTAL EFFECTS

In both *TomTom/TeleAtlas* and *Nokia/Navteq*, the Commission considered potential markets for non-navigable and navigable digital map databases. Although the Commission conducted this analysis as part of its review of a vertical “stack” of markets – in which digital map databases were inputs to a potential intermediate market for navigation software and potential downstream markets for end user navigation apps and services – its analysis of the upstream digital map database markets was horizontal. This is hardly surprising, given that it was the combination of the datasets in this upstream market that was the trigger for the vertical foreclosure analysis. In *Nokia/Navteq* (the second of the two cases), the Commission assessed the horizontal overlap in the (following *TomTom/TeleAtlas*) two player market for navigable digital map databases – which, following the transaction, would be vertically integrated and competing with third parties to provide navigation services – looking at customer focus, market evolution, pricing, barriers to switching, and market entry). Ultimately, the Commission concluded that the merged company would be unlikely to pursue a strategy of closing off competitors – its ability to deny competitors access to map databases was limited by TeleAtlas. The Commission found that the merged company would lack incentives to close off supply of digital map databases to its competitors because a loss in sales of maps would not be compensated by increased sales of mobile telephones, and other mobile phone manufacturers would be able to compete with Nokia by working with independent developers of navigation apps or developing other features for their handsets.

Much more recently, in *Microsoft/LinkedIn*, the Commission assessed the impact of access to a combined data set (of information about individuals’ jobs, career history and professional connections, email and other contacts and search behavior) on the potential online advertising market.³ The Commission identified two ways in which the combination of the two relevant data sets could raise horizontal issues: (i) the combination could increase market power in a hypothetical market for the supply of data or could increase barriers to entry/expansion in that market for actual or potential competitors that need the data to operate on that data market; and (ii) even if the parties had no intention or technical ability to combine the two data sets, they could have been competing prior to the transaction on the basis of the data that they each controlled (such that the concentration would eliminate that competition). This approach was entirely consistent with the Commission’s approach to horizontal issues generally (including in the context of the analysis of intellectual property).

² Vestager, “Competition in a big data world,” DLD 16 Conference, Munich, January 17, 2016.

³ Commission Decision of December 6, 2016 in Case M.8124 – *Microsoft/LinkedIn*.

The Commission found that the transaction did not raise horizontal concerns because the parties did not (at the time) make data available to third parties for advertising purposes (such that the transaction would not limit the volume of data available to third parties for that purpose). It went on to find that there would remain large amounts of user data valuable for advertising purposes that was not under the exclusive control of Microsoft. The Commission concluded this analysis by noting that the parties were small players in the relevant market and only competed with each other to a very limited extent in the supply of online advertising inventory (and its possible segments).⁴

III. POTENTIAL VERTICAL EFFECTS

Most of the Commission's more recent data-related transactional reviews have focused on potential vertical effects that might arise from the use of the data as an input in related markets. The Commission has considered whether the data concerned cannot be replicated by rivals that and, without access to this data set, cannot compete in the related market.

A. Data as an Input

In its 2012 *UK mobile wallet* review, the Commission considered the impact of the transaction on the market for data analytics services.⁵ It characterized the data that would be collected or used by the joint venture to provide data analytics services as: (i) customer data collected by the mobile network operators (the parents of the joint venture) that was to be provided to the joint venture in anonymized form, (ii) data collected through the mobile wallet, and (iii) data collected under contracts with merchants (e.g. data collected through loyalty schemes and transactions). Having identified the types of data and the market in which it could be an "input," the Commission considered whether this particular combination of data (personal information, location data, response data, behavioral data and browsing data) would represent a "unique" data set that would become an "essential input" for targeted mobile advertising, such that other providers of mobile advertising intermediation services would be dependent on the joint venture for essential inputs or would be unable to compete. The Commission found that the data available to the joint venture would, to a large extent, also be available to a number of other entities, including Google, Apple, Facebook, card issuers, reference agencies and retailers. As the Commission noted, customers give personal data of this type to (or consent to its use by) many different entities, such that this particular type of data is generally considered to be a "commodity."⁶ It concluded that, while the broad range of data collected by the joint venture would be very valuable for its mobile data analytics and advertising services, many other strong players offered comparable data sets, such that competing providers of advertising services would not be foreclosed from an essential input.⁷

In short, in its 2012 *UK mobile wallet* analysis the Commission analyzed whether parties to a concentration would enjoy a competitive advantage in a market through a data set augmented as a result of the concentration as a result of being able to improve or target its products or services (in a manner that competitors are unable to match). In 2016, Commissioner Vestager described exactly that analytical approach when she noted that the Commission would consider "whether companies control unique data, which no one else can get hold of, and can use it to shut their rivals out of the market."⁸

The Commission has effectively been applying the following analytical framework to assess whether the ability to control "input" data impedes effective competition in a related market in which that data is used for some time:

- Is the data that is the "input" indispensable (e.g. there is no actual or potential substitute);
- Are there technical, legal or economic obstacles to sourcing comparable data from elsewhere; and
- Does exclusive access to the data set(s) reserve to the merged entity (through the ability to exclude others) the market in which the input is used.

4 Id. at paras. 179-180.

5 Commission Decision of September 4, 2012 in Case COMP/M.6314 – *Telefónica UK/Vodafone UK/Everything Everywhere/JV*.

6 Id. at para. 543.

7 Id. at para. 557.

8 Vestager, Data Ethics event on "Data as Power," Copenhagen, September 9, 2016.

As noted above, there are strong parallels between the approach to assessing the potential for data to foreclose access, and the approach to assessing the potential for the assertion of intellectual property to foreclose. The framework set out above echoes that in *Magill*.⁹ Not surprisingly, the threshold for a lack of access to data to have the ability foreclose is also very high.¹⁰

B. Implementation and Evolution of the Commission's Analytical Framework

The Commission has applied this framework over the last six years, elaborating further on certain elements.

In 2014's *Facebook/WhatsApp* decision, the Commission considered whether Facebook would acquire data that was likely to strengthen Facebook's position on the online advertising market (or any segments of it).¹¹ Specifically, it looked at whether the acquisition would give Facebook access to additional user data (generated through WhatsApp use) that would enable Facebook to better target ads shown to Facebook and Instagram users who were also WhatsApp users.

The Commission noted that, because WhatsApp did not collect user data that was valuable for advertising purposes (it essentially collected user names (or nicknames), mobile phone numbers and a certain amount of metadata), the transaction would not increase the amount of data potentially available to Facebook for targeting advertising.¹² However, it went on to consider whether, even if Facebook were to collect and use data from WhatsApp for advertising purposes, there would be a potential anticompetitive effect. It found, to the contrary – that large amounts of valuable user data (not within Facebook's exclusive control) would remain available to Facebook's competitors. It also found that there would be a sufficient number of alternative providers of online advertising services – there were a significant number of other market participants that also collected user data.¹³ As a result, the Commission concluded that the combination of the merging parties' data would not provide them with a non-replicable advantage, because competitors could obtain data and/or data analytics services in other ways (e.g. from data brokers or data analytics services providers, or by collecting and analyzing data themselves).

The Commission also followed this approach in *Verizon/Yahoo!*, looking at the data generated by users of Verizon and Yahoo!'s websites, apps and services that could be used by Verizon and Yahoo! to better target advertising on their websites and apps.¹⁴ It concluded that the combined data sets would not raise barriers to entry, not least because the parties were relatively small market participants. It went on to note that the parties' data sets were not unique.

Indeed, the market test in *Verizon/Yahoo!* suggested that the improved data capability resulting from the acquisition might enable the combined entity to better compete against its stronger rivals¹⁵ (as the Commission had also noted in its earlier *Microsoft/Yahoo!* review).¹⁶ In both of these cases, the Commission's assessment of the potential competitive effects of the data sets that the concentration would create concluded that the concentration would be pro-competitive, in that far from creating an ability to exclude, the increased scale post-transaction would create a more effective competitor.¹⁷ These two cases of course highlight the importance of market power in any input foreclosure analysis – if the entity acquiring the data lacks market power in the related markets in which the input can be used lacks both the ability and incentive to foreclose.

9 Joined Cases C-241/91 P and C-242-91 P, *RTE and ITP v. Commission* [1995] ECR I-00743.

10 See, for example, Case C-7/97, *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs und Zeitschriftenverlag GmbH & Co. KG* [1998] ECR I-07791 and Case C-418/01, *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG* [2004] ECR I-05039.

11 Commission Decision of October 3, 2014 in Case M.7217 – *Facebook/WhatsApp*.

12 Id. at para. 166.

13 Id. at paras. 188-189.

14 Commission Decision of December 21, 2016 in Case M.8180 – *Verizon/Yahoo!*.

15 Id. at para. 93.

16 Commission Decision of February 18, 2010 in Case M.5725 – *Microsoft/Yahoo! Search Business*.

17 Id. at para. 184.

Most recently, in *Microsoft/LinkedIn*, the Commission considered for the first time the potential for data to “improve” a service, specifically through developing and offering improved functionality. It considered whether Microsoft would be able to adopt an input foreclosure strategy by denying access to “LinkedIn full data”¹⁸ to competing providers of customer relationship management (“CRM”) software. In other words, it considered whether data could be used through “machine learning” to improve the merged entity’s product while foreclosing competitors from making comparable improvements by denying those competitors access to the relevant data.

The Commission initially noted that it was not clear that LinkedIn full data would be an “important input” (within the meaning of the Non-Horizontal Guidelines¹⁹) in the near future. Prior to the concentration, LinkedIn had not made its full data available to third parties for machine learning, and it was unclear whether it would have started licensing its full data absent the transaction. The Commission also stressed the potential pro-competitive effects of Microsoft using LinkedIn full data to improve its CRM software solutions (noting the possibility of new products and/or improvements to existing products).²⁰

Despite this, the Commission went on to conduct an “even if” analysis. It found that, even if LinkedIn data were to be used for machine learning in CRM, the concentration would not foreclose competing CRM providers. In particular, it concluded that the merged entity would not have the ability to implement a foreclosing strategy for a number of reasons. First, LinkedIn did not have sufficient market power in the hypothetical market for the provision of data for the purposes of machine learning in CRM software solutions. Second, European data protection rules limit Microsoft’s ability to process LinkedIn full data. Third, LinkedIn full data was not (and would not become in the relevant timeframe) an essential input for machine learning-enabled CRM functionality. At the time of the concentration, all major CRM vendors either had already started adding advanced machine learning-based functionalities to their CRM services or were planning on doing so in the near future. However, none of these offerings had been developed with or required access to LinkedIn full data. Fourth, LinkedIn full data would only be one of the many types of data available for this purpose, and there were many other possible source of data that could also be used for machine learning.²¹ As a result, the Commission concluded that it was unlikely that the use of LinkedIn full data for machine learning only in Microsoft’s CRM software would affect a “sufficiently important” proportion of Microsoft’s CRM competitors (such that there would be a significant price increase or reduction in incentives in the market to innovate).²²

IV. THE NATURE OF THE DATA ITSELF

The Commission’s consideration of the potential use of data in the markets for both online advertising and CRM software and productivity software solutions highlights a key feature of data – it can be used as an input to a range of purposes that fall into different relevant markets. It is important to identify the market(s) in which the data is used as an input, since that frames the nature and scope of the potential alternative types and sources of data (and thereby the “uniqueness” or replicability of the data). There may well be alternative sources that are comparably useful in some related markets but not in others, for example.

In this context, it is also crucial to consider whether alternative data sets must contain the same data or whether it is sufficient that the alternatives be comparable. For example, it is implicit in the Commission’s cases to date about user data collected and used by providers of consumer apps that alternative data that can be used to improve online ad targeting need only be comparable. They do not need to provide exactly the same data about exactly the same users to represent viable alternative data sets. Similarly, the market investigation in *Microsoft/LinkedIn* made it clear that the data sets available to competing CRM solution providers are comparable, in the sense that they have comparable utility in enabling software like CRM to “learn.” There are, however, some, albeit very limited, circumstances in which the actual data must be replicated. For example, in the *Reuters Instrument Codes* case, the short alphanumerical codes that identify securities and their trading locations, could not be “replicated” by anything else. Similarly, there was no alternative to the “final price” used to value credit default swaps (which are traded over the counter not on exchanges) for entities creating indices based on those prices in the *Markit/ISDA* case.

18 “LinkedIn full data” refers to all the data that LinkedIn collects, or could collect, and store about its users and their activity, such as professional details, connections, interests, posts, endorsements. See, *Microsoft/LinkedIn*, at para. 58.

19 Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ C 265, 18.10.2008, p. 6–25.

20 *Microsoft/LinkedIn*, at paras. 246–250.

21 *Id.* at paras. 257–264.

22 Indeed, LinkedIn full data appears to be relevant only for machine learning in the CRM B2B marketing and B2B Sales segments, which accounted for less than 30 percent of the entire CRM software solutions. Moreover, LinkedIn was only one of many data sources available to competing CRM software providers. See, *Id.* at paras. 275–276.

It is important that analyses of the replicability of data carefully consider these issues. For that reason, the very term “big data” is not helpful in the development of the analytical framework, since its breadth and imprecision is inconsistent with the way we need to think about data in these analyses.

V. CONCLUSION

The cases to date suggest that there is a framework for assessing both the potential horizontal and vertical issues that concentrations focused on data can raise. They also make it clear that the Commission’s approach to identifying data that cannot be “replicated” has been measured and careful, as is its review of the potential for data to foreclose market access.



DIGITAL MARKETS IN EU MERGER CONTROL: KEY FEATURES AND IMPLICATIONS

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I. INTRODUCTION

Digital markets play an increasingly important role in the economy. This also translates in increased merger activity in this area and requires merger control enforcement authorities to get acquainted with the issues specific to those markets.

Against this background, this article seeks to identify certain key features of digital markets and describe their implications for the competitive assessment of mergers in this area. To this end, the article draws on the European Commission's (the "Commission") merger practice concerning digital markets, which continues to develop as merger activity in this area intensifies.

For the purposes of this article, digital markets are defined as those markets where companies supply intangible products or services² to their customers over the internet, i.e. online. Examples include media content, advertising space, data analytics, software applications, communication services, search engines, social networks and games, which are made available to customers online.

II. KEY FEATURES OF DIGITAL MARKETS

This section examines some key features of digital markets and their implications for EU merger control. These features include: (A) fast-moving nature; (B) two- or multi-sidedness; (C) non-monetary-price nature; (D) network effects; (E) multi-homing; and (F) data accumulation issues.

The list of features is not necessarily exhaustive and, conversely, not all of these features are present in all digital markets. Moreover, the degree to which each of them is present may vary according to the market at issue and may evolve over time within a market. As shown by the Commission's merger practice, a case-by-case analysis is required, taking into account all the circumstances of each market and of the merger at issue.

For ease of reference, the following table provides an overview of the Commission's merger cases reviewed for the purposes of this article and of the key features that were recognized as present in each case.

Cases	Fast-moving nature	Two-or multi-sidedness	Non-monetary-price nature	Multi-homing	Network effects	Data accumulation
<i>M.4523 – Travelport / Worldspan</i>		Y		Y	Y	
<i>M.4731 – Google / DoubleClick</i>	Y	Y		Y	Y	Y
<i>M.5008 – Vivendi / Activision</i>	Y	Y	Y			
<i>M.5727 – Microsoft / Yahoo! Search Business</i>	Y	Y	Y	Y		Y
<i>M.6281 – Microsoft / Skype</i>	Y		Y	Y	Y	
<i>M.6314 – Telefónica UK / Vodafone UK / Everything Everywhere / JV</i>	Y	Y				Y
<i>M.6967 – BNP Paribas Fortis / Belgacom / Belgian Mobile Wallet</i>	Y	Y	Y			
<i>M.7023 – Publicis / Omnicom</i>		Y				Y
<i>M.7047 – Microsoft / Nokia</i>			Y			
<i>M.7217 – Facebook / WhatsApp</i>	Y	Y	Y	Y	Y	Y
<i>M.7866 – Activision Blizzard / King</i>			Y			
<i>M.8124 – Microsoft / LinkedIn</i>	Y	Y	Y	Y	Y	Y
<i>M.8180 – Verizon / Yahoo!</i>			Y			Y
<i>M.8251 – Bite / Tele2 / Telia Lietuva / JV</i>	Y	Y				Y

² The terms "products" and "services" are used indistinctly throughout this article.

A. Fast-Moving Nature

Many digital markets are characterized by rapid technological innovation. Existing products are continuously being enriched with new features and new products are being developed and brought to the market.

In this context, defining the relevant product market may become challenging. This is because traditional tools for market definition, such as the SSNIP test, may not be appropriate or the short innovation cycles may blur the boundaries of markets encompassing different services. For example, in *Facebook/WhatsApp* the Commission faced the question of where to draw the line between consumer communication services and social networking services. In these cases, the Commission has taken a conservative approach, leaving the exact product market definition open and assessing the merger on alternative relevant product markets.

In addition, for those digital markets which, besides being dynamic, have low barriers to entry, measuring market power may prove difficult. In particular, market shares in those markets may fluctuate frequently, sometimes even within weeks or months, certainly within a few years. The evolution of WhatsApp is a telling example. In the Commission's decision in *Microsoft/Skype*, WhatsApp was not even listed as a competitor in the market for consumer communication services, while only a few years later it became one of the leading providers in this market. This means that, in those markets, past market shares may not in all cases be truly representative of the competitive constraint exercised by a company at the time of the assessment of a merger, or in the following two/three-years (which is the time frame normally considered by the Commission to assess the likely future effects of a merger).

The lower informative value of market shares in certain digital markets was even recognized by the EU General Court in 2013, when dismissing an appeal against the Commission's clearance decision in the *Microsoft/Skype* case. In its judgment, the Court held, in what has become an oft-cited passage: "the consumer communications sector is a recent and fast-growing sector which is characterized by short innovation cycles in which large market shares may turn out to be ephemeral. In such a dynamic context, high market shares are not necessarily indicative of market power and, therefore, of lasting damage to competition which [the EU Merger Regulation] seeks to prevent."³

Of course, this does not mean that high market shares should be considered irrelevant in all mergers involving digital markets. For example, particular consideration should be given to those markets where high market shares are combined with strong network effects, which may further entrench firms' market positions (see Section D below).

B. Two- or Multi-Sidedness

Many digital products are offered to a group of customers through a digital platform. Often the platform operator supplies, through the same platform, distinct services to a second group of customers. The demands of the two customer groups are interlinked, and the platform connects them in a way that generates value for at least one of the two customer groups.⁴ The market on which the platform operates is therefore referred to as two-sided, with each customer group representing one "side" of the market. A platform can also serve more than two groups of customers and thus operate on a multi-sided market.

