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Delineating Digital Markets under EU Competition Law: Challenging or Futile?

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Market definition is commonly the basis for all further antitrust analysis. However, digital market environments pose multiple challenges to traditional market definition under EU competition law: they exhibit short product cycles, ample product differentiation, bring about price transparency, know many different forms of multi-sided platforms, and are often characterized by competition for the market rather than in the market as well as by direct and indirect network effects. The article presents some of the challenges that the e-economy poses for market definition and then discusses the most-debated of these: multi-sided platforms and how they can meaningfully be conceptualized as antitrust relevant markets. Further issues which antitrust must take into account in order to provide a meaningful basis for competition law analysis in digital markets relating to market definition analysed are product differentiation, the online/offline paradigm, and competition in innovation. The article concludes that EU competition law has yet to reach a common understanding on how market definition should proceed in digital markets – but first tentative steps have been made by courts, competition authorities and academics.

1. INTRODUCTION

The definition of the relevant product and geographic market is one of competition law's basic analytical tools. In fact, market definition has been identified as 'a key instrument in all areas of competition policy.'¹ The reason for this overbearing importance is the fact that a company's commercial behaviour cannot properly be legally assessed in the abstract, but only with reference to the market(s) the company is active on: the relevant market(s). Market definition is thus the basis for subsequent antitrust analysis, and importantly also the basis for the finding (or not) of market power.²

The legal tests for defining relevant markets were developed against the background of static market conditions.³ Static markets are characterized by relatively stable supply and

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¹ Randy Brenkers and Frank Verboven, 'Market Definition with Differentiated Products – Lessons from the Car Market' in Jay P Choi (ed), *Recent Developments in Antitrust: Theory and Evidence* (MIT Press 2007) 153.

² Recently, there has been growing criticism concerning the usefulness of market definition in antitrust law as such; see for instance Louis Kaplow, 'Why (Ever) Define Markets?' (2010) 124 *Harvard L Rev* 438; Louis Kaplow, 'Market Definition: Impossible and Counterproductive' (2013) 79 *Antitrust L J* 361; Richard S Markovits, 'On the Inevitable Arbitrariness of Market Definitions' (2002) 47 *Antitrust Bulletin* 571; Richard S Markovits, 'Why One Should Never Define Markets or Use Market-Oriented Approaches to Analyze the Legality of Business Conduct under U.S. Antitrust Law: My Arguments and a Critique of Professor Kaplow's' (2012) 57 *Antitrust Bulletin* 747. This criticism will not be directly addressed in the present paper.

³ Michael J Mandel, 'Antitrust for the Digital Age' *Businessweek Online* (15 May 2000).

demand structures, and little or only incremental innovation. In this way, they are quite different from what have been termed Schumpeterian markets – dynamic, innovative markets that are characterised by important, often sudden and radical innovation that has a tendency to perturb old markets and thereby overthrow old market definitions. This type of innovation has long been held to have far more positive effects on competition – and thus on long-term consumer welfare – than is possible in more static markets.⁴ In recent years, technical progress has enabled the development of several industries that are the archetype of innovative, Schumpeterian, markets. These are often jointly referred to as ‘digital markets’, the ‘e-economy’, ‘new economy’, or ‘internet markets’. In the following, they will be called digital markets. They comprise diverse commercial endeavours such as internet search engines, smartphone and tablet applications (‘apps’), online advertisements, a wide array of online sales (e-commerce) and social networking. Digital markets have already gained enormous economic significance: To take the example of online retailing, this accounted for over 9% of all retail sales within the EU in 2016. And EU online retailing is still growing by about 17% per year.⁵ It is therefore not surprising that the creation of a European digital single market is one of the priorities of the current European Commission⁶ and one of the pillars of its Europe 2020 strategy,⁷ for the digital market environment promises many opportunities for the consolidation of a truly European single market.