Depending on the way the demands of the different customer groups are interlinked, it is possible to identify two types of platforms in two- or multi-sided markets: (i) transaction platforms, whose primary objective is to offer an infrastructure where different customer groups (buyers and sellers) can directly interact with one another and conclude a transaction, and (ii) non-transaction platforms, which are not directly aimed at facilitating trading between customer groups.⁵ An example of a transaction platform is Booking.com, which allows consumers to buy hotel stays from providers of hotel services. An example of a non-transaction platform is Facebook, which offers social networking services to its members and online non-search advertising services to advertisers. The distinction between transaction and non-transaction platforms is however not always as neat as just described. Depending on the business model of its operator, a platform can also be "hybrid." For example, LinkedIn not only offers a recruiting platform where job seekers can directly interact with recruiters with a view to possibly enter into an employment contract, but also social networking services for professionals and online advertising services to advertisers.

3 Judgment of the General Court of December 11, 2013, Case T-79/12, *Cisco Systems and Messagenet v. Commission*, ECLI:EU:T:2013:635, para. 69.

4 Typically, these customers cannot obtain such value to the same extent without the platform. See Filistrucchi, Geradin & Van Damme, "Identifying Two-Sided Markets," *World Competition* 36, No. 1 (2013).

5 In both cases, however, the platform operates on the assumption that the number of customers on one side of the market affects the demand on the other side and possibly vice versa ("indirect network effects," on which see Section D below).

In this context, the identification of the relevant markets for the assessment of a merger deserves particular attention. This is because, when multi-sided platforms compete with each other, their competitive interaction does not necessarily occur with respect to the same customer group, i.e. “on the same side.” As a result, a market definition that focuses on one side only may make it very difficult, for example, to verify the degree of closeness of competition between the two platforms.

In past cases, the Commission’s approach in this respect varied depending on the type of platform at stake.

With respect to transaction platforms, the Commission has identified as a relevant market one overall transaction market, including both customer groups. For instance, in *Microsoft/LinkedIn*, the Commission defined one relevant product market for online recruiting services (on which LinkedIn was active), including both sides, job seekers and recruiters. Likewise, in *Google/DoubleClick* the Commission considered that the services provided, among others, by “ad networks” and “ad exchanges” to both publishers and advertisers were part of a single product market for intermediation in online advertising services.⁶

With respect to non-transaction platforms, the Commission has assessed on separate relevant markets the position of the merging firms in relation to the services offered to the different customer groups. For example, in *Microsoft/Yahoo! Search Business*, the Commission considered as separate product markets Internet search and online advertising services. Likewise, in *Facebook/WhatsApp*, the Commission examined separately the effects of the merger on the markets for social networking services and for online advertising services. Nonetheless, the Commission also took into account the interrelation between the two sides of Facebook’s platform and the impact of the merger in that respect. While it excluded any competition concerns resulting from an increase in the size of Facebook’s social network, it still looked at possible effects on Facebook’s position in the advertising market in the event that Facebook would use WhatsApp data for advertising purposes.

C. Non-Monetary-Price Nature

In many digital markets, products and services are offered to customers free of charge. In some cases, the fact that digital products and services are offered for free is linked to their being part of two- or multi-sided markets. Typically, digital platforms (transaction or non-transaction based) charge a price to one customer group, while offering the product free of charge to the other customer group (that is more price sensitive). For example, consumers who use the social network Facebook or the travel platform Booking.com are offered services for free by the platform.

However, not all digital products and services that are supplied free of charge are part of two-sided markets. Also in one-sided markets firms can choose to offer their products for free. For example, a firm can choose to do so in order to generate a critical mass of users by relying on the network effects existing in the market (see Section D below) or on the low marginal costs of distribution. Moreover, the firm may plan to monetize its product through other means at a later stage, thus eventually becoming two-sided. For instance, certain consumer communications apps that are offered for free, such as WhatsApp, which initially operated on a one-sided market, then started monetizing their product by introducing commercial messaging.

The fact that some digital services are offered free of charge has several implications for merger control, both in terms of jurisdiction and of substantive assessment.

As regards jurisdiction, the EU Merger Regulation relies on turnover thresholds to identify mergers subject to review by the Commission. Therefore, transactions where one of the merging parties only offers free products and thus has limited or no revenues may escape the Commission’s jurisdiction⁷ despite their potentially relevant impact on competition in the EU. This was the case, for example, of the *Travelport/Worldspan*, *Google/DoubleClick*, *Facebook/Instagram*, *Google/Waze* and *Facebook/WhatsApp* mergers. Some of these cases were eventually reviewed by the Commission thanks to the referral mechanisms laid down in the EU Merger Regulation.⁸ For instance, the *Travelport/Worldspan*, *Google/DoubleClick* and *Facebook/WhatsApp* mergers were referred to the Commission on request of the notifying party. Another example in

⁶ In *Travelport/Worldspan*, the Commission also identified one product market for global distribution systems (“GDS”), i.e. platforms through which travel agents (“TA”) obtain information and make reservations with travel service providers (“TSPs”), and TSPs distribute their travel content to TAs and ultimately to end-consumers. However, in that decision the Commission found that the geographic scope of the two sides of the GDS market was different and it assessed the impact of the transaction on each side separately.

⁷ It follows from the thresholds set out in Article 1(2) and 1(3) of the Merger Regulation that a transaction involving two parties, one of which generates less than EUR 100 million in the EU, will automatically fall outside the Commission’s jurisdiction.

⁸ Those mechanisms allow the notifying party or the national competition authorities of the EU Member States to request that a merger that does not meet the EU thresholds but is notifiable at the national level be referred to the Commission, provided certain conditions are met. In particular, the transaction must be notifiable in at least three EU Member States.

point is the recent *Apple/Shazam* merger. While the merger was notifiable in Austria and not at EU level, the Austrian competition authority requested a referral of the case to the Commission. The request was subsequently joined by France, Iceland, Italy, Norway, Spain and Sweden. Having regard to the arguments put forward by those seven countries, the Commission has decided to accept the referral request and to examine the transaction.

As regards the substantive assessment, adjustments to the traditional merger control analytical toolkit may be required with respect to mergers involving markets where the services are offered for free. In the past, the question had arisen as to whether a market could be identified in the absence of a monetary payment for a product or a service. The Commission's practice in this regard is clear, as follows from the *Microsoft/Skype* and *Facebook/WhatsApp* decisions. The fact that products or services are offered for free is not considered an obstacle to defining a relevant product market for antitrust purposes.

Once the relevant market has been defined, two further questions are particularly relevant for the assessment of mergers in markets where services are offered for free.

A first issue concerns how to measure market power in the absence of sales revenues and hence of value-based market shares. This is because in many digital markets there is no consolidated industry practice for measuring market performance in terms of volume. In *Facebook/WhatsApp*, during the pre-notification phase, the Commission consulted third-party market participants in search of possible volume-based metrics to measure the competitive importance of providers of consumer communications services. However, the Commission ultimately found that all proposed metrics (e.g. number of downloads, number of messages sent/received, time spent on the app) were either flawed or not sufficiently meaningful. As a result, "reach" data proposed by Facebook, which measure the penetration rate of an app among users (i.e. the percentage of paneled users who have used a certain consumer communications app over 30 days), were considered to be the best available metric in that case, despite some shortcomings. However, in other cases, different metrics may be considered relevant, depending on the products at issue and on the theory of harm. For example, in *Microsoft/LinkedIn*, the Commission considered market shares based on website traffic on desktop computers to be an acceptable metric to measure the position of providers of professional social networking services. In that case, the analysis focused on conglomerate effects premised on Microsoft's leveraging of its strong market position in operating systems and productivity software for PCs. Thus, market shares measuring the strength of professional social networks on the basis of desktop traffic seemed to be appropriate.

A second issue concerns identifying the parameters on which firms compete, which becomes particularly important in markets where services are not offered against a monetary payment (commonly referred to as "zero-price" markets). Indeed, if price is not a relevant parameter of competition, the possible consumer harm caused by a merger cannot be assessed in terms of price increase. Consumer harm, thus, has to be assessed in terms of deterioration of quality, which is a multifaceted factor with several dimensions (for instance, ease of use, reliability, privacy, etc.) that are not all relevant in the same way and vary from case to case. For example, in *Facebook/WhatsApp* the Commission identified, among others, perceived trendiness and "coolness" as relevant parameters of competition for consumer communication services.

In many of those "zero-price" markets that are part of two-sided markets, the customers that do not pay a monetary price can actually be seen as paying "with their data." Indeed, customers authorize the platform to collect and use the personal data that they provide when subscribing to the service or that they generate when using the service. Accordingly, data can be seen as a new type of "currency" in digital industries. In such markets, the degree of privacy afforded by the platform (i.e. the type of data protection policy in place) may thus become a relevant parameter of competition. However, whether that is the case depends on whether privacy is an important factor in customers' decision to choose a product in that market. Such an assessment should be carried out on a case-by-case basis, considering the actual dynamics of competition and customers' preferences in the market at stake. For example, in *Facebook/WhatsApp*, in 2014, the Commission found that, while an increasing number of users valued privacy and security, at that time the majority of consumer communications apps (e.g. Facebook Messenger, Skype, WeChat, Line, etc.) did not (mainly) compete on privacy features. When reviewing *Microsoft/LinkedIn* in 2016, the Commission found that privacy was an important parameter of competition among professional social networks, in particular in certain EU Member States, such as Germany.

D. Network Effects

Network effects are another common feature of digital markets. In markets prone to network effects, the higher the number of users of a product or service (i.e. the larger the size of the "network"), the larger the benefits this brings to its users. Many digital markets are characterized by network effects because they are based on the interaction of users (or of different groups of users) through a platform.

Network effects can be either direct or indirect. Direct network effects arise when the increase in the number of users of a product benefits the *same* group of users. An example in point are professional social networks: the more professionals that are hosted on a given network, the more valuable the network is to its members and the more attractive it becomes to non-members. Indirect network effects occur when the increase in the number of users benefits a *different* group of users. This is typical of two-sided markets such as advertising intermediation, where an ad network becomes more valuable to advertisers as the number of publishers increases (and vice versa).

The existence of network effects on a market can come into play in various ways in the competition law assessment of mergers.

First, network effects are taken into account in the analysis of the pre-existing characteristics of the market on which the merger takes place, which affect the competitive pressure, the ease of entry and expansion on that market. Depending on the case, network effects can be considered a pro-competitive factor, for example if they fuel competitive pressure among firms to gain new customers and increase the size of their respective networks. Conversely, in markets where there are already established players with large customer bases that benefit from network effects, such effects can act as a barrier that makes it more difficult for new firms to enter⁹ or for fringe players to expand. For example, the Commission assessed network effects as a barrier to entry and expansion in relation to consumer communications services in *Facebook/WhatsApp*.¹⁰

Second, network effects can play a crucial role in the assessment of the merger-specific effects on competition in the market concerned. The question here is whether the pre-existing network effects are likely to be amplified as a result of the merger, and whether that is likely to increase the size of the merged entity's network and thus its market power in such a way as to cause competitive harm. In some cases, following the merger, the merged entity's network may grow up to a point where the market "tips" in favor of that network and it ends up dominating the market, while rivals and new entrants are no longer able to compete effectively. This outcome is also often referred to as "winner takes all" effect.

Both horizontal and non-horizontal mergers may lead to competitive harm through the strengthening of network effects.

In horizontal mergers, where the merging parties are both active on the market that is characterized by network effects, the strengthening of network effects may derive from the combination of the parties' respective customer bases into one larger network. A larger network may in turn attract more users, in a positive feedback loop, ultimately increasing the merged entity's market power. However, in markets where users interact through a platform, a combination of customer bases also typically requires some form of integration between the networks of the two platforms (unless interoperability exists between the two). This was the case in *Facebook/WhatsApp*. The Commission examined whether the merged entity would be likely to introduce cross-platform communication between Facebook Messenger and WhatsApp, enabling their respective user bases to communicate with each other and thereby potentially strengthening the pre-existing network effects.¹¹

In non-horizontal mergers, the strengthening of network effects on a market may be triggered, in particular, by a foreclosure strategy of the merged entity. Following such foreclosure strategy, the merged entity may engage in a conduct on market A to strengthen its position on market B (which is upstream, downstream, or neighboring, to market A). If the foreclosure strategy is successful on market B and this market is prone to network effects, such effects may "kick in" and further exacerbate the impact of the foreclosure strategy, leading the market to "tip" in favor of the merged entity's network.

The Commission examined such a scenario in *Google/DoubleClick* in relation to the use of DoubleClick's position in the market for ad serving tools to foreclose ad intermediation networks competing with Google AdSense. According to third-party complainants, the merged entity would be able, through a number of foreclosure strategies, to attract additional publishers or advertisers to its AdSense intermediation platform and, because of the indirect network effects, reach a critical size while denying the necessary scale to competing platforms. However, the Commission ultimately dismissed those concerns.¹²

⁹ See Commission's Guidelines on the assessment of horizontal mergers, para. 72.

¹⁰ However, a number of factors were found to mitigate the negative impact of network effects, such as the dynamic nature of the market, the low "traditional" barriers to entry, the ease of distribution, the low customer switching costs, the prevalence of multi-homing and the absence of user lock-in mechanisms.

¹¹ The Commission noted that, even if some integration between the two consumer communications services were to take place post-merger, a significant overlap existed between their respective user bases. As a result, the addition of WhatsApp's user base would not lead to a significant increase of Facebook Messenger's network, and the network effects would not be substantially strengthened by the merger.

¹² See Section E below.

In *Microsoft/LinkedIn*, the Commission reached a different conclusion in relation to the possible leveraging of Microsoft's market power in operating systems and productivity software to the market for professional social networks, where LinkedIn was active. The Commission found that, post-merger, certain practices that the merged entity would be likely to engage in could potentially lead to a meaningful growth in the number of LinkedIn members and in user engagement on LinkedIn. Network effects would likely amplify such growth. Over time, more users would be tempted to join and to generate activity on LinkedIn, while competing professional social networks existing in some EU Member States would face the opposite trend. This pattern could continue up to a point where, eventually, the market would "tip" in favor of LinkedIn's network and LinkedIn's already strong position would become entrenched.¹³ The Commission ultimately approved the merger only subject to the remedies offered by Microsoft.¹⁴

E. Multi-Homing

Some digital markets are characterized by multi-sourcing by customers, or rather "multi-homing." This means that customers tend to use multiple digital services of the same type (e.g. multiple consumer communication services) over a given reference period (usually, a day or a month).

Several factors may influence customers' choice to multi-home. In markets characterized by network effects, one of the main benefits of multi-homing for customers is the ability to "reach" a larger number of other customers, whether on the same market or, in the case of multi-sided markets with indirect network effects, on another side of the market. Other driving factors behind multi-homing may include the customers' willingness to experience differentiated services (e.g. if services offer different features) and, in general, customers' preferences. At the same time, the costs of multi-homing are often relatively limited, either because the products are offered for free (see Section C above) or because of the limited effort required to adopt them and start using them. However, in many markets, despite the low costs, multi-homing may be limited due to customers' inertia, i.e. their tendency to use "default" digital products. Also, multi-homing trends may vary over time, depending on various factors, including the strength of the platform's market position and the size of its network.

In digital markets where multi-homing is prevalent and effective, it is likely to play an important role in the assessment of the effects of a merger, particularly if the market is prone to network effects. Indeed, multi-homing can be seen as a source of countervailing buyer power if it allows customers to counter the increase in market power that a merger would otherwise likely create.

In particular, if multi-homing is sufficiently significant, effective and long-lasting, it may mitigate the negative impact of network effects arising from a merger. For example, in *Facebook/WhatsApp*, extensive multi-homing (by 80-90 percent of EEA users at the time of the decision) was one of the factors supporting the Commission's finding that network effects would be unlikely to prevent entry or expansion into the market for consumer communications services. Conversely, in *Microsoft/LinkedIn*, multi-homing in relation to professional social networks was not found to be sufficiently widespread and, importantly, it was not likely to remain an effective constraint post-merger, as a result of the potential foreclosure strategy of the merged entity.

However, in the case of multi-sided markets with indirect network effects, substantial multi-homing may not be sufficient to offset anticompetitive effects, if it is limited to one side of the market. In particular, if a platform faces multi-homing on one side and single-homing on the other, this may create a "bottleneck" effect. Because the platform has exclusive access to the customers that single-home, it is able to exercise market power towards those customers on the other side who want to reach the single-homers. The Commission examined such a scenario in *Travelport/Worldspan*, which concerned the market for electronic distribution services through a global distribution system ("GDS"), where both parties were active. In that case, the customers on one side of a GDS platform (travel agencies, "TAs") used single-homing, while the customers on the other side (travel service providers, "TSPs") tended to multi-home. As a result, each GDS platform enjoyed a certain degree of monopoly power in relation to TSPs that needed to reach TAs exclusively connected to that GDS. Because of such "asymmetric" multi-homing, post-merger, access to a larger base of TAs could potentially harm competition by strengthening the merged entity's market power *vis-à-vis* TSPs on the other side of the market. The Commission ultimately considered those concerns unfounded.

¹³ In addition, LinkedIn was also active on the market for online recruiting services, which is characterized by indirect network effects between job seekers and recruiters. The Commission found that, as a result, the growth of LinkedIn's user base (which is also made of job-seekers) would likely also attract additional LinkedIn customers on the other side of the market, i.e. recruiters, thus potentially also affecting competing providers of online recruitment services.

¹⁴ The remedies offered by Microsoft included a set of commitments aimed at: (i) ensuring that PC manufacturers and distributors would be free not to install LinkedIn on Windows and allowing users to remove LinkedIn from Windows should PC manufacturers and distributors decide to preinstall it; (ii) allowing competing providers of professional social networking services to maintain current levels of interoperability with Microsoft's Office suite of products through the so-called Office add-in program and Office application programming interfaces; and (iii) granting competing professional social network service providers access to "Microsoft Graph," a gateway for software developers.

F. Data Accumulation Issues

In many digital markets, platforms collect data from their users to build large datasets (so-called “big data”), which enable them to improve their services (e.g. better targeted online advertising) or even to develop new services. As such, data increasingly constitute a valuable asset in digital markets.

The Commission, however, has not yet defined a relevant product market for data in the digital sector, as the parties to the mergers it investigated were not selling access to their dataset to third parties, nor were they expected to offer such access in the near future absent the merger.

Yet, the Commission has in several cases examined so called “big data” issues, i.e. issues related to the aggregation, under a common ownership, of large sets of data. In those cases, the data were an input to supply services in a market where both merging parties were (or could potentially become) active (typically, online advertising). However, in the Commission’s assessment, those data issues were assessed as “horizontal” effects in the market for online advertising, rather than “vertical” effects. This is because, as mentioned, they arose in situations where the data was used captively and there was no indication (or allegation) that it would be offered to third parties absent the merger.¹⁵

The Commission’s decision in *Microsoft/LinkedIn* is a recent illustration of the framework applied by the Commission to examine data aggregation issues in digital mergers. In that case, both Microsoft and LinkedIn used data that they collected from their respective users to provide online advertising services. In its decision, the Commission distinguished between two situations.