While digital markets open up new possibilities to consumers and customers at large, they also enable companies to engage in potentially anti-competitive practices such as geo-blocking or re-routing, outright bans on online selling, the use of certain platforms, requirements regarding brick-and-mortar shops, language requirements for websites, personal pricing, etc.⁸ In addition, well-known anti-competitive practices, such as tying, predatory pricing, resale price maintenance and information exchanges, can also easily take place in the digital marketplace. The European Commission launched an antitrust sector enquiry into e-commerce in May 2015 in order to further explore antitrust issues in the digital marketplace.⁹ This sector enquiry is based on the insight that competition law has a crucial role to play for keeping digital markets open and competitive.¹⁰ This leads to the question which role (traditional) market definition – as the basis for antitrust

⁴ Joseph A Schumpeter, *Capitalism, socialism and democracy* (5th edn, Allen & Unwin 1981) 85 f.

⁵ Centre for Retail Research, ‘Online Retailing: Britain, Europe, US and Canada 2016’ <<http://www.retailresearch.org/onlineretailing.php>> accessed 27 February 2017.

⁶ On this, see European Commission, ‘A Digital Single Market Strategy for Europe’ (6 May 2015) COM(2015) 192 final.

⁷ See European Commission, ‘Europe 2020: A strategy for smart, sustainable and inclusive growth’ (3 March 2010) COM(2010) 2020 final; European Commission, ‘A Digital Agenda for Europe’ (26 August 2010) COM(2010) 245 final/2.

⁸ On this, see Viktoria HSE Robertson, ‘Online Sales under the European Commission’s Vertical Agreements Block Exemption Regulation – Part I’ [2012] ECLR 132; Viktoria HSE Robertson, ‘Online Sales under the European Commission’s Vertical Agreements Block Exemption Regulation – Part II’ [2012] ECLR 179.

⁹ European Commission, ‘Decision initiating an inquiry into the e-commerce sector pursuant to Article 17 of Council Regulation (EC) No 1/2003’ (6 May 2015) C(2015) 3026 final. For first results of this enquiry, see European Commission, ‘Preliminary Report on the E-commerce Sector Inquiry’ (15 September 2016) SWD(2016) 312 final.

¹⁰ This is also recognized by the Commission, see European Commission (n 6) 6.

analysis – can play in competition law assessments taking place in these digital markets, and to what extent market definition can and indeed must be adapted to these new environments.

The commercial activities summarized under the term digital markets share a variety of characteristics that challenge conventional antitrust market definition, as will be shown below (section 2). The fact that ‘competition agencies and courts have not yet established a clear policy on defining the markets for internet businesses’¹¹ represents a particular problem for competition law.

After analysing the various challenges that digital markets pose for antitrust market delineation in some more detail, this contribution will assess how EU competition law has tackled these challenges in practice when delineating relevant digital markets. Some concluding thoughts will highlight important areas for further developing market definition in the ambit of the digital marketplace.

2. DIGITAL MARKETS AS A CHALLENGE TO CONVENTIONAL MARKET DEFINITION

As outlined above, several characteristics of digital markets provide a challenge for conventional market definition.¹² Most of these challenges relate to the product dimension of the relevant market, rather than to its geographic dimension. The following, of course, represents a generalisation, as not all these characteristics will be present in all kinds of digital markets. However, it allows an overview of the difficulties market definition might be faced with.

Digital markets rely on innovation to a large extent and will frequently exhibit short product cycles and a fast pace.¹³ In addition, market entry barriers are often low.¹⁴ These characteristics go hand in hand with the need to frequently re-define antitrust markets, as an already defined antitrust market may soon become outdated and thus no longer conform to commercial realities.¹⁵ While traditional market definition relies on static demand and supply side substitutability, and thereby is invariably biased towards static competition, market definition becomes increasingly difficult – and underlies rapid change – where the innovative market brings forth various substitutes in quick succession. This can lead to ‘conceptual difficulties.’¹⁶ Dynamic competition is difficult

¹¹ Rolf H Weber, ‘Competition Law Issues in the Online World’ (20th St. Gallen International Competition Law Forum, 4 & 5 April 2013) 2.

¹² Similarly, see Michael R Baye, ‘Market Definition and Unilateral Competitive Effects in Online Retail Markets’ (2008) 4 JCL&E 639, 640 (‘the nature of online competition affects a number of the fundamental ingredients required for defining a relevant market.’).

¹³ Gary Hewitt, ‘Background Note’ in OECD (ed), *Policy Roundtable: Merger Review in Emerging High Innovation Markets* (2002) 20.

¹⁴ Monopolkommission, ‘Wettbewerbspolitik: Herausforderung digitale Märkte’ (Sondergutachten 68, 2015) para 19.