The first situation arises where the aggregation of the merging parties’ datasets is not possible. This can be due to practical, technical, contractual or regulatory factors, such as data protection laws, which limit the merging parties’ ability to access and process the data of each other’s users. In such a situation, even though no data aggregation occurs post-merger, competition concerns may arise if, pre-transaction, the merging companies were competing with each other on a given market (e.g. online advertising) on the basis of their respective datasets: this head-to-head competition would be eliminated by the merger. In *Microsoft/LinkedIn*, the Commission dismissed this theory of harm on the ground that the merging parties were small players in online advertising.

The second situation is where, instead, data aggregation would be possible. In this scenario, competition concerns may arise if the data aggregation strengthens the market power of the merged entity in the market for the supply of services for which the data is a valuable asset. Competition concerns may also arise if the data aggregation increases barriers to entry/expansion for actual or potential competitors, who may need this data to supply their services. In *Microsoft/LinkedIn*, the Commission also excluded concerns on this point given that, irrespective of data aggregation, a large amount of user data valuable for advertising purposes would remain available to third parties after the merger. Assessing the consequences of potential data aggregation can also be relevant in cases where, pre-merger, the parties were not competing with each other on the market for which data is an asset, as the *Facebook/WhatsApp* decision demonstrates. In that case, WhatsApp, unlike Facebook, was not active in online advertising and did not even collect user data valuable for advertising. The Commission nevertheless assessed (and eventually dismissed) possible anticompetitive effects in online advertising in the event that Facebook would start collecting data from WhatsApp users to strengthen its position in online advertising.

III. CONCLUSION

Digital markets exhibit specific features that pose new interesting challenges on merger control enforcement authorities. However, the Commission’s merger practice in the digital sector suggests that the current analytical tool-box is sufficiently flexible to deal with mergers in this sector.

Of the digital mergers reviewed by the Commission,¹⁶ the majority was examined and cleared in Phase I. Three mergers led to the opening of a Phase II investigation, but were eventually cleared.¹⁷ No merger was prohibited. Only one case led to Commission intervention in the form of remedies, namely *Microsoft/LinkedIn*.

¹⁵ In fact, a vertical input foreclosure theory requires that, post-merger, the merged entity would restrict access to products that it would have otherwise supplied absent the merger. See Commission’s Guidelines on the assessment of non-horizontal mergers, para. 31.

¹⁶ Based on the definition of “digital markets” retained for the purposes of this article and on the list of cases reviewed on this basis. See Section I above.

¹⁷ Those are *Travelport/Worldspan*, *Google/DoubleClick* and *Telefónica UK/Vodafone UK/Everything Everywhere/JV*. See table in Section I above for references.

In *Microsoft/LinkedIn*, the existence of network effects in the market for professional social networking services was a crucial factor underpinning the Commission's concerns at the end of Phase I (i.e. "serious doubts"). In the case of other mergers involving digital markets, large market shares were not considered sufficient on their own to warrant the Commission's intervention, in light of factors such as those markets' fast-moving nature and the prevalence of multi-homing. Needless to say, for each merger, a case-by-case assessment of each market at the relevant point in time remains necessary. However, these cases confirm that the "key features" of digital markets identified in this article may play an important role in the competitive assessment of digital mergers. In fact, those key features may sometimes even prove decisive for the outcome of the Commission's merger review in the field of digital markets.



**DIGITAL MARKETS AND MERGER CONTROL IN THE
EU: EVOLUTION, NOT REVOLUTION?**

REVOLUTION



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I. INTRODUCTION

The digital economy is bringing about transformative change across swathes of industry through the roll-out of innovative ecosystems, including on-line platforms and the spread of new technologies and tools such as advanced machine learning, artificial intelligence and data analytics. Change is often driven by disruptive innovation with firms competing to lay claim to new markets rather than taking on existing rivals for incremental market share gains. The rapid expansion of the digital economy also has major repercussions for the established industrial order with companies finding their existing business models threatened by the rise of new technology. Accenture has estimated that 75 percent of companies that were listed in Standard & Poor's 500 Index in 2012 would not be expected to be in business by 2027 (based on the lifespan trends of firms in the Index) due in part to rapid technological change.²

The emergence of new business models, technologies and even markets creates particular challenges for antitrust enforcers, including when reviewing mergers. Tried and tested antitrust theories and practices may no longer withstand scrutiny in fast moving digital markets. Antitrust agencies may be tempted to develop novel theories of harm or seek additional powers to address real or perceived enforcement gaps. This article: (1) examines the proposal to introduce a new transaction value-based filing threshold in EU merger control to catch potentially market changing transactions that fail to meet the current turnover thresholds; (2) highlights the challenges faced by antitrust enforcers when defining markets and assessing market power in digital markets, including during merger reviews; and finally (3) concludes by discussing whether the European Commission's ("Commission") substantive merger assessment is able to keep in step with the advance of the digital economy.

II. PROPOSED EU TRANSACTION VALUE-BASED FILING THRESHOLD

Jurisdiction under the EU Merger Regulation³ is dependent on merging parties meeting high turnover thresholds.⁴ Transactions that meet the thresholds benefit from a "one-stop-shop" review by the Commission, generally replacing the jurisdiction of the 28 EU Member States. Conversely, transactions which do not meet the EU thresholds can still fall within the scope of one or more EU Member States' national merger control rules. In addition, there is a sophisticated referral system in place to ensure that the best placed authority(ies) is responsible for reviewing a merger within the EU.⁵

The rationale behind EU revenue based thresholds is that very high turnover can be an indicator of the economic effect of a transaction on the Internal Market.⁶ Therefore, it is considered relevant as a jurisdictional test to determine whether the merger should be notified to the Commission to assess whether it may cause a significant impediment to effective competition ("SIEC") within the EU (which is the substantive test applied by the Commission when reviewing a notified transaction).

Generally, this system has been working well, not least of all because it is relatively straightforward to assess whether a filing is required. However, the advent of the digital economy has led enforcers to question the adequacy of turnover-based thresholds to catch certain mergers, particularly in fast-changing digital sectors.

² The average lifespan of S&P 500 companies in 1958 was 60 years on average; by 1980 it had fallen to about 25 years and by 2012 was under 20 years. Accenture, *Thriving on disruption* by Nunes, Bellin & Lee, 2016, Figure 1.

³ Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings ("EU Merger Regulation").

⁴ Concentrations in the EU must be notified to, and cleared by, the Commission if they have a "Community Dimension." This is the case if the parties' combined revenues exceed certain thresholds: EUR 5 billion worldwide and EUR 250 million for at least each of two in the EU (secondary lower thresholds lay out alternative revenue-based conditions).

⁵ This referral system allows Member States to request the Commission to review a transaction in their place (for example, where it concerns EU wide or global markets with potential issues across multiple Member States), and vice versa, where the transaction concerns more local markets, the Member State may request the Commission to refer the merger back for local review. Furthermore, the notifying party on a deal which does not meet EU thresholds, but which triggers filings in at least three EU Member States may request the Commission to take jurisdiction instead of the national authorities.

⁶ Commission Staff Working Document accompanying the Document Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, *Report on Competition Policy 2016*, page 17.

A. The Digital Sector is Characterized by a Certain Degree of Disconnection Between Value, Valuation, and Revenue

The digital economy has at least two distinguishing characteristics from many other industries, which impacts on the relevance of turnover-based filing thresholds, namely the specificity of business models in the sector and the value of certain assets that cannot be directly monetized.

First, it is common for companies in digital markets to provide services for “free” in order to gain scale, at least until they build a strong user base and are in a position to monetize their product(s) or service(s). Many then try to build a business model generating substantial revenues based on these assets, but even digital companies that have been established for a long time sometimes fail to achieve this goal (e.g. Twitter⁷).

Second, low revenue streams do not mean that an undertaking is not valuable (or valued). Certain companies’ valuations bear no correlation with the revenue generated by their business. They may have a high growth potential (creating expectations surrounding future revenue) or there may be synergies between the target and the acquirer’s activities (for instance a service that fails to generate revenues alone could do so once integrated within a broader ecosystem).⁸

There have already been many notable mergers in the digital sector that met the high revenue thresholds of the EU Merger Regulation and were notified to the Commission, including the acquisition by Microsoft of LinkedIn in 2016 for \$26 billion and of Skype for \$8.5 billion in 2011 and Google’s acquisition of DoubleClick for \$3.1 billion in 2007. However, the acquisition of WhatsApp by Facebook for \$22 billion in 2014, notwithstanding its high profile, fell short of the notification thresholds. WhatsApp’s revenue was a mere \$10.2 million in 2013 despite it having more than 600 million users, many of them in Europe.

B. It Remains Uncertain Whether There is an Enforcement Gap

The observation that turnover thresholds are not always a key test for determining the significance of a transaction led to several reforms and reform attempts. In 2017, driven in part by the objective of capturing more transactions in the digital economy, both Germany and Austria amended their notification rules to include a threshold based on transaction value. It captures certain transactions where the target company has no revenues in those countries provided the target meets the somewhat vague concept of “significant domestic activity.”⁹ The Commission, after conducting a public consultation in 2016,¹⁰ is considering introducing a similar threshold as a solution to what it views as a risk of under-enforcement. This proposal must be analyzed in the light of the following factors.

First, the actual extent of the alleged under-enforcement remains uncertain. In general, high revenue figures, in the EU and worldwide, are often a good initial indicator of the potential for a transaction to produce effects within the Internal Market. The explanatory memorandum accompanying the German law amending the thresholds estimated that the reformed thresholds would cause no more than three additional cases to be examined per year,¹¹ although practitioners expressed concerns that the new thresholds risked capturing numerous transactions with little or no domestic effects. While it is still very early to assess the merits of either prediction, the German and the Austrian competition authority have indicated that they have already received a number of filings based on the new transaction value-based threshold since the new rules were implemented.¹² As the EU transaction value-based thresholds would likely be higher than the German and Austrian ones, and would undoubtedly be combined with some additional requirement to attempt to ensure a local nexus with the EU, it is difficult to assess the possible impact of any such amendment of the EU Merger Regulation. However, there is a real risk that any expansion of the thresholds which moves away from EU revenue requirements will result in over enforcement. In its public consultation, the Commission lists only two instances where a significant transaction did not meet existing thresholds and where it considered that the transaction might raise competition concerns at the

7 Twitter, in spite of its 330 million “monthly active users,” has never had a profitable year since its inception in 2006. See Reuters, “Twitter says it could turn first-ever profit, shares surge,” October 26, 2017, [\(link\)](#).

8 Acquisition prices may be further driven up by the large cash reserves owned by potential acquirers in the industry. See The Economist, “Tech firms hoard huge cash piles,” June 3, 2017, [\(link\)](#).

9 For Germany, see the 9th amendment to the Act Against Restraints of Competition (“ARC”), published in the Official Journal on June 8, 2017 [\(link\)](#). For Austria, see the amendment to the Law on Competition, published in the Official Journal on April 24, 2017 [\(link\)](#). See also article by Schöning & Ritz “Mergers in the Digital Economy: A Practitioners’ Outlook on Key Merger Control Aspects of Big Data and Innovation in the Digital Markets,” in The Chronicle, *Competition Policy International*, February 2018.

10 Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, launched on October 7, 2016 [\(link\)](#).

11 Proposal for a 9th amendment to the ARC, October 14, 2016, page 42 [\(link\)](#).

12 See PaRR, “German and Austrian agencies witness merger filings under new thresholds,” January 26, 2018, [\(link\)](#).

EU level.¹³ These cases, one of which (*Facebook/WhatsApp*) came back to the Commission for review in any event, and the other of which was reviewed at the national level, do not by themselves, make the case for reform.

Second, mechanisms that make the notification system more flexible already exist, which might further limit the added value of the proposed reform. In particular, parties to a transaction meeting the notification thresholds in at least three Member States may ask for a review of the transaction by the Commission.¹⁴ In addition, Member States may request the Commission to review a transaction which falls below EU thresholds but has cross-border effects within the EU.¹⁵ These correction mechanisms allow the Commission to review cases that do not fall within EU thresholds, which is significant considering that some Member States have notification thresholds that are not solely based on turnover. The *Facebook/WhatsApp*¹⁶ merger was reviewed by the Commission (and cleared) under the referral procedure made at the request of the merging parties. Recently, the proposed acquisition of Shazam by Apple has been referred to the Commission for review at the request of the Austrian authority (several other Member States joined the request). This system, however, requires the parties or a national authority to take the initiative and ask the Commission to review the merger, which may somewhat temper the mechanism's usefulness and reliability from the Commission's perspective.

Finally, designing effective transaction value-based thresholds comes with at least two practical problems. First, the thresholds must apply in a predictable manner. The complexity of deal structures (involving assets with a fluctuating value for instance) can create uncertainty with regard to the obligation to notify – for competition authorities and companies alike. Predictability might be further reduced by the need to assess whether a transaction affects the European market (i.e. local nexus), as deal value alone does not provide this information. Concepts such as “significant domestic activity” of the target, introduced in the new German and Austrian thresholds, are not straightforward to apply in practice. The German and Austrian competition authorities are currently working on a guidance document regarding these two questions and will launch a publication consultation in March 2018.¹⁷ Second, deal value-based thresholds must arguably integrate mechanisms to prevent parties from trying to negotiate their way around a notification obligation if they are to be seen by competition authorities as effective. At least hypothetically, parties could settle for deal values under the thresholds in order to avoid a filing requirement, whether or not the transaction might produce an effect on the Internal Market.

The Commission is yet to adopt a final position regarding the desirability of introducing transaction value-based filing thresholds. It is possible that the Commission will assess the effectiveness of the recent German and Austrian reforms before taking a formal position on the question. Overall, this debate should not obscure the fact that notification thresholds as they stand, combined with the referral mechanism, give the Commission the opportunity to assess the existence of a SIEC for the vast majority of mergers that are likely to produce potential anti-competitive effects within the Internal Market, including those between companies in digital markets.

III. MARKET DEFINITION AND MARKET POWER IN DIGITAL MARKETS

An exacting market definition exercise is normally a critical first step in identifying the competitive constraints upon parties to a merger. The EU merger control process requires notifying parties to identify the relevant markets and furnish the Commission with extensive information on “affected markets.” The merger decisions often describe the Commission's findings on the definition of the relevant market(s) in quite some detail.

The Commission has tended to identify markets narrowly with product functionality and quantitative pricing tests often central to the market definition analysis. Price-based quantitative modeling techniques raise particular difficulties in digital markets due to the prevalence of multi-sided platforms with users often receiving many services at zero prices. This limits the applicability of the hypothetical monopolist (“SSNIP”) test¹⁸ that seeks to gage the substitutability of different products and services based on small movements in price. The SSNIP test also fails to take into account the pricing interdependencies that exist in multi-sided markets or the importance of other elements of competition such as

¹³ Facebook's acquisition of WhatsApp in 2014 and Abbvie's acquisition of Pharmacyclis in 2015.

¹⁴ See Article 4(5) of the EU Merger Regulation.

¹⁵ See Article 22(1) of the EU Merger Regulation.

¹⁶ Case No. COMP/M.7217 - *Facebook/WhatsApp*, decision of October 3, 2014.

¹⁷ See PaRR, *supra* note 12.

¹⁸ Small but Significant and Non-transitory Increase in Price test.

quality.¹⁹ Some commentators have suggested adapting the SSNIP test to account for indirect network effects that arise in two-sided (non-transaction) markets.²⁰

An important issue when assessing the competitive impact of mergers involving multi-sided platforms is correctly determining whether the platform's activities as a whole can be characterized as a stand-alone market (i.e. normally those which facilitate transactions between users on each side of the platform) or whether it is more accurate to identify one or more distinct markets on each side of the platform.²¹ Such an analysis can be complex and depends on the market dynamics in play. A platform provider may be subject to entirely different competitive constraints on one side of the platform (e.g. competition from "one-sided" firms that only compete on that particular side and not only from two-sided providers) which would not be accounted for if the market were defined to encompass the platform as a whole. The Commission's practice with regard to digital platform mergers has generally been to identify separate markets on each side of the platform. For example in *Facebook/WhatsApp*, the Commission analyzed individual markets relating to users separately from the social network provider's online advertising activity.^{22, 23}

Typically, the Commission has placed significant reliance on static economic indicators such as market shares, concentration levels, profit margins, etc., to assess market power. However, in markets which are subject to rapid change, such indicators are generally too rudimentary – even assuming accurate data on the relevant metric is available in the first place. In *Microsoft/Skype*, the Commission acknowledged that in nascent and dynamic sectors, market shares can change quickly within a short period of time and only provide a preliminary indication of the competitive situation.²⁴ The General Court agreed with this approach and stated that in a fast-growing sector, "large market shares may turn out to be ephemeral."²⁵

There is also considerable complexity in the assessment of market power in the digital arena due to the presence of network effects that can lead to exponential growth (and decline) and, in specific circumstances, to the creation of high barriers to entry. However, the interdependencies that exist between the different sides of a platform are also often undervalued when assessing the platform's market power. A platform provider's market behavior on one side of the platform may be constrained by competition existing on the other side. It may, therefore, be inappropriate to take into account only competition on one side of a digital platform when assessing market power. Moreover, users may also make use of a number of platforms in parallel ("multi-homing"), which can further constrain a platform provider's ability to exercise market power.

Competition authorities may, therefore, need to focus their analysis on a wider set of economic indicators such as network effects, entry barriers (market contestability), innovation, etc., if they are to properly assess market power in digital markets. It is noteworthy that the German competition rules have been expressly amended to require the assessment of market power in multi-sided markets or markets characterized by network effects to take into account specific factors, namely: (i) direct and indirect network effects; (ii) multi-homing behavior and switching costs; (iii) advantages of scale arising from network effects; (iv) ability to access competitively relevant data; and (v) innovation-driven competitive constraints.²⁶

19 Competition authorities have also occasionally made use of the upward pricing pressure ("UPP") test to estimate the risk of anti-competitive (unilateral) effects arising from a merger. Such a test can be applied to multi-sided platforms and as such do away with the need to make use of more traditional quantitative modeling techniques to determine the contours of competition, but extensive data is typically required to perform a UPP test.

20 See Filistrucchi, Geradin & van Damme, (2012), "Identifying two-sided markets," (TILEC Discussion Paper, Vol. 2012-008), footnote 7. In non-transaction markets, the platform does not facilitate transactions between the two-sides (e.g. a media platform with readers and advertisers).

21 Graef, (2015), "Stretching EU competition law tools for search engines and social networks," *Internet Policy Review* 4(3).

22 Case No. COMP/M.7217 - *Facebook/WhatsApp*, decision of October 3, 2014.

23 In its *Just Eat and Hungryhouse* merger decision (Report, November 16, 2017), the UK's Competition and Markets Authority concluded that the relevant market was the (overall) market for online food platforms, including food ordering market places and the services of ordering and logistics specialists.

24 Case No. COMP/M.6281 - *Microsoft/Skype*, decision of October 7, 2011, paras. 78 and 99.

25 Judgment of December 11, 2013, *Cisco Systems v. Commission*, T-79/12, EU:T:2013:635, para. 69.

26 Section 18(3a) ARC.

IV. IS THE COMMISSION'S SUBSTANTIVE MERGER ASSESSMENT ABLE TO KEEP IN STEP WITH THE ADVANCE OF THE DIGITAL ECONOMY?

The EU Merger Regulation has proven to be a robust and flexible tool of competition law enforcement and the introduction of the “SIEC” test in 2004 is seen to have eliminated an important enforcement gap by giving the Commission the power to more readily address oligopolistic market structures, such as those that can occur in the mobile sector.²⁷ It should therefore be able to deal with entrenched (consumer) welfare threatening monopolies or oligopolies that emerge from the digital sector just as well as those that emerge from more traditional industries.

The ability of the current competition law rulebook, including the EU Merger Regulation to satisfactorily address possible anti-competitive conduct of tech companies has its detractors. In an opinion piece titled “Competition authorities need a digital upgrade,” the FT argued that “competition regulators need to arm themselves with new concepts” arguing that the regulators treated the *Facebook/WhatsApp* merger as an advertising company buying a telecommunications company – not as a social network deepening its customer data set.²⁸

The Director-General for Competition, Johannes Laitenberger has defended the EU competition law framework, emphasizing that it has been “remarkably adaptable, precisely because it is drafted in terms that allow us to address new phenomena.” He cited the Commission’s review of Microsoft’s acquisition of LinkedIn as evidence of such adaptability.²⁹

The *Microsoft/LinkedIn* decision, while it did arguably move the needle in its assessment of the impact of big data in mergers, can probably be characterized as evolution rather than revolution since it builds on the Commission’s already extensive experience of reviewing mergers in digital markets, including those involving search engines, online advertising, communications apps and social networks.

In *Google/DoubleClick* (2008),³⁰ the Commission’s analysis focused on possible foreclosure effects arising from the merger since the parties were not direct competitors in the relatively new area of ad serving technology and intermediation services for online advertisements. None of the competition analysis could be seen as departing from the standard Commission framework. This is unsurprising given that this was the first significant merger where the Commission had to assess non-horizontal competition effects following the adoption of its Non-horizontal merger guidelines.³¹ Data and privacy issues did feature, but any possible competition concerns arising from a potential combination of Google and DoubleClick’s data collections were swiftly dismissed by the Commission due to contractual restrictions in DoubleClick’s contracts with advertisers and the apparent lack of competitive advantage arising from the combination.³²

The *Microsoft/Yahoo! Search Business* (2010)³³ merger decision was the first merger decision involving two major search engines. The Commission carried out a detailed market investigation notwithstanding that Microsoft and Yahoo!’s combined market share in Internet search in the EU remained below 10 percent and consequently did not give rise to any affected markets in the EU. The Commission’s analysis arguably remained firmly anchored in established theories of harm with their focus – in internet search – on the possible loss of innovation, potential lowering in quality of organic search (i.e. degrading results) and a reduction in choice arising from the loss of the Yahoo! platform. However, the merger gave the Commission the opportunity to deepen its understanding of specific features of internet search engines (e.g. auction system).³⁴

27 The first Commission “gap case” was Case No. COMP/M.4748 - *T-Mobile/Orange Netherlands*, decision of August 20, 2007.

28 “Competition authorities need a digital upgrade,” Financial Times, July 30, 2017.

29 “EU competition law in innovation and digital markets: fairness and consumer welfare perspective,” Johannes Laitenberger Director-General for Competition, Commission, Brussels, October 10, 2017.

30 Case No. COMP/M.4731 - *Google/Double Click*, decision of March 11, 2008.

31 “Google/DoubleClick: The first test of the Commission’s non-horizontal merger guidelines,” Brockhoff, et al., Competition Policy Newsletter, No. 2 - 2008, page 53.

32 See Case No. COMP/M.4731 - *Google/Double Click*, decision of March 11, 2008, paras. 359-366.

33 Case No. COMP/M.5727 - *Microsoft/Yahoo! Search Business*, decision of February 18, 2010.

34 See “Economic background of the Microsoft/Yahoo! case,” Amelio & Magos, Competition Policy Newsletter, No. 2 - 2010, page 49.

In *Facebook/WhatsApp* (2014), the Commission revisited the market for consumer communications services;³⁵ a market that had featured heavily in the Commission's *Microsoft/Skype*³⁶ decision (and in the decision of the General Court following the appeal by Cisco).³⁷ The Commission again found that the market for consumer communications apps is dynamic and fast-growing with "no significant 'traditional' barriers ... to enter the market."³⁸ However, the Commission focused much more on the possible impact of network effects. It found, among other things, that the low barriers to entry, the prevalence of multi-homing and switching and the lack of lock-in were important factors preventing harmful network effects from taking hold post-merger.³⁹ The Commission also examined potential theories of harm related to the merged entity's possible use of a broader data collection to strengthen Facebook's position in online advertising. The Commission principally rejected concerns that the merged entity would enjoy such a form of competitive advantage on the grounds that numerous alternative providers would continue to compete with Facebook post-merger. Interestingly, the Commission's decision touches upon some aspects of privacy as part of the competition assessment notwithstanding that the decision stresses the relevance of the EU data protection rules to address privacy issues.⁴⁰

The implications of big data for competition policy played a particularly prominent role in the assessment of the *Microsoft/LinkedIn*⁴¹ merger and the decision provides an initial indication of how competition authorities are likely to address big data aspects of mergers. The Commission again highlighted the specific function of the data protection rules, and in particular the protections offered by the new EU General Data Protection Regulation ("GDPR").⁴² While the Commission identified a number of concerns arising from the proposed merger, which were addressed through commitments,⁴³ the decision also discussed the potential competition law concerns that could arise from the combination of competing (big) datasets notwithstanding that such elements were not present in the *Microsoft/LinkedIn* merger. The Commission indicated that the combination of two datasets could increase post-merger the parties' market power in the supply of the relevant data or could raise barriers to entry for actual or potential competitors. A combination of two datasets could also lead to a direct loss of competition even if there were no intention or possibility to combine the datasets. In addition, the Commission considered the (theoretical) possibility that the merged entity could engage in input foreclosure by denying access to an important input, namely access to LinkedIn (full) data to certain competitors (i.e. competing providers of CRM software solutions and separately competing providers of productivity software solutions). The Commission carried out a classic input foreclosure analysis and found that LinkedIn's data could not be characterized as an "important input" within the meaning of the Non-horizontal merger guidelines.⁴⁴

The advent of big data is often cited as a potential crossroads for competition law enforcement and some commentators have questioned whether competition authorities need a digital upgrade. While the traditional approaches to defining markets and assessing market power and competition are not all well suited to these new emerging and fast moving markets, so far the EU merger framework has proven sufficiently adaptable to address novel competition issues arising in these markets. The existing framework allows the Commission to take into account the distinctive features of digital technology, such as big data on a case-by-case basis. An overhaul of the rules with sector specific focus would not seem appropriate or warranted and could result in overly interventionist enforcement, which may harm competition and innovation and ultimately consumers.

35 The Commission also examined possible competition concerns in the broad potential market for social networking services, but it did not identify any particular competition concerns, largely because the services are differentiated and WhatsApp and Facebook were not close competitors.

36 Case No. COMP/M.6281 - *Microsoft/Skype*, decision of October 7, 2011.

37 Judgment of December 11, 2013, *Cisco Systems v. Commission*, T-79/12, EU:T:2013:635

38 Case No. COMP/M.7217 - *Facebook/WhatsApp*, paras. 117 and 118.

39 The Commission also indicated that the technical integration of WhatsApp and Facebook was unlikely to be technically straightforward, but highlighted that there was already significant overlap between the two platforms.

40 For example, the decision indicates that abandoning end-to-end encryption could create dissatisfaction among the increasing number of users who significantly value privacy and security. This suggests that companies' privacy policies could be a non-price parameter of competition. See Case No. COMP/M.7217 - *Facebook/WhatsApp*, paras. 174 and 186.

41 Case No. COMP/M.8124 - *Microsoft/LinkedIn*, decision of December 6, 2016.

42 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.

43 The commitments were not directly related to the potential competition concerns arising from a big data set. Instead, they address concerns relating to the integration of LinkedIn features into Microsoft Office as well as the denial of access to APIs and the pre-installation of LinkedIn on Windows PCs.

44 For a discussion of the case, see "Microsoft/LinkedIn: big data and conglomerate effects in tech markets," Ocello & Sjödin, Competition merger brief 1/2017 - Article 1.

MERGERS IN THE DIGITAL ECONOMY: A PRACTITIONERS' OUTLOOK ON KEY MERGER CONTROL ASPECTS OF BIG DATA AND INNOVATION IN DIGITAL MARKETS



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I. INTRODUCTION

“Data-driven markets can lead to a ‘winner takes all’ result where concentration is a likely outcome of market success.”²

The impact of antitrust laws on the Digital Economy and especially merger control in digital markets is a frequently discussed theme in recent years. It will feature even more prominently in the antitrust enforcement of major antitrust authorities around the globe in the coming years. Several years ago, online businesses started disrupting the traditional economy. Now antitrust laws and regulations have become a disruptive force in the world of tech.

M&A activity in the technology sector has become an increasingly important driver of global M&A activity. The 2015 OECD report on “Data-Driven Innovation: Big Data for Growth and Well-Being” found that the number of M&A deals in data-related sectors has increased rapidly from 55 deals in 2008 to almost 164 deals in 2012.³ Particularly in the last two years, the technology sector has become a major driver of global M&A activity. According to The Boston Consulting Group’s 2017 M&A Report, deals involving technology targets totaled more than \$ 700 billion in 2016 and represented nearly 30 per cent of all M&A activity. Acquirers from both inside and outside the tech industry seek to expand their technology and digital capabilities.⁴

As this trend is expected to rise to new heights, with tech further increasing its share of global M&A activity, antitrust authorities will continue to get involved, especially in data heavy mergers where data privacy, consumer protection and innovation are at stake. Although this is a global phenomenon, the EU Commission and the German Federal Cartel Office are currently seen as important drivers at the forefront of antitrust enforcement in digital markets.

II. PROCEDURAL ASPECTS

Digital markets and specifically Big Data raise key questions as to the procedural aspects of merger control, as the mere accumulation of large sets of data does not always generate revenues which are sufficient to meet the relevant merger notification thresholds. In digital markets, revenue and profit often only come years after the start-up phase. The focus for a new player is to have a broad user-base to create network effects. To achieve this, many companies temporarily or permanently offer their services and products free of charge or only charge certain groups of users, especially on two-sided markets. Advertising revenues on a social network or a communication platform are typical examples. Therefore, a company may already have a dominant share of users and have secured a strategic market position while still not making significant, or any, revenue.

From a procedural aspect, this phenomenon recently resulted in the introduction of new thresholds by some European antitrust authorities in order to be able to effectively review mergers of data related companies. This development was in particular fueled by the *Facebook/Whatsapp* merger, that, despite a purchase price of around \$19 billion, was not subject to notification at the EU Commission level and could only be reviewed by the Commission via a submission, since Whatsapp’s annual revenue did not exceed the relevant EUMR thresholds.⁵

In the past, the thresholds determining merger control filing requirements were mainly based on the annual revenue, the value of assets or sometimes the market shares of the parties. This principle proved inapt when dealing with mergers where a company’s value does not result from its revenue, but rather from its potential importance in the markets.

In reaction to this, the Commission has carried out a public consultation on a reform of the EU merger control regime in 2016, specifically addressing the effectiveness of turnover-based thresholds in digital industries. Some Member States have already moved beyond and introduced new transaction-value-based thresholds in order to close the potential gap in merger control.

2 See OECD, Data-driven Innovation for Growth and Well-being, Interim Synthesis Report, October 2014.

3 See OECD, Data-Driven Innovation: Big Data for Growth and Well-Being, October 2015, http://www.oecd-ilibrary.org/science-and-technology/data-driven-innovation_9789264229358-en.

4 See The Boston Consulting Group’s 2017 M&A Report, The Technology Takeover, <https://www.bcg.com/de-de/publications/2017/corporate-development-finance-technology-digital-2017-m-and-a-report-technology-takeover.aspx>.

5 See COM, Decision of October 3, 2014, COMP/M.7217 – *Facebook/Whatsapp*, paras. 9 et seq. (http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf).

Germany was the first to act, having made mergers subject to notification if the value of the consideration for the merger is more than € 400 million, one party generates revenues of € 25 million in Germany, and the target company has a significant domestic activity. The new consideration-based threshold has raised significant interest globally, and has already been followed by other jurisdictions, such as Austria where a similar threshold with a consideration value of € 200 million was introduced in November 2017.

New thresholds of the kind used in Germany and Austria detach merger control from mere revenue numbers and add the value of consideration as an alternative criterion. The idea of taking the transaction's consideration into account is not a novelty of the current development, but has already been used in U.S. merger control since its introduction in 1976, where the so called *size-of-transaction-test* is applied.

The German approach differs from the U.S. principle in that it does not look at the entire size of the transaction, but only at the concrete value of the consideration itself, for the sake of simplicity.⁶

As mentioned above, the change in legislation was particularly fueled by recent mergers in the digital economy. The new threshold can also affect other markets and areas, where a company's important strategic position may not be reflected in its turnover. Examples are technology driven markets as well as biotech and life sciences, especially the pharmaceutical industry. In these markets, success and revenue can depend on substantial upfront investments for research and development. Where a company or start-up is focused on the development of a particular new technology or product and has pioneered this, it might already play an important role in the competition in the market, while its revenue will not be of any significance before the release of the product.

Merger control thresholds which are based on the size of the transaction or the consideration paid for the target face one practical problem: the effects-based approach of international law requires a sufficient connection between the merger and the jurisdiction that seeks to review it under its national competition law, the so called *local nexus*.

In 2017 the International Competition Network recommended the following with a view to size-of-transaction thresholds:

Jurisdictions may supplement their material nexus thresholds with additional, ancillary thresholds, but those thresholds alone should not be sufficient to trigger a merger notification requirement in the absence of a material nexus to the reviewing jurisdiction. Examples of such additional and cumulative screens include thresholds based on the worldwide activities of the parties or the value of the transaction.⁷

The local nexus requirement does not rule out the introduction of new transaction-size tests for the digital economy, but it is yet to be seen how this vague legal term will be interpreted in the authorities' practice. For instance, in the new German merger control law a domestic activity is already applicable "if offers by the company are used by domestic users,"⁸ regardless of whether these offers aim specifically at domestic users. As regards digital markets in particular, the German and Austrian legislative explanations refer to the peculiarities of the individual branch and give examples such as the Monthly Active Users ("MAU"), i.e. unique visitors that are considered as reliable key figures for determining significant activity.⁹

6 See Explanatory Memorandum of the 9th Amendment of the German Act Against Restraints of Competition ("ARC"), p. 73 (in German: <https://dip21.bundestag.de/dip21/btd/18/102/1810207.pdf>).

7 See ICN Recommended Practices for Merger Notification and Review Procedures, June 5, 2017, <http://www.internationalcompetitionnetwork.org/library.aspx?search=&group=4&type=0&workshop=0>.

8 See Explanatory Memorandum of the 9th Amendment of the ARC, p. 75.

9 See Explanatory Memorandum of the 9th Amendment of the ARC, p. 75; Explanatory Memorandum of the Amendment of the Austrian Antitrust Act, p. 3 (in German: https://www.parlament.gv.at/PAKT/VHG/XXV/I/I_01522/fname_618926.pdf).

III. SUBSTANTIVE ASPECTS

The substantive merger control test for digital markets is the same as for any other market: the agencies have to assess whether the transaction results in substantial lessening of competition (in the U.S.) or significantly impedes effective competition (in the EU). However, in making this assessment, competition authorities have started identifying new theories of harm deriving from the peculiarities of the digital economy.¹⁰

From a horizontal perspective, one of the most crucial tests concerns the merger's impact on innovation. The importance of innovation as a substantive aspect that competition law seeks to protect and guarantee has increased over the last years.¹¹ This is particularly important in digital economy mergers, where fast moving market changes and revolutionary products and disruptive business models are the characteristics and driving factors of the industry.¹²

Transactions can impact innovation through many different means. An obvious example would be if the merger entailed the termination of new pipeline products and services or if innovative R&D labs were closed down in its wake. In most cases, acquirers don't have a commercial incentive to stifle innovation. Rather, a strong market player is more likely to consider purchasing a potential competitor in its early stages in order to eliminate future competition and preserve its own dominant position. A merger in the digital sector can also increase market dominance through a concentration of data and can result in restrictions of access to data. Whether or not this constitutes a restriction of competition depends on the amount and the quality of the data that the target company holds, as well as how easy the access to that specific data is, whether data is available from alternative sources and the extent of its role for competition on the relevant market.

Although a key feature of data is that it is non-exclusive and reproducible, this does not hold true for structured sets of data, e.g. data contained in relational databases regarding customer data and preferences. The more voluminous and complex this structured data is, the harder it is for competitors to reproduce it. Through a merger, the new entity might combine sets of data which were previously separate, thus creating a powerful asset that could put it ahead of the competition. Where the combination of data is unique and the information extracted from it is impossible for competitors to reproduce, this may even build barriers for market entry, resulting in foreclosure effects.

Foreclosure effects may also occur from a vertical perspective if the transaction enables the merged entity to restrict or deny companies on upstream or downstream markets access to the data.¹³ In their joint paper on Big Data and Competition, the French and German competition authorities also raised the concern that parties to a merger might use their up- or downstream access to users to gather data which they could then use to boost their position in the vertically connected market.¹⁴

Whether the merger in fact leads to foreclosure effects depends significantly on the nature of the data in question and the peculiarities of the market. While the indispensability of data depends on the respective relevant market, the question of whether data can be accessed by alternative means can only be answered by taking the competitor's (or in a vertical scenario the customer's) perspective. There is a correlation between the extent of a competitor's market share and its ability to collect data; competitors are more likely to be able to collect data themselves if they have a higher market share. Data may alternatively be acquired from third parties although third party data may not be as precise or as valuable or might simply be restricted.¹⁵ In general, this potential defense becomes less reliable the more complex and complete the data acquired by the merger is. It will be key for companies and advisors to closely examine the situation on the market and the significance of data, and to gather reliable information ideally from neutral third parties prior to notifying a merger to a competition agency.

10 See, e.g. French Autorité de la concurrence and German FCO: Competition Law and Data (2016), p. 16, 17 http://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf?__blob=publicationFile&v=2; COM, Decision of May 14, 2008, COMP/M.4854 – *TomTom/TeleAtlas*; COM, Decision of February 18, 2010, COMP/M.5727 – *Microsoft/Yahoo! Search Business*; COM, Decision of March 11, 2011, COMP/M.4731 – *Google/DoubleClick*; COM, Decision of January 9, 2014, COMP/M.7023 – *Publicis/Omnicom*; COM, Decision of October 3, 2014, COMP/M.7217 – *Facebook/Whatsapp*.