¹⁵ Robert Pitofsky, ‘New Definitions of Relevant Market and the Assault on Antitrust’ (1990) 90 Columbia L Rev 1805, 1812; Monopolkommission (n 14) para 28.

¹⁶ Ulrich Schwalbe and Frank Maier-Rigaud, ‘Background Note’ in OECD (ed), *Policy Roundtable: Market Definition* (2012) 57.

to factor into a traditional market definition, as it can require prospective analysis and perhaps even the finding of future markets. Once one has defined the relevant market(s), the antitrust law analysis regarding a case is often directly related to the characteristics of the relevant market(s). If the relevant market underlies multiple sudden changes, however, then the legal analysis will perhaps need to be re-evaluated over and over again, confronting parties with considerable legal uncertainty.

Another challenge relates to the product differentiation that technology allows for in a wide array of digital market settings, be it through customized retail sales and online advertisements or through digital services tailored to the customer's needs. Product differentiation has long been known to constitute a difficult aspect for antitrust market definition.¹⁷ It particularly leads to the question to which degree partial substitutability – be it on the demand or supply side – should be factored into an antitrust market definition.

Multi-sided markets or platforms have attracted considerable attention in competition law because of the many antitrust questions that arise from them – including regarding market definition.¹⁸ Multi-sided markets bring together two (or more) distinct product markets that share a link which makes it impossible to consider the one without also considering the other.¹⁹ While this phenomenon is in no way limited to digital markets – one merely need to think of newspaper advertising or credit cards – such platforms are particularly frequent in the new economy. Apart from the well-known example of online search engines, other examples include online trading platforms, online video-gaming, or online travel agencies. In multi-sided markets, it would be quite erroneous to distinguish several isolated product markets, as they cannot be properly understood in isolation.²⁰ Another issue that arises in platform markets are scenarios in which a digital service is provided for free to one group of customers. The gratuity of the service is usually limited to one side of a platform, while another customer group – e.g. companies that place advertisements on the platform – has to bear the costs. This leads to the question whether these supposedly free services can be factored into market definition.

Network effects, both direct and indirect, also play an important role in many digital markets, especially but not exclusively in the multi-sided markets just discussed.²¹ In the

¹⁷ Brenkers and Verboven (n 1); Malcolm B Coate, 'Market Definition in Differentiated Goods When the Final Consumer Buys the Good: Insights from the *H&R Block* Case' (2014) 59 *Antitrust Bulletin* 619; James A Keyte, 'Market Definition and Differentiated Products: The Need for a Workable Standard' (1995) 63 *Antitrust L J* 697; Daniel L Rubinfeld, 'Market Definition with Differentiated Products: The Post/Nabisco Cereal Merger' (2000) 68 *Antitrust L J* 163.

¹⁸ David S Evans, 'Background Note' in OECD (ed), *Policy Roundtable: Two-Sided Markets* (2009) 24 (referring to market definition as one of the great challenges in multi-sided markets).

¹⁹ For slightly different definitions of two-sided markets in industrial organization, see Jean-Charles Rochet and Jean Tirole, 'Two-Sided Markets: A Progress Report' (2006) 37 *RAND J of Economics* 645, 645; Marc Rysman, 'The Economics of Two-Sided Markets' (2009) 23 *J of Economic Perspectives* 125, 126; David S Evans and Richard Schmalensee, 'The Antitrust Analysis of Multisided Platform Businesses' in Roger D Blair and D Daniel Sokol (eds), *The Oxford Handbook of International Antitrust Economics* (vol 1 2015) 404.

²⁰ On this see further below, section 3.1.

²¹ On network effects in competition law, see Julia Pohlmeier, *Netzwerkeffekte und Kartellrecht* (Nomos 2004) esp 29 ff.

majority of social networks, users derive value from an increased number of other users (direct network effect). The more users a social network has, the more advertisers will be interested in advertising on this platform – thus generating value for the service provider (indirect network effect).²² These network effects can have an important impact on market definition, as the products of successful companies in markets with strong network effects may not be readily interchangeable with similar but less successful products. Ultimately, this has repercussions on the assessment of market power in the relevant market(s).