11 See European Commission, Competition policy brief "EU merger control and innovation," of April 2016.

12 See German Monopolies Commission, Special Report No. 68, paras. 16-19.

13 See German FCO, Big Data und Wettbewerb (2017), p. 10 (in German: http://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Schriftenreihe_Digitales/Schriftenreihe_Digitales_1.pdf?__blob=publicationFile&v=3).

14 See Autorité de la concurrence and FCO: Competition Law and Data (2016), p. 16.

15 See German FCO, Big Data und Wettbewerb (2017), p. 7.

Big Data and competition law cannot be discussed without taking into account the importance of data protection regulations. While ensuring privacy in the digital economy is not the task of competition law, but lies within the ambit of data protection law and its respective authorities, some competition authorities like the German FCO have considered theories of harm that also concern data protection issues. The FCO held that the excessive collection of user data by a dominant undertaking, if based on users' consent to general terms and conditions which do not comply with privacy laws, is potentially abusive conduct.¹⁶ In our view, it would be difficult to apply this theory of harm in a merger situation as it would confuse the forward-looking merger assessment with the conduct-specific assessment of competition law. Even if a party comes into a strong market position due to a merger there is no presumption of illegal behavior and privacy-breaches in the future. Moreover, at least for the majority of mergers which are reviewed in Phase I, it would be challenging for antitrust authorities to coordinate their assessment with the subject-matter experts from the data privacy authorities. Lastly, Big Data does not always relate to the individual data of consumers or business partners. In the years to come in particular the Internet-of-Things applications will most likely generate the largest amount of data. If companies collect such machine-generated data on their own products or services the data protection aspect is less imminent than one might think.

Mergers in the digital economy may also be specific with regard to their potential efficiencies to the benefit of consumers. Such efficiencies can set-off the concerns laid out above, provided that the parties can demonstrate such effects. Competition authorities do not deny the potential that the digital economy and Big Data bear in terms of innovation and the improvement of products.¹⁷ Data gathered from users can help companies to improve their products and adjust them to the consumers' needs and wishes. Data can also enable them to customize their products to their users' preferences. In the case of platform markets, a high user number and with it a large collection of data can lead to network effects that can provide benefits for the user and the provider alike quite aside from any competition concerns they may raise.

Thus, the role of data in merger control is ambiguous. The same effects that can raise competition concerns in one case might be viewed as pro-competitive in a slightly different scenario. The burden for authorities to demonstrate a substantial lessening or significant impediment of effective competition is high. In particular, in their merger control assessment it is important to remember that the assessment concerns an appraisal of the future. The value of data can change over time and depending on the purpose for which the data are used. Even if data seems very useful and possibly indispensable today, it is crucial to assess how long it will be useful as the technology markets are moving fast.

IV. REMEDIES

Should an antitrust authority nevertheless conclude that a merger in the digital economy raises antitrust concerns the parties need to be prepared to think about suitable remedies. Whereas authorities generally prefer structural remedies such as the divestiture of parts of a business, this is difficult if the asset to be acquired is simply a large pool of data that cannot be separated out within or from the business in a commercially sensible way.

In such a situation behavioral remedies such as access to the database are relevant. In addition, remedies relating to technological interfaces and APIs could be considered. In practice, we expect that there will be few cases that require access remedies. The threshold for authorities to demonstrate the indispensability of data is very high. For instance, when the European Commission assessed the acquisition of LinkedIn by Microsoft,¹⁸ the remedies imposed on the buyer did not address access to LinkedIn's user data. Instead, the commitments appeared to be framed according to previous Microsoft commitments in 2004 and 2009 as they included pre-installation and API commitments. The duration of the commitments was limited to five years which seems appropriate given that significant structural changes in digital markets can take place over a very short period of time.

¹⁶ See German FCO, Big Data und Wettbewerb (2017), p. 12 et seq.

¹⁷ See Autorité de la concurrence and Bundeskartellamt: Competition Law and Data (2016), p. 9-11.

¹⁸ See European Commission, Case M.8124 – *Microsoft/LinkedIn*, December 6, 2016.

V. PRACTICAL CONCLUSIONS

Merger control in digital markets will be a particularly exciting area of antitrust law in the years to come. On the procedural side, the filing analysis will likely become more complex wherever new size-of-transaction thresholds require a valuation of data. This requires early coordination between the acquirer's deal team, their legal advisors and their accountants.

Another relevant practical point will be whether there are any arguments regarding the local nexus of the transaction in those jurisdictions that provide for a size-of-transaction test. Local counsel assistance might be required to understand the respective authority's interpretation of the national merger control provisions in this regard.

The substantive assessment in data-rich mergers will regularly go beyond market shares. Whether the merger impedes competition will depend on a variety of factors, and will in particular not be limited to the impact on competitors, but also on upstream and downstream markets including consumers.

However, we expect that the hurdle is very high for an authority to conclude that certain data is indispensable and requires access for competitors or upstream or downstream players. This is particularly true considering the effects of multi-homing, i.e. the parallel use of different platforms by customers which demonstrates that data is very often reproducible, albeit not always identical.

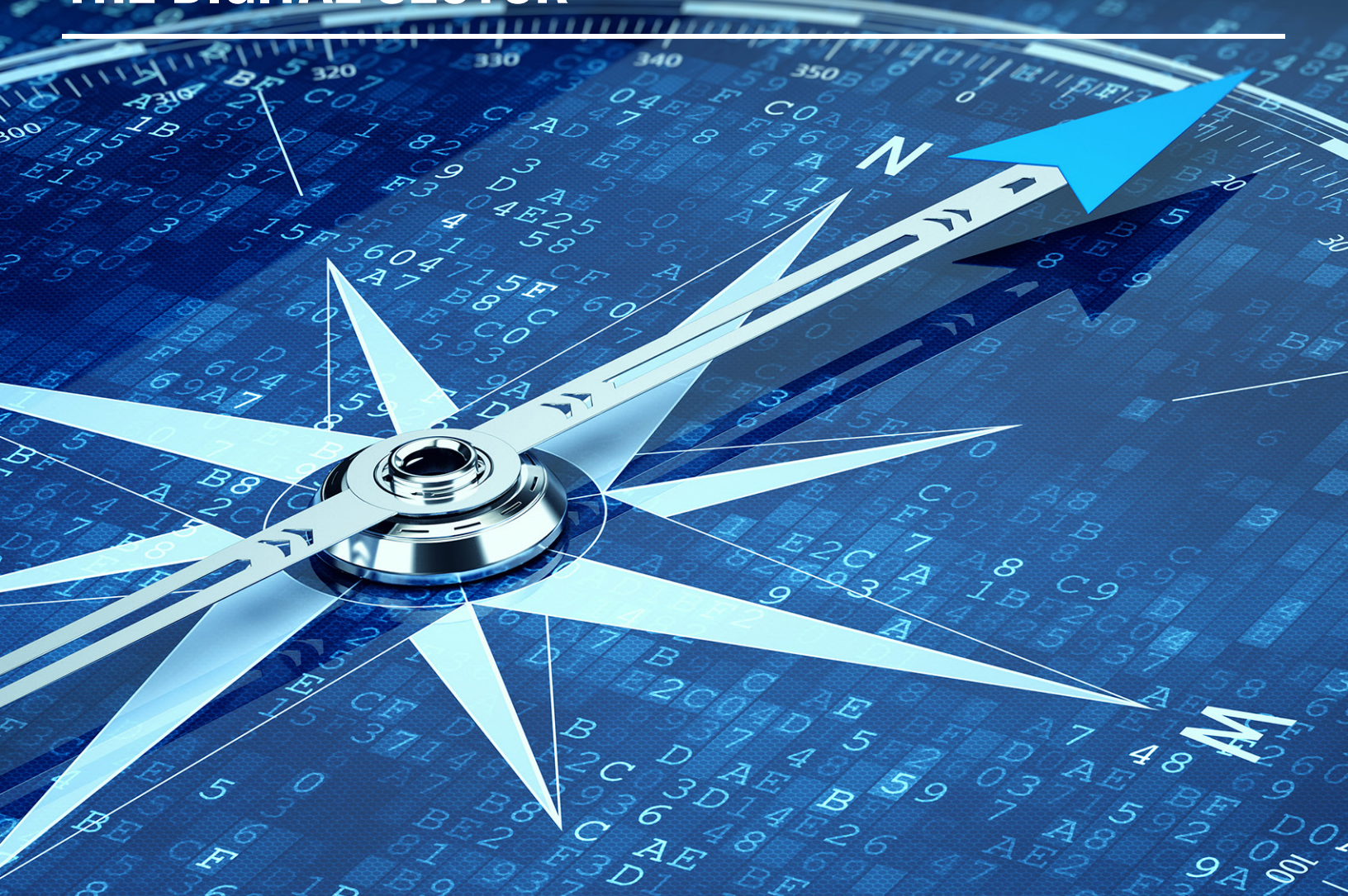
As practical advice for M&A teams and in-house lawyers, it is important to acknowledge the complexity of the IT questions involved. A successful merger case will require bridging the gap between software engineers and competition authorities. This means that the IT specialists of the companies need to be involved early on when assessing the effects of a merger. Even more importantly, the technology and the data need to be presented and described in a narrative that non-IT specialists in the authorities can understand.

In practice, it has to be expected that the number of informal preparatory talks with the authorities will rise as companies will want to avoid the risk of missing a potential filing obligation as well as delays based on misunderstandings regarding the technology relevant to the deal.

Lastly, we note that digital business models are regularly global. This means they will more likely than not attract interest from several authorities. Coordination and a global filing strategy are key for a successful merger control process.



NAVIGATING THE DIGITAL AGE: THE EUROPEAN COMMISSION'S DIFFERING APPROACHES TO MERGER CONTROL AND ABUSE OF DOMINANCE IN THE DIGITAL SECTOR



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I. BIG DATA

A. “Digital” Means Data-Driven

We cannot discuss the digital sector without discussing the main force that drives it, i.e. data. The success of digital companies depends on how they use the data they gather to create and improve their services. Data analysis plays an important role in the competitive dynamics of digital markets. Through data analysis, companies learn how to use their resources more efficiently and how to gain a competitive advantage over their rivals.

The use of data by companies has formed a major part of the conversation in the competition sphere in recent years. This is usually in the context of “Big Data,” and the ways in which its use could be considered abusive of a dominant position or problematic when mergers bring together large sets of data. In particular, the European Commission (the “Commission”) has devoted considerable attention to Big Data² and has incorporated elements of Big Data analysis in its merger practice since at least 2008.³ However, while it may appear that the risks related to Big Data are common to both mergers and to cases involving abuse of dominance, the Commission’s approach to Big Data in these two contexts is somewhat inconsistent. In the following sections, we will consider this discrepancy by looking at specific examples from the Commission’s practice.

B. Mergers: A Short-Cut to Data Advantage

The value of data largely depends on its volume, quality and how quickly it can be collected and processed. A sufficient volume of data can be built over time or there is also the option of acquiring companies that already have large sets of data at their disposal. In the digital sector, where the race to develop new functionalities is always on, companies are increasingly focusing on this option. According to one estimate, the number of Big-Data-related mergers doubled between 2008 and 2013 – from 55 to 134.⁴

The digital sector’s increased interest in acquisitions has, in turn, attracted the Commission’s attention. In one of her recent speeches, Commissioner Vestager stated that “the more important data becomes for competition, the more closely we need to look at mergers that bring together large sets of data.”⁵ The theory of harm related to such mergers would be that, by combining large data sets, which are of central importance to the offering but inaccessible to competitors, the merging parties can improve their product or service after the merger in a manner which competitors will be unable to match (i.e. the parties to the merger would use data to create a barrier to entry). This theory, however, requires that competitors cannot reasonably replicate the data in other ways – for example, by obtaining it from data brokers or by collecting and analyzing it. In other words, the combined data would have to offer the merging parties a unique, non-replicable advantage. The Commission has assessed a number of mergers involving elements of Big Data, but so far the Commission has been unable to identify such a unique, non-replicable advantage in any of these cases.

For example, in its *Google/DoubleClick* decision the Commission concluded that the merged entity, and certainly DoubleClick by itself, would not have access to unique, non-replicable data because the type of information collected by DoubleClick is relatively narrow in scope.⁶ Other companies active in online advertising had the ability to collect large amounts of more or less similar information that is potentially useful for advertisement targeting. In other words, the data was, in the Commission’s view, replicable and therefore not a barrier to entry. More recently, the Commission reviewed the merger between Facebook and WhatsApp, analyzing whether Facebook could use WhatsApp as a potential source of user data to improve its advertising. It ultimately concluded this was not the case, and that this potential use would not hamper competition.⁷

2 For example, Commissioner Vestager has illustrated in her speeches a focus on the importance of data today. See for examples, “Big Data and Competition” (available [here](#)) and “Competition in a Big Data World” (available [here](#)).

3 See for example, Case No COMP/M.4731, *Google/DoubleClick*, decision of March 11, 2008 (“*Google/DoubleClick*”) (available [here](#)); and Case No COMP/M.4854, *TomTom/TeleAtlas*, decision of May 14, 2008 (available [here](#)).

4 European Data Protection Supervisor, “Report of Workshop on Privacy, Consumers, Competition and Big Data 2 June,” July 11, 2014, at 1; (available [here](#)).

5 Vestager, “Clearing the Path for Innovation,” Speech at Web Summit, Lisbon, November 7, 2017 (available [here](#)).

6 *Google/DoubleClick*, supra note. 3, para. 269.

7 Case No COMP/M.7217, *Facebook/WhatsApp*, decision of October 3, 2014 (available [here](#)), paras. 190-191.

The Commission's merger decisions relating to Big Data demonstrate that so far the Commission has approached the topic of Big Data with caution and has been hesitant to conclude that the combination of large sets of data could create a barrier to entry.

C. Dominance: The Winner Takes It All

When data is in the hands of one company, it can provide that company with a significant competitive advantage, which could be difficult for rivals to overcome. While some competition authorities have considered the use of essential data as a barrier to entry (for example to raise entry costs or gain or maintain market power),⁸ the Commission has not yet explicitly addressed the use of Big Data in the context of abuse of dominance. This is particularly surprising in the context of the Commission's recently published decision in the *Google Shopping* case.⁹ Big Data forms a huge part of Google's business model, and arguably a huge part of its role in dominating the online search sphere. The Commission, however, decided not to incorporate the elements of Big Data into its theory of harm. Instead, in the *Google Shopping* decision, Big Data forms a part of the definition of the relevant market for search engines.

In several paragraphs of the *Google Shopping* decision, the Commission argues essentially that the volume of data accumulated by Google's search engine creates a barrier to entry to potential competitors.¹⁰ In the Commission's view, the establishment of a fully-fledged general search engine requires obtaining a large quantity of data upon which relevancy algorithms can be built and improved.¹¹ As the volume of data increases and accumulates, so too, do the relevance and accuracy of results. Equally, as data volumes increase, the amount of errors made decreases. The large volume of data is, therefore, indispensable in developing an effective general search engine. The Commission also notes that Google's rivals are unable to match Google's data advantage. According to the decision, the costs of crawling and indexing the deep Web are so high that even Google's large competitors such as Yahoo or Ask cannot keep up with Google's spending in this area.¹² Google's unparalleled data advantage is further confirmed by the fact that a number of start-ups have also attempted to launch competing general search services since 2007 but none of these companies have been able to establish a significant market presence.¹³

The Commission's decision relies on Google's data advantage to establish its dominance on the market for search services but does not go so far as to suggest that Google misused this data advantage to maintain its market power. Still, the Commission's considerations relating to Google's data advantage have some precedential value because, for the first time, the Commission concluded that the sheer accumulation of data, which is otherwise freely available, can effectively constitute a barrier to entry.

D. Conclusions

Unlike in the *Google Shopping* abuse of dominance case, the Commission seems hesitant in merger cases to conclude that consumer data could be non-replicable. The specific characteristics of the market for search services, which is arguably the most data-heavy of all the online markets, explains, to some extent, the difference in approach. The source of the Commission's hesitation, however, seems also rooted in the very nature of EU merger control proceedings. Given the strict timetable to which the Commission has to adhere, and the immediate impact of its decision on the market ("deal or no deal"), the Commission's caution appears warranted. Intervening too soon in fast-moving markets may have the counterproductive effect of chilling innovation.

8 See, for example, a fairly recent decision by Czech Competition authority, in which a transport data management company CHAPS was fined for abusing its dominance by refusing to supply rivals with updated transport timetable data between April 2008 and August 2015 (available [here](#)).

9 Case AT.39740, *Google Search (Shopping)*, decision of June 27, 2017 ("*Google Shopping*") (available [here](#)).

10 See, for example para. 328 of the *Google Shopping* Decision, where the Commission notes that "entering or expanding in general search services on mobile devices therefore requires the same magnitude of investments as for those for general search services on static devices, and the volume of data already accumulated create the same barriers to new entrants."

11 *Google Shopping*, supra note. 9, para. 286.

12 Id., para. 304.

13 Id., para. 301.

In addition, the merger analysis is, by its nature, always prospective, and the Commission faces the challenge of predicting *ex-ante* how data issues may impact markets in the future. In the fast-moving platform environment, where new solutions are constantly being tested, it is particularly difficult (and dangerous) to make these predictions.¹⁴

Finally, the Commission, which is already criticized for disadvantaging U.S. platform businesses, and confronted with accusations of protectionism, treads slowly in the area of Big Data. The first test case relating to Big Data is, therefore, more likely to come from the area of abuse of dominance than it is from that of merger proceedings, for the simple reason that in the *ex-post* analysis it will be easier for the Commission to see developments relating to Big Data, and to defend its position before the Court.¹⁵

II. INNOVATION

A. Why does Innovation Matter?

Innovation is a key dimension of competition, not only in the digital economy, but also in pharmaceuticals, medical devices, energy and mobile telecoms. Consequently, innovation is one of the five principal goals set out by Commission President Juncker in the “Europe 2020” strategy. As a specific tool to promote innovation in the EU, however, merger control has come to the fore only relatively recently. The European Parliament’s 2013 study “The Contribution of Policy to Growth,” for example, did not highlight merger control as capable of having an impact on the “Innovation Union.”¹⁶

B. The Theory, in Theory

To contextualize, however, economists themselves disagree on the extent of the relationship between mergers and innovation. To some, an “innovation” theory of harm in merger control is consistent with the original concept of competition as a dynamic process, such that a merger’s impact on dynamic competition deserves *at least* as much attention as its static effect.¹⁷ Others caution, however, that the academic literature shows there is no *automatic* relationship between mergers and innovation: to assess innovation effects in the digital economy, one needs a case-by-case analysis,¹⁸ taking into account, for example, direct and indirect network effects, multi-homing and access to data.¹⁹ Many dispute poorly defined “innovation markets.”