Many digital industries are strongly innovation-driven and can be referred to as Schumpeterian markets, ie markets in which competition is not so much in the current market, but for the future market.²³ This can have the result that the ‘winner takes all or most of the market.’²⁴ Nevertheless, this does not mean that competition is not at work in such innovative environments – on the contrary: As Schumpeter asserted, dynamic competition ‘acts not only when in being but also when it is merely an ever-present threat.’²⁵ Market shares in such innovative markets may be highly volatile and less conclusive as regards sustainable market power.²⁶ On top of that, price will often not be the most important competitive parameter in Schumpeterian markets. Instead, competition in innovation may play a crucial role, and potential competition – where discernible – can be an important market force to be reckoned with.²⁷

While the previous challenges all related to the product dimension of antitrust markets, digital markets also provide some challenges regarding their geographic dimension. The digital economy allows companies to reach customers far beyond the traditional geographic borders that constrain business in the offline/analogue world. One can therefore assert that the online marketplace makes geographic location irrelevant to some degree, especially in relation to digital services.²⁸ In digital markets, instead of geographic location it is often language and culture that may represent an access barrier for customers. In some areas, however, such as in online supermarkets, geographic location necessarily continues to play a role. Where online and offline markets overlap, e.g. in the case of online and brick-and-mortar travel agencies, the competitive relationship between the online and the offline world will need to be factored into the market definition.

²² Monopolkommission (n 14) paras 37 f; *Google/DoubleClick* (Case COMP/M.4731) Commission Decision [2008] paras 303–304.

²³ Similarly see Josef Drexler, ‘Anticompetitive Stumbling Stones on the Way to a Cleaner World: Protecting Competition in Innovation without a Market’ (2012) 8 JCL&E 507, 510.

²⁴ Schwalbe and Maier-Rigaud (n 16) 58.

²⁵ Schumpeter (n 4) 85 f.

²⁶ Schwalbe and Maier-Rigaud (n 16) 58.

²⁷ Monopolkommission (n 14) para 52.

²⁸ On this conclusion see also *ibid* para 190.

3. ANTITRUST MARKET DEFINITION IN DIGITAL MARKETS: THEORY AND PRACTICE

Because of the great diversity of commercial activities that are understood to form part of the digital economy, it is not possible to address all the challenges that the digital economy poses for antitrust market definition. Therefore, we will in the following focus on four issues that are particularly relevant to many kinds of digital markets in the EU: multi-sided markets or platforms, product differentiation, the online/offline paradigm, and competition in innovation. It will be seen how EU competition law has – or has not – responded to the challenges briefly outlined above (section 2) when delineating relevant markets in the digital economy, and which impact the specificity of digital markets could or should have on market definition in the future.

3.1. Digital platforms or multi-sided digital markets

3.1.1. Issues for market definition

Platforms or multi-sided markets are a feature not limited to digital markets,²⁹ but – as pointed out above – they are particularly often present in the digital economy.³⁰ In fact, it has been held that the theory of multi-sided markets ‘offers a unique framework to understand the dynamics of market competition’ in the digital economy.³¹ The fact that a market is two-sided can be particularly relevant for antitrust market definition,³² but there may also be cases in which a market’s two-sidedness has no specific antitrust implications.³³

Platforms are characterized by the existence of cross-platform externalities, also termed indirect network effects.³⁴ In the digital marketplace, one side of the market frequently receives services for free, while another side pays for the services provided. Well-known examples for such platforms are advertisement-based social networks such as Facebook

²⁹ For a criticism of the ‘occasional view’ that primarily associates two-sided markets with the digital marketplace see Mark Armstrong, ‘Two-Sided Markets: Economic Theory and Policy Implications’ in Choi (n 1) 42. For the view that many businesses in the digital economy are based on multi-sided markets, see Thomas Hoppner, ‘Defining Markets for Multi-Sided Platforms: The Case of Search Engines’ (2015) 38 *World Competition* 349, 349.

³⁰ For the first articles in industrial organization relating to two-sided markets, see Bernard Caillaud and Bruno Jullien, ‘Chicken & egg: competition among intermediation service providers’ (2003) 34 *RAND J of Economics* 309; David S Evans, ‘The Antitrust Economics of Multi-Sided Platform Markets’ (2003) 20 *Yale J on Regulation* 325; Jean-Charles Rochet and Jean Tirole, ‘Platform Competition in Two-Sided Markets’ (2006) 1 *J of the European Economic Association* 990; Mark Armstrong, ‘Competition in Two-Sided Markets’ (2006) 37 *RAND J of Economics* 668. As a recent article commented, economic literature in two-sided markets ‘is still in a state of flux.’ Dirk Auer and Nicolas Petit, ‘Two-Sided Markets and the Challenge of Turning Economic Theory into Antitrust Policy’ (2015) 60 *Antitrust Bulletin* 426, 428 (see also p 427 for the theory’s particular relevance to the digital economy). Nevertheless, it has already had important repercussions on antitrust law.

³¹ Auer and Petit (n 30) 457.

³² Rysman (n 19) 138; Florence Thépot, ‘Market Power in Online Search and Social Networking: A Matter of Two-Sided Markets’ (2013) 36 *World Competition* 195, 197.

³³ Evans (n 18) 25.

³⁴ Auer and Petit (n 30) 429.

and LinkedIn, advertisement-based online search engines such as Google and Yahoo, advertisement-based e-mail services such as Gmail and Outlook (formerly Hotmail), and comparison shopping engines operating under various business models, such as Geizhals (Austria, Germany) – which is also known as Skinflint (UK) or Cenowarka (Poland) –, Kelkoo (UK), or Twenga (France). In addition, there are booking portals for hotels, flights or other traveling services such as Booking.com and HRS that rely on fees from hotel owners, and various online platforms that bring together buyers and sellers, such as Amazon Marketplace, eBay, or the app-based Shpock.

As the two (or more)³⁵ sides of a platform are inextricably connected,³⁶ the German Monopolies Commission has cautioned that it is not possible to consider each side of the platform as a separate market.³⁷ This would inevitably lead to short-sighted results. However, in practice this is what often occurs, as is demonstrated by the case law discussed below. In addition, a platform may compete not only with other similar platforms, but also with single-sided companies or, on one side of its business, with one side of another platform.³⁸ This competitive structure makes any competition law assessment of digital platforms complex. It also means that the calculation of market shares may not give one any sense of a platform's market power, as the market shares might not be a good indicator for both sides or either side of the market because they do not reflect the interconnection between the market sides. Consequently, the application of market share thresholds to platforms has been called entirely misguided.³⁹ This is problematic in the European Union, where market share thresholds are used in order to determine the applicability of legally binding Block Exemption Regulations,⁴⁰ but also in non-binding Commission guidance.⁴¹

3.1.2. Attempts at incorporating multi-sided markets in the case law

The European Commission has already dealt with a number of cases concerning online platforms, and has made first assessments of the market(s) at issue in these cases. In a submission to the OECD, the Commission held that the specificities of two-sided

³⁵ In the case of search engines, for instance, there is a third side to the market: the websites that want to be found through the service; see also Monopolkommission (n 14) para 188; Hoppner (n 29) 365.

³⁶ Armstrong (n 30) 669 ('to compete effectively on one side of the market, a platform needs to perform well on the other side').

³⁷ Monopolkommission (n 14) para 58, containing further references.

³⁸ Evans (n 18) 28.

³⁹ Monopolkommission (n 14) paras 56 f.

⁴⁰ E.g. Commission Regulation (EU) 330/2010 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices [2010] OJ L102/1, art 3(1) – market share threshold of 30% for the supplier and the buyer; Commission Regulation (EU) 316/2014 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of technology transfer agreements [2014] OJ L93/17, art 3 – aggregate market share threshold of 20% for competitors, individual market share threshold of 30% for non-competitors.