C. Challenges in Practice

Whatever the economic theory may reveal, it is clear that in practice the Commission regularly considers the impact of mergers on innovation in specific current and future markets.²⁰ It examines the importance of innovation to the sector, R&D costs, the number of effective competitors and the strength and the closeness of the merging parties in their innovation efforts.²¹

14 See Lorient’s testimony before the House of Lords in the Inquiry on online platforms and the Digital Single Market: “When you have new, complex issues, it is challenging for competition authorities to predict the development that you may see now in some markets, not all of them. But to ex ante tell you that such a market would have evolved in a certain way is not always obvious either”; House of Lord’s Inquiry on online platforms and the Digital Single Market, Evidence Session No. 11 Heard in Public Questions 95–108, November 10, 2015.

15 See Lorient’s testimony before the House of Lords in the Inquiry on online platforms and the Digital Single Market: “We have a system of administrative law in which we may impose penalties. We first have to find infringements and then we may have to impose penalties. Companies may appeal these decisions to the Court of Justice and therefore it is critical for us that the rights of defence are properly ensured, so that we give the time and examine”; House of Lord’s Inquiry on online platforms and the Digital Single Market, Evidence Session No. 11 Heard in Public Questions 95–108, November 10, 2015.

16 European Parliament, The Contribution of Competition Policy to Growth and the EU 2020 Strategy, IP/A/ECON/ST/2012-25 (July 2013), Table 5: Effect of competition instruments on the Flagship Initiatives, at pg. 29.

17 Federico, “Horizontal mergers, innovation, and the competitive process,” (2017) *JECLP* 8(10) 668 (“Federico (2017)”).

18 Veugelers, “Innovation in EU merger control: walking the talk,” (2012) *Bruegel Policy Contribution* 4 (“Veugelers (2012)”).

19 Scholl, “Why the new merger control thresholds in Germany,” (2017) *JECLP* 8(4) 219.

20 Petit, “Significant impediment to industry innovation: a novel theory of harm in EU merger control?” International Centre for Law & Economics White Paper (2017) (“Petit (2017)”).

21 Laitenberger, “EU competition law in innovation and digital fairness in the consumer welfare space,” MLex / Hogan Lovells, Brussels, October 10, 2017 (“Laitenberger (Oct 2017)”).

The Commission's practice has met two substantial criticisms in this regard, however. First, "innovation" itself is not defined in the Commission's guidelines, affording officials substantial discretion in their reliance on internal documents, third-party observations and experts to determine the risks of possible harm to "innovation."²²

Second, while the Commission has examined the potential negative effects of mergers on innovation and investment, it has been much more reluctant to consider dynamic *efficiencies*. The Commission ordinarily assesses such efficiencies only when the parties claim that the merger will produce them.²³ As one commentator has wryly written, however, practice should cut both ways.²⁴ Furthermore, although the Commission's Horizontal Merger Guidelines recognize gains from R&D and innovation, the merging parties face a high standard of proof: the efficiencies must benefit consumers, be merger-specific and be verifiable. By contrast, to establish any harm, the Commission applies a *probabilistic* framework.²⁵

D. Drawing on the Antitrust Toolbox

Evaluating such transactions exposes difficulties even where the merger concerns existing product market overlaps, such as defining the market for the very first time and, particularly in the digital economy, evaluating competition for the market.²⁶ Evaluation of a merger's impact on innovation is even more complex and may require a variation of the case team's usual toolbox. For example, where platforms are concerned, merger evaluation might focus less on market shares and profit margins, and more on contestability indicators (e.g. entry barriers, routes to end-users).²⁷ Several such indicators might be drawn from the framework traditionally associated with the analysis of unilateral effects,²⁸ particularly in the digital economy.²⁹

E. Innovation in Abuse of Dominance

By contrast to the more recent role for innovation in merger control, the Commission has analyzed innovation effects in abuse of dominance cases since the early 1990s and in digital economy cases since the early 2000s.³⁰ *Magill TV Guide*³¹ first established an abuse of dominance by the holder of an intellectual property right, through refusing to license such right so as to prevent the innovation of a new product.

As in the ongoing merger control debates in the EU over the specificity and likelihood of potential competition due to any future products, the EU courts, in cases subsequent to *Magill TV Guide*, have focused on whether an abuse could occur in the absence of a *particular* innovation by the licensee, and just how probable the market (i.e. demand) for such innovation must be. The Commission's position, which the EU courts have endorsed, was settled during the interoperability cases which began in the early 2000s: abusiveness may be analyzed directly in terms of innovation. In other words, it is not necessary that the refusal to license must prevent the emergence of a new product in order to be abusive under Article 102 TFEU.

Evidence of the extension even appears in the recent *Google Shopping* decision. The Commission decided that Google held a dominant position in the national markets for general search services and, by more favorably displaying its own comparison shopping services, reduced competitors' incentives to improve and to create new types of services.

22 Brandenburger, Breed & Schöning, "The Role of Innovation in Merger Control – A Hot Topic," *Competition Policy International* (2016) ("Brandenburger (2016)").

23 Veugelers (2012), *supra* note. 18.

24 Petit (2017), *supra* note. 20, pg. 8.

25 De Coninck, "Innovation in EU merger control: in need of a consistent framework," (2016) *CLPD* 2(3) 41.

26 Brandenburger (2016), *supra* note. 22.

27 Capobianco, "Challenges for competition law enforcement and policy in the digital economy," (2017) *JECLP* 9(1) 19.

28 Federico (2017), *supra* note. 17.

29 Laitenberger, "Enforcing EU competition law: principles, strategy, and objectives," Fordham University 44th Annual Conference on International Antitrust Law and Policy, New York City, September 15, 2017 ("Laitenberger, Fordham (2017)").

30 For a fuller history, see Reynolds & Best, "Article 102 and innovation," 39th Annual Fordham Conference on International Antitrust law and Policy, September 20-21, 2012.

31 Case IV/31851, *Magill TV Guide*, decision of December 21, 1988 ("*Magill TV Guide*") (available [here](#)).

F. History doesn't Repeat, but does It Rhyme?

Certain differences are apparent here. While the Commission takes into account the effect of a merger on innovation incentives, it ordinarily does so in respect of a well-defined current or future market.³² By contrast, the Commission evaluates innovation in cases of alleged abuse of dominance in respect of potential or even hypothetical markets.³³ Much as with Big Data, the difference here could be attributable to the time-constrained nature of merger review, which focuses attention on the specific relationship between the merging parties. The difference in treatment, although not confined to the digital economy, affects it more acutely, because innovation is so central to competition in the digital economy. The difference in contexts, however, should not preclude the use in merger review of the contestability “tools” of the antitrust trade.

III. FAIRNESS

A. Why Fairness, Why Now?

People may not think about politics all the time, but they do deal with the market every single day. And an ever greater proportion of our lives is governed by the market, largely because of the many digital products and services that we use. Once employed principally to consume, such products now empower us to interact, even to compete, and “fairness” has been increasingly used to define the appropriate boundaries of competition in the EU.

B. Should Competition Law Pursue Fairness?

Whether competition law should pursue fairness is debatable. Contemporary critical responses to increases in inequality have led some to propose a range of reforms,³⁴ while others have criticized the imprecise nature of fairness as disqualifying it as an objective standard.³⁵ Other approaches have sought to pin “fairness” to existing concepts within EU competition law, such as competition on the merits,³⁶ or to distinguish using “fairness” as a value in itself from using it as a tool to achieve other economic and social aims.³⁷

In its decisional practice, the Commission has generally not invoked fairness, but has substituted it with more objective standards,³⁸ yet in its decisions enforcing the EU’s rules on abuse of dominance and on merger control³⁹ “fairness” is not so easily disregarded. As the sections below discuss, while “fairness” plays a role in both abuse of dominance and in merger control, a distinction can be drawn between the *forms* which it takes. In the former, fairness appears in a substantive form, while in the latter, it relates principally to procedure.

32 See Petit (2017), *supra* note. 20. Even in respect of a chemicals merger in 2017 (Case M.7932), the Commission’s widest focus did not extend to innovation of just any kind. In its investigation the Commission examined each market in which a party was an actual or a potential competitor of the other party, or will be on the basis of its lines of research or early pipeline products. As that decision states, “R&D players do not innovate for all product markets composing the entire industry at the same time... [but] have specific discovery targets.” Nor was the downstream market open-ended in the case: “The spaces where innovation competition takes place are thus broader than an individual downstream... market, but are nonetheless small.” In practice innovation concerns in a given merger case appear to be limited to its industry: “The investigation suggests that the Transaction would be likely to significantly diminish innovation competition in a number of innovation spaces within the... industry.” By contrast, the CJEU has held that the Commission may establish an abuse of dominance by restricting innovation if the “refusal [to license] is preventing the emergence of a new product for which there is a potential consumer demand, that it is unjustified and such as to exclude any competition on a secondary market,” without confining the application of that rule to a particular industry: Case C-418/01 *IMS Health* (“*IMS Health*”), para. 38.

33 The CJEU has held that “for the purposes of the application of [*Magill TV Guide*], it is sufficient that a potential market or even hypothetical market can be identified”: *IMS Health*, *supra* note. 32, para. 44.

34 Baker & Salop, “Antitrust, competition policy, and inequality,” 10 *Georgetown Law Journal* (2015) 1-28.

35 Stigler, “The Law and Economics of Public Policy: A Plea to the Scholars,” (1972) 1 *Journal of Legal Studies* 4: “Fairness is a suitcase full of bottled ethics from which one freely chooses to blend his own type of justice.”

36 Lamadrid de Pablo, “Competition law as fairness,” (2017) *JECLP* 8(3) 147 (“Lamadrid (2017)”).

37 Laitenberger, Fordham (2017), *supra* fn. 29: “I would like to stress in closing the impact that keeping markets fair, level, and well functioning can have on our economies and societies.” The impact could include a greater range of choices and a wider freedom to choose: Lamadrid (2017), *supra* note. 36.

38 Dolmans & Lin, “Fairness and competition law: a fairness paradox,” (November 2017) *Concurrences Review* (“Dolmans & Lin (2017)”), pg. 4.

39 For a helpful taxonomy of fairness from horizontal, vertical and procedural perspectives, see Trebilcock & Ducci, “The Multifaceted Nature of Fairness in Competition Policy,” *Competition Policy International* (2017).

C. Fairness as a Competitive Process

Although the EU courts have recently emphasized procedural fairness in a case alleging an abuse of dominance in the digital economy (e.g. computer components), the Commission's decisional practice in this area has principally emphasized *substantive* fairness. The Commission pursues this through the concept of competition on the merits.⁴⁰ With regard to exclusionary abuses in the digital sector, the Commission's cases on exclusive dealing, product tying or restricted interoperability can be explained on the basis of that concept.

With regard to exploitative abuses, however, the Treaty expressly refers to fairness,⁴¹ and the case law on standard essential patents also refers to fair, reasonable and non-discriminatory terms. Recent cases on alleged abuses of intellectual property rights in copyright management, mobile telecommunications and pharmaceuticals have raised exploitative issues. In practice, however, the Commission seeks to rely on more objective measures (e.g. pricing benchmarks from competitive markets) by which it determines the "fairness" of the conduct at issue.⁴²

Such measures presuppose competition as a process, not a result.⁴³ Lyons argues, for example, that fairness comes from the process by which inequality has been generated: if the process is considered fair, then the observed inequalities are typically considered fair.⁴⁴ In the context of abuse of dominance, "fairness" refers to a substantive concept, but its meaning is largely drawn from "competition on the merits" or other objective factors which relate to the rules concerning the conditions for competition.

D. Fairness as a Procedural Safeguard

By contrast, procedural fairness has been called a "key element" in EU merger investigations. Johannes Laitenberger, for example, has emphasized the strictness of the timetable to which a case team must adhere in its merger review as facilitating procedural fairness. This seems to refer to a horizontal procedural fairness as between various sets of merging parties.

Recent decisional practice, however, indicates that the Commission would also emphasize a vertical aspect of fairness, as between the Commission and each set of merging parties. For example, the Commission has ordered fines against merging parties in the digital sector which, it alleged, provided the Commission with misleading information during the merger review. The Commission has subsequently issued statements of objections on this same basis to merging parties in other sectors. Such cases also concerned research and development and product innovation (e.g. pharmaceuticals and renewable energy).

And enforcement has extended, in this vertical respect, to sectors which compete with technologies emerging from the digital economy or which incorporate digital technologies into their products, for alleged "gun-jumping" (e.g. telecommunications and medical diagnostics). In the context of merger control, "fairness" refers to a procedural concept used to protect the integrity of the review process. It cuts both ways, however, as the Commission may choose to act if it decides that the parties' conduct could jeopardize that process.

IV. MULTI-FACETED APPROACH TO MARKET POWER IN THE DIGITAL ECONOMY

The Commission's approaches to Big Data, innovation, and fairness differ by the context of the Commission's enforcement. In merger cases the Commission seems hesitant to conclude that Big Data could be non-replicable, whereas in the *Google Shopping* abuse of dominance case, the Commission has now gone so far as to rely on a data advantage to establish a dominant position.

The scope for the Commission's innovation concerns also seems wider in abuse of dominance cases than in merger cases, where they appear principally to relate to innovation *within* the industry of the merging parties. By contrast, the EU competition rules might embolden the Commission in finding innovation abuses even *outside* a dominant undertaking's industry.

40 Laitenberger (Oct 2017), *supra* note. 21: "[F]airness is firmly anchored in the notion of 'competition on the merits,' which is so central to the case law on abuse of dominance"; and for an argument that "competition on the merits" renders fairness unnecessary, see Dolmans & Lin (2017), *supra* note. 38, pg. 11.

41 For example, Article 102(a) TFEU refers to "unfair purchase or selling prices or... trading conditions."

42 Dolmans & Lin (2017), *supra* note. 38, pg. 14-15.

43 Laitenberger (Oct 2017). Federico (2017), *supra* note. 17, pg. 670: "[C]ompetition policy has broadly embraced a 'process-view' of competition..."

44 Lyons, "Inequality and Competition Law," *Competition Policy International* (2017).

Finally, the Commission's use of "fairness" in merger cases tends to refer to procedural rules which can promote equal treatment between different sets of merging parties, and which may help to safeguard the integrity of the review process. In abuse of dominance cases, however, "fairness" has taken on a wider, substantive sense through "competition on the merits."



DISMEMBERING PRODUCERS FROM CUSTOMERS: THE *GOOGLE/SANOFI* JOINT VENTURE



BY RUPPRECHT PODSZUN¹



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I. INTRODUCTION

It is a short fifteen page non-opposition decision, yet it is very telling about mergers in the digital economy – and the European Commission's difficulties to grapple with such mergers. Google (through its subsidiary Verily Life Science) and Sanofi (through Aventis) created a joint venture, nowadays known as Onduo, to join forces in the treatment of diabetes. The European Commission in February 2016 took the decision not to oppose that merger.² The decision illustrates the shifts of economic power in the platform economy and it presents a striking remedy for concerns that may be raised.

II. CONTROLLING MAGAF MERGERS

It is not an everyday task for the European Commission to investigate mergers with one of the MAGAF companies – Microsoft, Amazon, Google, Apple and Facebook – involved. While such concentrations may have massive implications for markets and competition, they often slip through the holes of merger control. The *Facebook/WhatsApp* merger, arguably one of the most important (and expensive) mergers in the digital economy is a telling example of the difficulties of the European Commission to get hold of such cases.³ Due to the low turnover of WhatsApp, the European merger control regulation was not applicable and only the construction of a referral case from Member States allowed the Commission to look at the case (and to not oppose it). The German legislature reacted with introducing a transaction value threshold: If the purchase price for the acquisition exceeds 400 million Euros, the case needs to be notified regardless of the turnover of the target.⁴ Such a rule would have caught *Facebook/WhatsApp*. The Commission has not yet introduced such legislation.

Slipping through the net is by no means exceptional: According to Wikipedia, the MAGAF companies had more than 625 mergers. Of these, only 12 were notified to the European Commission, and only 2 cases faced substantial opposition to the merger. Put differently: Amazon, Alphabet and the like managed to grow substantially through external means (i.e. by buying up other companies). This was not even monitored intensely by the relevant competition authority let alone opposed.

III. THE CASE AND THE DECISION

With two strong companies forming a joint venture, jurisdiction for the European Commission was no problem in *Sanofi/Google*. Sanofi is active in research, development, manufacturing and marketing of pharmaceuticals. Google (or today: Alphabet), apart from running the search engine, is active in various areas, also in the field of life sciences, in particular with data-related services. The new company aims to offer:

services for the management and treatment of diabetes, including data collection and processing and data analysis (the “Services”). In addition, the JV may commercialise certain products, such as specialised continuous glucose monitoring devices ([Products the JV may supply in the future]), insulin pumps ([Products the JV may supply in the future]) and insulin ([Products the JV may supply in the future]) which can be used alongside the Services.⁵

Essentially, what the new company does is to create a digital e-health platform for diabetes patients, which will be developed by Google.

The Commission analyzed five relevant markets: insulin, insulin delivery systems (such as insulin pumps), glucose monitoring systems, services for the management and treatment of diabetes using an integrated digital e-medicine platform and data analytics services.⁶ Sanofi holds strong positions with market shares between 20 and 40 percent in the first two markets. The Commission does not provide numbers for the platform or the data analytics market.

Looking at conglomerate effects, the Commission analyzed the risk of bundling products, devices and services and/or the risk of limiting interoperability. The Commission concludes on this aspect:

2 European Commission, 23.2.2016, Case M.7813, *Sanofi/Google/DMI JV*.

3 European Commission, 3.10.2014, Case M.7217, *Facebook/WhatsApp*.

4 Section 35(1a) Act against Restraints of Competition (in the version of the 9th amendment 2017).

5 Para. 5 of the decision.

6 Para. 17 of the decision.

the Parties do not only lack the ability to foreclose rivals but also the incentive to do so given that by preventing third parties' insulins and devices to work with the Services and the Platform, the JV would drive patients away, making such a strategy unprofitable for the JV.⁷

This conclusion is based on two grounds: First, patients today use different suppliers for insulin and different systems to apply it. In order to get customers to the platform it would be unwise to only allow Sanofi-products to the platform. Second, the Commission notes that the platform will use open standards to maximize profitability.

Also, Google would not be able, according to the Commission, to leverage market power from Google Search by limiting visibility of alternative providers of such services in the search results since "the choice of a particular insulin device/product is generally made by healthcare professionals on the basis of the patient's specific needs."⁸ (It remains unclear at this point in how far healthcare professionals are immune from Google's influence.)

A final concern that the Commission looks into is – in the words of a competitor – that "the data analysis is used to make the patient more dependent on [Sanofi's] insulin," or simply to lock-in patients to the services.⁹ The Commission relies on the parties' assurance that they will respect data portability – as they have to with the General Data Protection Regulation. In this new norm, entering into force on May 25, 2018, Article 20 provides for a right of users to ask for portability of their personal data from one service to another.

The Commission writes:

According to the Parties, data portability will be driven by patient demand and preferences and Google will support the JV in affording patient data portability in compliance with the applicable rules in this regard. In this context, the Parties stated that they do not intend to prohibit or prevent the export of data by patients or healthcare professionals and will work to enable the export of data in interoperable formats.¹⁰

On these grounds, the Commission did not see a reason to oppose the planned merger.

IV. DISMEMBERING PRODUCERS FROM CUSTOMERS

The merger decision showcases the large scale developments that take place in the digital economy. Imagine being a diabetes patient. Now, thinking back 20 years: What would be your main concern in treating your diabetes? Having insulin ready. The supply relation to – for example – Sanofi would be your major customer relationship. Thinking a couple of years ahead, this may have changed: The most important issue may be to have access to your data on the platform that regulates your diabetes treatment. While the supply of the pharmaceuticals may still be the prime concern, the more important customer relationship may be to the platform (i.e. Google), not the producer, Sanofi.

This is typical for businesses where a platform squeezes in to organize and digitalize the relationship of consumers with the good of their preference: The producers of the sought-after product or service are dismembered from their customers. The management of preferences is provided by a platform operator that controls all sorts of related business-relations. Taking the case at hand as an example: With e-health on the rise, it is less and less the professional healthcare specialist who manages and advises the patient but the platform operator who may work with professional healthcare specialists. The platform brings together different customers and suppliers. This is efficient, transaction costs will probably be reduced. Yet, in this scenario, the key supplier, namely the producer of an illness-treating pharmaceutical, loses the contact with its customers and falls into the position of a supplier somewhere in the backyard of the platform. The same holds true for the doctor or healthcare specialist. Pharmacists will also depend upon the platform since supply will be organized via e-commerce, not a brick-and-mortar point of sale. Insurance companies better fit into this ecosystem.

This is the logic of platforms: they squeeze an efficient matchmaker into a customer-relationship that so far had been dominated by the producer. Now, it is dominated by a data-driven service-provider. Similar situations may be found in all sorts of platform markets, be it the delivery

7 Para. 84 of the decision.

8 Fn. 38 of the decision.

9 Para. 66 of the decision.

10 Para. 68 of the decision.

of food, services like Uber or Airbnb, or – put to extremes – in the management of daily life through digital assistants in your home. While the real interest of the consumer is for getting the product (food, a taxi, a bed and whatever Alexa organizes for you), the gatekeeper is a different company. Due to the importance of data and the transparency of the customer for a data analytics expert plus the control of many other aspects of the customer's life (e.g. through control of the operating system on your mobile phone or the selection of your search results on the Web etc.), this gatekeeper reaches a non-contestable position. With the winner-take-all dynamics of typical platform markets, it may soon be a business dominated by one single platform.

This is a strange distortion of traditional concepts of competition. Competition is a discovery procedure, to use the famous words by Friedrich von Hayek; it is the working mechanism of coordinating supply and demand. In the platform economy, the discovery procedure with its anarchic power is reduced to data management and algorithmic decision making by an intelligent computer. Supply and demand are now coordinated by the nearly invisible hand of a private company. This company decides whether Sanofi may supply insulin or not and who is the healthcare professional to be consulted.

The efficiency that the gatekeeper on a platform may generate in the beginning may soon be replaced by a profit-maximizing regime that controls and steers customer needs and limits the competitive possibilities of producers. The autonomous decision making process of different undertakings in competition is reduced to catering to the wishes of the platform operator.

These are the three consequences of competition for the market: A gatekeeper steps in and dismembers customers from producers. Customers are locked in with the platform provider. Competition is pushed into the backyard of the platform where different companies may fight for access to the platform.

Does the Commission see this development with a sharp eye? Doubts remain. The focus of the analysis in the *Sanofi/Google* case is not on the effects of the platform but the strengthening of Sanofi in insulin supply while it seems that Sanofi may soon easily depend on Google much more than the other way round. If diabetes patients log their data with a platform and find it a neat helper for managing their illness, they will be hooked to the platform – not to the provider of their health-enhancing pharmaceutical where there are competitors.

The Commission found it worth noticing that the platform will be accessible via different browsers,¹¹ probably pointing with this hint at the risk that Google may use dependency of patients to lure them to using an Alphabet-gateway for access. But in this matter, as well as in other regards, the Commission does not take commitments from Google, but completely relies on the assurances of the parties to the merger.

One year after deciding *Sanofi/Google* the Commission took a decision against Facebook for giving wrong information in the *Facebook/WhatsApp* proceedings, relating to the question of integration of user information from the two services.¹² The Commission had relied on the parties' statements, believing that there would be technical barriers to integration that can hardly be overcome.

With a view to the experiences in *Facebook/WhatsApp*, confidence in non-qualified assurances by parties to the merger may be looked at more skeptically.

V. OUTDATED TOOLS FOR MARKET DEFINITION AND ANALYSIS

The analysis of the Commission lacks a clear concept for tackling the dangers of the platform economy. The growth of the MAGAF companies is not worrying for their strength in their very own fields (like search in the case of Google), but for their reach into other fields. Obviously, there is no guarantee that Google will become the dominant e-health platform operator, so maybe it is not too worrisome that the Commission did not oppose the *Sanofi/Google* team up. Yet, the Commission does not even have the analytical tools for assessing such a case.

A. Market Definition

The key feature showcased by this joint venture is the integration of markets that before had been completely separate: data analytics and insulin. Platform services and insulin pumps. Looking at narrowly defined markets and finding that there is no horizontal overlap between Google and Sanofi does not get to the gist of the case. The gist of this case is the establishment of data services in healthcare and the data-driven locking-in of customers to a specific system. The bigger picture is that this system, the Google-operated e-health platform, is integrated in an even larger environment, where it is easy for a consumer to settle in: a Google-controlled, interoperable ecosystem.

¹¹ Cf. Fn. 6 of the decision.

¹² European Commission, 17.5.2017, M.8228, *Facebook/WhatsApp* (Art. 14.1. proc.).

Narrow market definition stands in the way of a proper analysis of such cases. Even though the Commission turns to conglomerate effects, the path dependency is so strong with the definition of markets that it is hard to overcome the bias for narrow separate markets. In the Non-Horizontal Mergers Guidelines, the Commission in 2008 stated: “Non-horizontal mergers are generally less likely to significantly impede effective competition than horizontal mergers.”¹³

This sets the tone for the analysis, and the strategies identified in the Non-Horizontal Merger Guidelines for foreclosure may need an update for the digital economy.

The focus on market shares explains why the Commission seems to worry more about Sanofi than about Google. With a market share of 30-40 percent in insulin pumps, Sanofi undoubtedly is a big player. Identifying market shares in data analytics is not even undertaken in this decision, and the strength of Google is thus not put into striking numbers. Thus, the Commission worries that Sanofi may become dominant in the supply of insulin and insulin pumps. It does not shift attention to the fact that Google will determine who supplies what to whom.

B. Access to Data

In reviewing the potential impediment of effective competition, two factors deserve specific attention: access to data and financial power. The first factor is the power of data and access to data.¹⁴ Data analysis profits from network effects. The Commission probably underestimated in the 2016 decision how easily customers may be “hooked”¹⁵ by the intelligent design of apps, platforms and other devices, based on data.

In *Sanofi/Google*, the Commission reiterated that privacy concerns are not a matter for merger control proceedings. The absoluteness with which this statement is made may be misleading. The use of data and the privacy framework are essential parameters in markets, and as all parameters that determine the behavior of companies need to be taken into account. The interplay of privacy concerns on the one hand, and the ability to foreclose markets on the other, may not have been fully acknowledged yet. Furthermore, rights to privacy form the legal framework for exercising market behavior. It may require the same attention as other market entry barriers or determinants of market conduct.

The second factor is the breathtaking financial power of companies like the MAGAF companies, which deserves closer attention. Merger control actually has a bias against financial power, otherwise growing through buying would not be under the specific scrutiny of competition authorities. When merger control was introduced, lawmakers felt that financially powerful companies have the means to reduce competition without really deserving it. In the *Sanofi/Google* decision, financial power is not even mentioned as a factor relevant for the appraisal, although it is expressly mentioned in Article 2 (1)(b) of the Merger Control Regulation. Stopping MAGAF companies from turning one market after the other upside down would require to give meaning to the analysis of financial power in mergers. In its scenarios, the Commission underestimates the possibilities going hand in hand with deep pockets.

Financial power has traditionally been a weak point in merger analysis. This may follow from the fact that financial means do not directly contribute to market power (as the focal point of traditional competition analysis) but need some transformation. Neither the Horizontal nor the Non-Horizontal Merger Guidelines mention financial power at all.

One of the few decisions, expressly noting the financial advantages of a company, is *GE/Honeywell*.¹⁶ The decision makes clear that financial strength helps in securing a strong market position, yet the path opened here is rarely followed in other decisions. In *Alitalia/Etihad*, the Commission expressly rejected the argument that Etihad as an Abu Dhabi airline has vast resources and thus is in a better position in the market than other airlines.¹⁷ The Commission stated that the European competitors making this argument did not substantiate their concerns – as if proving financial power was a duty of companies opposing a merger.

13 Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, (2008/C 265/07), para. 11.

14 Germany, in its 9th amendment of the Act against Restraints of Competition, listed access to data as a new market power factor to be taken into account, section 18 (3a).

15 Cf. Eyal, *Hooked – How to Build Habit-Forming Products*, 2014.

16 European Commission, 3.7.2001, M.2220, *GE/Honeywell*, at paras. 107 ff.

17 European Commission, 14.11.2014, M.7333, *Alitalia/Etihad*, at para. 342.

VI. A STUNNING REMEDY

Sanofi may not require protection from the competition agency. Yet, what about the consumer? Although the Commission uncritically notes the assurances of the merging parties regarding their openness and their willingness to enable portability, the Commission expressly refers to the General Data Protection Regulation and the rule for data portability in Article 20:¹⁸

The Commission notes that the Parties would lack the ability to lock-in patients by limiting or preventing the portability of their data given that, according to the draft General Data Protection Regulation (“GDPR”), users will have the right to ask for data portability of their personal data. (...) In light of the above, the risk of the JV locking-in patients to the Services appears unlikely to materialise in the foreseeable future.¹⁹

The reliance on the GDPR is stunning for three reasons. First, it is noteworthy that the Commission sees it as helpful to rely on this remedy of data portability although it does not identify any concerns. Why would there be a need for data portability if competition is working perfectly fine?

Second, it is striking that the Commission seems to believe that as of May 2018, data portability will work in practice and may thus remedy competitive problems. Telecommunication companies have a duty from regulatory law to allow customers to switch from one phone company to another. Yet, switching in practice is not as simple as that. Companies found ways to obstruct losing their consumers. How much more vulnerable is a process where you want to switch a large amount of data that may be integrated with other content that is not part of your personal data? The belief in the remedy of data portability still needs a practical test.

Third, the Commission underestimates the status quo bias of consumers. If it is burdensome, costly or time-consuming to switch, people will stay with the status quo – even if that brings a lack of quality. Not discussing this issue at all means that behavioral studies have not yet reached peak performance in competition law.

Imagine the same case not with an e-health platform and diabetes data of consumers, but with autonomous driving and industrial data fed into a traffic organizing platform. Would the Commission have taken a similar approach? Would it make data portability a compulsory competition law remedy in appropriate cases for industrial data? The GDPR only applies to personal data, not to non-personal data. Portability may be a key feature for the next industry cases.

Yet, even if portability of data was secured and working in practice, the main concern with the *Sanofi/Google* case would not be addressed by it. Portability of data is a second-best remedy only. It may work in the unlikely case that there are competing platforms. This is unlikely for platform markets due to the monopolization tendencies in such markets. Yet, assuming that there were such a platform, portability would not bring the customers closer to the supplier of what they most need: the real product, the pharmaceutical. This is a problem: the customer no longer profits from competition on the level of its direct contact (the platform), but competition is marginalized. It may take place where suppliers compete for access to the platform. The case at hand shows that even this may be reduced if there are exclusive dealings with one supplier.

Suppliers, like Sanofi, no longer receive the direct signals of customers. This leads to the potentially damaging situation of platform competition: the control and steering of the markets involved lies in the hands of one party with less and less possibilities of the different users and contributors of the platform to control the gatekeeper. *Sanofi/Google* illustrates that the Commission has not yet found competition law tools to evaluate such a development.

It is necessary at this point to underline that platform economics of course generate efficiencies and innovations and have unleashed enormous potential in many markets. Yet, the dynamics may be slowed down by gatekeepers that start to abuse their position. If the Commission wants to have a meaningful say in MAGAF merger cases it needs to get rid of narrow market definitions and have a better analysis of conglomerate mergers. It needs to place more emphasis on market power through access to data and financial power. Finally, it needs to come up with a regime of platform regulation, determining the competitive obligations for gatekeepers of the digital world. This requires more than fifteen pages of analysis of a joint venture of one of the big leaders in pharma and one of the big leaders in the world.

¹⁸ Article 18 at the draft stage that was known at the time of deciding the case.

¹⁹ Para. 69 of the decision.

NEW RULES FOR MERGERS IN THE DIGITAL ECONOMY IN GERMANY

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I. INTRODUCTION

As early as 2010, the Federal Cartel Office (“FCO”), Germany’s antitrust watchdog, started looking in more detail into business practices in the digital economy. One of the first major investigations concerned “best price” (most favored customer) clauses used by hotel reservation platforms.² Other investigations followed, *inter alia*, concerning Amazon’s price parity clauses,³ ASICS’ prohibition of its distributors to use third-party platforms such as Amazon and eBay as well as price comparison websites for the distribution of ASICS running shoes,⁴ and Booking.com’s “best price” clause,⁵ to name a few. These and other cases showed and highlighted some practical challenges arising from the digital economy, in particular from two- or multi-sided markets (platforms). In order to adequately respond to these challenges, the FCO established a “think tank” at the beginning of 2015 with the goal to review the latest economic and legal research, its applicability to practical cases, and to refine existing and develop new methods for analyzing cases from the digital economy.⁶

The FCO’s think tank came to the conclusion that the existing statutory framework is generally adequate for assessing and adjudicating competition concerns arising from the digital economy, particularly the operation and effects of platforms and networks, but certain amendments and clarifications would be beneficial for enforcing competition policy in the digital age. The authority’s suggestions were positively received by the Federal Government⁷ and later also by the legislature for the latest update of the German Act against Restraints of Competition (“ARC”).⁸ This 9th Amendment Package to the ARC, which entered into force on June 9, 2017, brought the following changes to German antitrust law that affect mergers in the digital economy.

Most notably perhaps, the German legislature introduced new merger control thresholds that deviate from the turnover-only thresholds of the past and introduce a threshold based on the value of the transaction. In order to further develop the substantive review of mergers in the digital economy, a new provision clarifies that a “product market” may also be deemed to exist if services are provided free of charge to the users. Moreover, the criteria for assessing the market position of an undertaking and thus establishing the existence of market dominance have been extended with a particular view to multi-sided markets and networks.

II. NEW MERGER CONTROL THRESHOLD BASED ON TRANSACTION VALUE

Prior to the 9th Amendment Package to the ARC, a corporate transaction (concentration) was only subject to German merger control if the conditions for European merger control were not met and, in the last completed financial year:

- (a) all undertakings participating in the concentration had an aggregate worldwide turnover of more than 500 million Euro;
- (b) one participating undertaking had turnover of more than 25 million Euro in Germany; and
- (c) another participating undertaking generated turnover of more than 5 million Euro in Germany.⁹

An exemption applied for transactions involving an undertaking – on either the purchaser’s or the target’s side – with comparatively low turnover

2 Federal Cartel Office, decision of December 20, 2013, B9-66/10 para. 54 – *HRS*.

3 Federal Cartel Office, decision of November 26, 2013, B6-46/11; see also the respective case summary at: http://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Kartellverbot/2013/B6-46-12.pdf?__blob=publicationFile&v=2 (English version).

4 Federal Cartel Office, decision of August 26, 2015, B2-98/11; see also the respective case summary at: http://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Kartellverbot/2016/B2-98-11.pdf?__blob=publicationFile&v=2 (English version).

5 Federal Cartel Office, decision of December 22, 2015, B9-121/13; see also the respective case summary at: http://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Kartellverbot/2016/B9-121-13.pdf?__blob=publicationFile&v=2 (English version).

6 Federal Cartel Office, B6-113/15, Working Paper – Market Power of Platforms and Networks, June 2016, p. 1 et seq.; available at: http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Berichte/Think-Tank-Bericht-Langfassung.pdf?__blob=publicationFile&v=2 (English version).

7 See Federal Ministry of Economics and Energy, Green Paper on Digital Platforms, May 2016; available at: https://www.bmwi.de/Redaktion/DE/Publikationen/Digitale-Welt/gruenbuch-digitale-plattformen.pdf?__blob=publicationFile&v=20 (German only).

8 Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/11446.

9 Section 35(1) ARC.

(so-called *de minimis* clause): Even if the above conditions were met, a transaction was not subject to German merger control if one of the undertakings involved generated worldwide turnover of less than 10 million Euro.¹⁰

These relatively simple triggers for German merger control are supplemented by an additional threshold according to which a concentration will also be subject to German merger control if the conditions for European merger control are not met and, in the last completed financial year:

- (a) all undertakings participating in the concentration had an aggregate worldwide turnover of more than 500 million Euro;
- (b) one participating undertaking had turnover of more than 25 million Euro in Germany;
- (c) no other participating undertaking generated turnover of more than 5 million Euro in Germany;
- (d) but the value of the consideration for the concentration is more than 400 million Euro; and
- (e) the target company is active to a considerable extent in Germany.

In the context of this new transaction value-based threshold, the above mentioned *de minimis* clause does not apply.

When designing the new threshold, the legislature had one particular transaction in mind: the acquisition of the messaging service WhatsApp by Facebook in 2014. Since WhatsApp did not generate turnover in Germany of more than 5 million Euro (while the other two turnover-related thresholds were met by Facebook), the transaction was not subject to review by the FCO. Although the European Commission reviewed the *Facebook/WhatsApp* transaction, this was made possible only because of a specific referral request by the parties to the transaction.¹¹ This is possible if the transaction would otherwise be subject to parallel national merger control procedures in three or more EU Member States.¹² The FCO – and then the federal legislature – therefore reasoned that the time-honored turnover thresholds of German merger control laws are not capable of catching competitively significant transactions, particularly in new, digital markets where services are provided free of a monetary charge, but users' data forms "payment" for the services. Thus, in order to avoid that such transactions escape pre-merger antitrust scrutiny, the transaction value was thought to be a prudent basis to indicate whether the acquisition of a company with low turnover concerns a market participant with high innovation potential and thus a considerable risk that the concentration will result in a dominant market position of the acquirer.

A. Transaction Value

The key term of the new threshold is "value of the consideration [for the concentration]." This term comprises all assets and other benefits in kind (purchase price) plus the value of any liabilities assumed by the purchaser.¹³ According to the legislature's explanatory memorandum, the concept of assets is broad and also includes those kinds of consideration that are linked to the occurrence of particular conditions. This includes consideration based on earn-out clauses, additional payments for achieving turnover or profit targets and payments related to non-compete agreements.¹⁴

Naturally, the undertakings participating in the concentration will have to carry the burden of calculating the value of the consideration and, if necessary, choosing a method for determining the goodwill. In the opinion of the legislature, an additional certification by an auditor will not be necessary, as a general rule.¹⁵ In contrary to these expectations, the new threshold generated considerable legal uncertainty since it entered into force, albeit in areas which were not the focus of the debate before the 9th Amendment Package was enacted.

¹⁰ Section 35(2) 1st sentence ARC.

¹¹ European Commission, decision of October 3, 2014, M.7217 para. 10 et seq. – *Facebook/WhatsApp*.

¹² Art. 4(5) Council Regulation (EC) No. 139/2004 of January 20, 2004 on the control of concentrations between undertakings, OJ 2004 L 24, p. 1 et seq. ("EMCR").

¹³ Section 38(4a) ARC.

¹⁴ Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 77. This mirrors the practice in the US (16 C.F.R. §§ 801.10-801.15 Valuation Rules), see also Federal Trade Commission, Valuation of Transactions Reportable under The Hart-Scott-Rodino Act (<https://www.ftc.gov/enforcement/premerger-notification-program/hsr-resources/valuation-transactions-reportable-under>).

¹⁵ Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 78.

Determining the value of consideration seems simple when the parties agree on a fixed purchase price, or on a certain number of shares to be transferred to the seller (or an indefinite number of shares with a certain stock market value on a certain reference date). However, the law requires that – in addition to the agreed purchase price – also the value of any liabilities assumed by the buyer shall be taken into account.¹⁶ This will not always be an easy task.

First, there is the question of whether the statutory term “liabilities” is to be taken literally and thus only those items must be taken into account that are shown as liabilities in the target company’s balance sheet.¹⁷ If so, “provisions”¹⁸ could probably remain outside the scope although this term encompasses also “uncertain liabilities.” It appears plausible including these type of liabilities since they too are assumed by the purchaser as a result of the transaction. On the other hand, uncertain liabilities do not necessarily reduce the company’s value (at a later stage). Thus the amendment to the ARC leaves uncertain how to handle, in practice, instance provisions for (supposedly or actually) unlawful conduct by the target company which were created to cover (more or less probable) future compensation claims and fines.

Second, another set of challenges arises in connection with the calculation of the value of consideration including the assumed liabilities. As far as the assumed liabilities are concerned, the values used for preparing the target’s balance sheet will be a natural reference point. However, numerous questions can be expected to arise in connection with calculating the value of the consideration in case of deferred or contingent payments. For example, a share purchase agreement may provide for a payment of a basic purchase price on the signing date and a deferred payment that is to be calculated based on market developments at a later date, e.g. on the closing date. If the signing and closing date are not far apart and it appears probable that the conditions for the deferred payment will be fulfilled, the deferred payment will obviously have to be included into the value of consideration. Thus, if the basic purchase price plus assumed liabilities amounts to 395 million Euro and the deferred payment may amount to 10 million Euro, the new 400-million-Euro threshold should be considered as fulfilled. However, neither the statutory provisions nor the legislative memorandum provide guidance on how to proceed if the probability that the purchaser will have to make the deferred payment is uncertain or considered as low. Although practitioners may look to the practice of the U.S. FTC for guidance,¹⁹ it is not a given that the FCO and German courts will come to similar conclusions and adopt the same stance as the FTC has developed in previous years.

Since the new threshold entered into force, this issue has become relevant in transactions involving the acquisition of IP rights, particularly the acquisition of rights to pharmaceuticals that are yet under development. In such transactions the parties often agree on payments that are contingent on reaching certain milestones, e.g. successful conclusion of clinical trials, obtaining approvals for marketing the drug for specific uses or by specific authorities, exceeding certain turnover thresholds. These milestones may usually be reached years after signing and closing the initial transaction, if at all. Thus the question arises how parties shall account for such contingent payments if the initial fixed payment is well below the 400 million Euro threshold and it would be exceeded only if the latter of the agreed milestones are met. In the U.S. practice, such contingent payments may be qualified as “undetermined” requiring the parties to assess the fair market value of the assets to be transferred,²⁰ unless there is a reasonable, non-speculative basis for estimating the contingent payment amount.²¹ Such decision practice has yet to develop in Germany.

Precedents from the U.S. may be of help to practitioners in construing and applying the new German merger control threshold. However, caution should be exercised when doing so. If the value of consideration is calculated differently than the FCO (and later the courts) believes the calculation should have been made, the transaction parties may mistakenly think that their transaction does not need pre-merger approval even though the conditions of the transaction value-based threshold were met. In this case, closing the transaction without obtaining prior approval would qualify as “gun jumping,” i.e. as an infringement of the prohibition to consummate a reportable transaction prior to obtaining merger clearance.²² Such an infringement may be sanctioned with a fine of up to 10 percent of the participating undertakings’ worldwide turnover.²³

16 Section 38(4a) no. 2 ARC.

17 Section 266(3) lit. C. German Commercial Code (“GCC”).

18 Section 266(3) lit. B. GCC.

19 Cf. the informal interpretations of the FTC, available at: <https://www.ftc.gov/enforcement/premerger-notification-program/informal-interpretations>.

20 16 C.F.R. §801.10(b), (c)(3).

21 Pre-Merger Notification Practice Manual, 54-55.

22 Section 41(1) 1st sentence ARC.

23 Section 81(2) no. 1, (4) 2nd sentence ARC.

Moreover, the executives and other individuals responsible for the infringement may be hit with an individual fine of up to 1 million Euro.²⁴ In order to avoid these risks, the transaction parties may approach the FCO to obtain their view whether the parties' preferred approach to calculating the value of consideration will be accepted. The FCO is open to such informal discussions and these can usually be set up on relatively short notice. However, the amount of information that might be requested by the FCO to have a meaningful pre-notification discussion may be very close to the amount of information that is necessary for an actual merger filing. Thus, particularly in cases that do not raise serious competition concerns, it might be less burdensome and lead to a quicker clearance if the parties just file a (precautionary) merger notification with the FCO even if it appears doubtful whether the value of the consideration for the transaction exceeds 400 million Euro and the other conditions of this threshold are also met, respectively.

The seemingly clear threshold for the value of the consideration is thus not at all simple to deal with and can be a source of uncertainty in a transaction. With this in mind, the German legislature suggested in its explanatory memorandum that the FCO may have to consider the publication of guidelines or other informational material concerning the calculation of the value of consideration.²⁵ This suggestion was taken up by the FCO very fast once it was confronted with more requests for clarification and guidance than it had expected. The new transaction value-based threshold was mirrored by the legislature in Austria,²⁶ and the FCO is drafting these guidelines in cooperation with the Austrian Federal Competition Authority. The comparison with other FCO guidelines, e.g. on the issue of analyzing domestic effects, highlights the limits of these kinds of "soft laws." The guidelines cannot cover all conceivable cases and, especially for the most difficult ones, do not necessarily contain sufficiently clear statements or only advise to make a precautionary filing. Thus, such guidelines might not provide clarity to the extent sought after by companies.

B. Activities in Germany to Considerable Extent

Further practical issues arise from the criterion of the new threshold that the target company must be active in Germany to a "considerable extent." This aims to ensure that only transactions with sufficient connection to the German market are subject to merger control in Germany.

In practice, the ambiguity of the term "considerable domestic activity" causes interpretation difficulties as well. The legislature's explanatory memorandum only lists as an example of domestic activity that the company's services are used in Germany and the existence of domestic R&D activities.²⁷

With regard to cases from the digital economy, the number of active monthly users or the number of unique visits to a website may be taken into account. In this respect, the legislature's explanatory memorandum uses a messaging application for smartphones as an example. If the app is marketed to the general public, one million users are deemed as sufficient to assume a considerable domestic activity, while fewer users might render the same result in the case of more focused apps.²⁸ Since approximately 50 million individuals used smartphones in Germany in 2016,²⁹ the example seems to imply that a penetration rate of 2 percent would be sufficient for establishing a "considerable domestic activity." It remains unclear, however, whether this is the minimum or whether a lower penetration rate could fulfill the criterion too.

Moreover, the legislative materials seem to contain a contradictory statements on the relevance of turnover generated by the target company: on the one hand, the legislative memorandum states that "all objective, quantifiable criteria for establishing the local nexus that are tied to the target's turnover have to be ruled out."³⁰ Surprisingly, the same paragraph then goes on to elaborate that it will cause less problems for the transaction parties to establish whether the target is active and, respectively, whether it generates turnover in Germany. Furthermore, the example which is used to explain when activities in Germany do not qualify as considerable also centers on the target's turnover. In this example, a Canadian conglomerate sells its special engine manufacturing business to a German competitor for a purchase price in excess of 400 million

24 Section 81(2) no. 1, (4) 1st sentence ARC.

25 Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 78.

26 The transaction-value based threshold introduced into Austrian law is almost identical to the German provision: a merger has to be notified if the combined worldwide turnover of the undertakings exceeds 300 million Euro, the combined Austrian turnover of the undertakings exceeds 15 million Euro, the value of the transaction exceeds 200 million Euro and the target has significant activities in Austria (Section 9(4) Austrian Cartel Act).

27 Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 75.

28 Ibid.

29 <https://de.statista.com/statistik/daten/studie/198959/umfrage/anzahl-der-smartphonennutzer-in-deutschland-seit-2010/>.

30 Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 75.

Euro. Both the purchaser and the target each generate turnover of more than 300 million Euro worldwide, with the purchaser generating turnover of more than 25 million Euro and the target of around one million Euro in Germany.³¹ The legislature concludes that in a market of high turnover volumes and a long history of trading goods for consideration, a company with domestic turnover of one million Euro does not pass the test of having considerable domestic activities. Although one can derive from the example that the volume of the market for special engines exceeds 600 million Euro worldwide, the example does not discuss the volume of the German market. Thus, this example does not actually assess the significance of the target's activities in Germany, but in essence tries to limit the applicability of the new merger control threshold "through the backdoor." However, if the German market for special engines had a volume of 70 million Euro, the purchaser's market share would amount to approximately 35.7 percent. This would be quite close to the threshold of 40 percent at which market dominance is presumed under German law³² and thus one would expect that the addition of the target's 1.4 percent market share is significant enough to warrant at least a (cursory) merger control review.

In addition, the stated aim of the new threshold is to catch transactions involving companies with innovative business ideas with high market potential where the classic turnover thresholds are not suitable to identify transactions of high competitive relevance.³³ Against this backdrop, it is even more surprising that the legislative memorandum does not mention the aspect of innovation potential in the assessment of the above examples. One might presume that a messaging app with one million users in Germany only justifies a purchase price of more than 400 million Euro if the app is indeed innovative and offers corresponding market potential. The latter might also be true for a manufacturer of special engines who just entered the German market a short time ago, and because of its innovative products managed to obtain a market share of 1.4 percent against overwhelming competition by a market leader having a market share of 35.7 percent.

Summarizing the above, the legislative materials are not very helpful in explaining the notion of "considerable activities in Germany." The apparent wish of the legislature and the FCO to limit the new threshold's application to transactions in the digital economy does not have a clear basis in the statutory provision and is thus achieved only at the expense of clarity and unambiguity. Perhaps the guidelines currently being drafted by the FCO and the Austrian competition watchdog will bring additional and more plausible examples and explanations.

III. PRODUCT MARKETS WITH PRODUCTS AND SERVICES FREE OF CHARGE

The 9th Amendment to the ARC brought a small but profound change to the traditional notion of defining product and service markets. In the past, the FCO as well as German courts held that a product (or service) market requires the exchange of a product (or service) for consideration.³⁴ A new provision explicitly states that a market may also exist if a product (or service) is provided free of charge.³⁵ This might be understood as if the motivation to generate income is of no relevance anymore. However, the legislative memorandum clarifies that only a direct monetary exchange is not strictly necessary anymore for assuming a market, i.e. the service provider still needs to have commercial motivation for his activities by generating income from other sources and using these proceeds to cross-finance the "free of charge" services.³⁶ This clarification is clearly designed to cover two- or multi-sided markets (platforms) where the platform may generally be used free of charge by consumers, while the platform operator generates income from advertisements and/or fees charged to commercial users or for premium services.³⁷ In its more recent decision practice prior to the 9th Amendment Package to the ARC, the FCO concluded that two- or multi-sided platforms may be qualified as a single product market instead of limiting the product market to the market side on which the platform operator receives a remuneration from (commercial or premium) users or advertisements.³⁸ These more recent decisions will remain relevant since the new provision only makes it *possible*, but does not require to establish the existence of a product market even if the actual product or service is exchanged free of charge. Thus, two- or multi-sided markets may still be qualified as one separate product market if this approach is better suited to assess the market and competition dynamics.

31 Ibid.

32 Section 18(4) ARC.

33 Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 71.

34 Cf. Higher Regional Court Duesseldorf, decision of January 9, 2015 – VI Kart 1/14 (V) para. 43 – *HRS*; Federal Cartel Office, decision of January 19, 2006, B6-103/05 p. 23 – *Springer/Pro7Sat1*.

35 Section 18(2a) ARC.

36 Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 47 et seq.

37 Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 48.

38 Cf. Federal Cartel Office, decision of April 20, 2015, B6-39/15 – *Online Real Estate Platform*; decision of October 22, 2015, B6-57/15 – *Online Dating Platform*.

IV. ADDITIONAL ASSESSMENT CRITERIA FOR DOMINANCE IN THE DIGITAL ECONOMY

Digital markets have already been under closer inspection by the FCO in the past, including mergers involving platform operators.³⁹ Furthermore, the FCO and the French Autorité de la Concurrence published a joint paper on “Competition Law and Data,” where the two authorities examined the significance of “big data” as an instrument for market power.⁴⁰ The 9th Amendment Package extended the analytical framework by explicitly listing certain criteria in Section 18(3a) ARC that will have to be taken into account in the assessment of market power, particularly of platforms and networks.

A. Network Effects

Network effects exist where the value of the platform service for one user group increases or decreases depending on the size of the other user group. Network effects can influence competition in various ways. First, network effects can result in a monopoly, since users tend to choose platforms that are already popular, i.e. a network or platform may become the “industry-standard” simply by its network effects (market tipping). Second, and countering the foregoing effects, network effects can facilitate market entry and rapid growth of newcomers. Assessing direct and indirect network effects will be particularly relevant for determining market power of a platform that certain user groups may use free of charge since the lack of a fee (price) the traditional SSNIP test would be difficult to apply.⁴¹ In case of a merger of digital platforms, the parties will have to explain, for example, if and to what extent the transaction will reduce (or increase) the risk of market tipping due to the merging platforms’ combined network effects.

B. Single-homing/Multi-homing

Single- and multi-homing is another important factor for determining market power. If users prefer to use a single platform or network for a specific task (single homing), the risk of monopolization increases since new market entrants will have more difficulties and thus higher costs attracting users from existing platforms. In the case that users have a propensity to multi-homing, platform and network operators might be under higher pressure to differentiate their services. A higher degree of differentiation may result in a decrease of multi-homing uses if a platform operator is particularly adept at satisfying changing customer needs and thus making the continuous use of alternative platforms less attractive. On the other hand, multi-homing may also be encouraged by new entrants if and to the extent they manage to lower switching costs for the user. The relevance of single-/multi-homing for the competitive assessment of a corporate transaction is closely linked to the (direct and indirect) network effects of the parties’ platform or network services. In case of single-homing, the parties’ combined operations may not need to show particularly strong network effects to raise competition concerns and vice versa.

C. Economies of Scale in Combination with Network Effects

Another aspect to be taken into account are economies of scale arising in connection with network effects.⁴² Online services are less exposed to capacity restrictions than products or services offered offline. Online platforms and networks often generate high economies of scale, as their setting up and operation have high fixed costs but low variable costs. On the other hand, economies of scale may also bolster specialization and learning processes by the platform operator, which may be difficult to reproduce by market entrants at acceptable costs and/or within an acceptable period of time.

D. Access to Competitively Relevant Data

Pursuant to Section 18(3a) no. 4 ARC, the transaction parties’ access to competitively relevant data shall also be reviewed in the course of the dominance assessment. Such access to competitively relevant data must not be confused with the term “competitively relevant information” known from cartel investigations. Instead, this criterion aims at covering competition concerns arising from the ever increasing amount of personal data generated by the use of online and particularly mobile services, which may be further compounded by network effects (big data).

³⁹ Ibid.

⁴⁰ Federal Cartel Office and Autorité de la Concurrence, May 10, 2016, Competition Law and Data, available at: http://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf?__blob=publicationFile&v=2.

⁴¹ Federal Parliament Document (*Bundestags-Drucksache*) BT-Drs. 18/10207, p. 49.

⁴² Section 18(3a) no. 3 ARC.

Difficulties in reproducing or acquiring personal data of similar breadth and depth may result in high barriers to enter the market and, respectively, in the marginalization of competitors. Nevertheless, the mere control over user data is not a decisive factor for the existence of market power. The FCO has to make a case-by-case assessment including other factors such as the nature of the data collected, their significance for competition and the possibility to duplicate them.

E. Competitive Pressure Due to Innovation Potential

A further factor to be taken into consideration is the competitive pressure generated by high innovation potential. This is of particular relevance in digital markets where innovation cycles tend to be shorter, and innovative newcomers may disrupt or even terminate existing markets and generate new markets. Nevertheless, the abstract innovation potential of the internet and the possibility of disruptive changes in the market are not sufficient to exclude the possible emergence of market dominance in digital markets. Similar to the “old economy,” transaction parties will have to plausibly demonstrate that the parties’ current market position can (and probably will) be contested in the forecast horizon of 3-5 years usually applied in merger review.

V. CONCLUSION

The most prominent change of the 9th Amendment Package to the ARC, which is already affecting transactions in both the digital as well as the analogue world, is the introduction of a new transaction value-based merger control threshold. Even more lasting effects may arise from the additional criteria that have been introduced for assessing potential dominance of multi-sided markets and platforms. Although these changes to German antitrust law went into force merely six months ago, further changes are already on the horizon. In their exploratory negotiations for a new coalition government, the Christian Democratic CDU/CSU and the Social democrats of the SPD agreed that “a further modernization of antitrust laws with respect to digitalization and globalization is necessary.”⁴³ Germany’s former national soccer coach Sepp Herberger once said: “After the game is before the game.” This apparently also applies to adapting German antitrust law to the challenges of the digital economy.

43 CDU/CSU/SPD, Results of Exploratory Negotiations, Final Version, January 12, 2018 available at: https://www.cdu.de/system/tdf/media/dokumente/ergebnis_sondierung_cdu_csu_spd_120118_2.pdf?file=1&type=field_collection_item&id=12434 (German only).