⁴¹ E.g. Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty [2004] OJ C101/81, para 52(a) – aggregate market share threshold of 5%, combined with a turnover threshold of € 40 million; Notice on agreements of minor importance which do not appreciably restrict competition under Article 101(1) of the Treaty on the Functioning of the European Union [2014] OJ C291/1, para 8 – aggregate market share threshold of 10% for competitors, 15% for non-competitors.

markets ‘will generally affect each step of standard antitrust analysis, [starting with] product market definition.’⁴²

In the *Google/DoubleClick* merger decided in March 2008, the Commission acknowledged that ‘online advertising is a two-sided market characterized by network effects’; therefore, it considered economies of scale and access to user data as essential for commercial success.⁴³ When discussing intermediation services, the Commission also characterized advertisement networks as ‘a two-sided platform serving (i) publishers (websites) that want to host advertisements, and (ii) advertisers that want to run ads on those sites.’⁴⁴ This shows that the Commission was aware of the concept of two-sided markets when carrying out its competition law assessment, and also tried to take it into account. Nevertheless, it did not mention two-sided markets when actually defining the relevant product market.⁴⁵

In a more recent merger decision dating from October 2014, *Facebook/WhatsApp*, the Commission made a number of interesting findings relating to market definition in the digital world. Several relevant markets were at issue in this case – two of these related to digital platforms. To begin with, the Commission analysed Facebook’s social networking function. The Commission then looked at online advertising in particular, holding that online advertising was its own relevant product market and separate from offline advertising.⁴⁶ It did not consider a broader platform market of ‘social networking *cum* online advertising’, as two-sided market theory might suggest.

Market definition issues related to digital platforms have not only reached the European Commission, but also competition authorities in its Member States applying EU competition law. In Germany, the Bundeskartellamt is currently investigating whether Facebook has relied on its terms of use in order to abuse its dominant position on the market for social networks under German and EU competition law.⁴⁷ In another case the Bundeskartellamt held that hotel portal services, ie the arranging of hotel room bookings, constitute their own relevant market. Although the authority recognized that this was a two-sided market characterized by network effects,⁴⁸ it found that its market definition in this case did not need to encompass the user side.⁴⁹ This finding was supported by the Higher Regional Court Düsseldorf.⁵⁰ Importantly, the Court affirmed

⁴² ‘European Union’ in OECD (ed), *Policy Roundtable: Two-Sided Markets* (2009) 158.

⁴³ *Google/DoubleClick* (n 22) para 290.

⁴⁴ *ibid* para 20.

⁴⁵ Neither did it two years later in the *Microsoft/Yahoo! Search Business* merger, see *Microsoft/Yahoo! Search Business* (Case COMP/M.5727) Commission Decision [2008] paras 47, 87, 100 (recognizing an online search engine as a two-sided platform, but ultimately settling on online advertising as the relevant market).

⁴⁶ The Commission also held that ‘[w]hether segments of that market constitute relevant markets in their own right can be left open for the purposes of this decision.’ *Facebook/WhatsApp* (Case COMP/M.7217) Commission Decision [2014] para 79.

⁴⁷ Bundeskartellamt, *Bundeskartellamt initiates proceeding against Facebook on suspicion of having abused its market power by infringing data protection rules* (Press release, 2 March 2016).

⁴⁸ *HRS* (Case B 9-66/10) Bundeskartellamt [2013] para 81.

⁴⁹ *ibid* para 71.

⁵⁰ *HRS* (Case Kart 1/14 (V)) Higher Regional Court Düsseldorf [2015] para 43.

that in cases in which a service is offered against payment on the one side (for hotels) and for free on the other (for hotel bookers), only that side in which a payment occurs forms part of the market. The Court insisted that the side of the market which receives the services for free can nevertheless have a decisive influence on the market conditions, in particular in innovation-driven markets such as digital ones. The Court also highlighted network effects that can be at play in such situations.⁵¹ Against this background, it is rather surprising that the Court considered it appropriate to limit market definition to one side of the platform. In the end, this narrow market definition led to the finding of an abuse of dominance.

Three commitment decisions relating to Booking.com by the national competition authorities of France, Italy and Sweden, all issued in April 2015, also adopted the view that online hotel reservation services constituted the relevant market.⁵² In its infringement decision against Booking.com of December 2015, the German Bundeskartellamt again found the relevant antitrust market to be hotel portal services.⁵³ In its decision, it highlighted that its market delineation coincided with that of the three other national competition authorities.⁵⁴

In a recent English case concerning Google's map services, the latter was accused of abusing its dominant position in the markets of general search engines and of online search advertising.⁵⁵ Mr Justice Roth remarked that both general search engines and online maps provide their services for free to users and represent 'classic examples of what economists refer to as multi-sided markets.'⁵⁶ While the Court held those markets to be distinct, it also found that they were related to one another and that it did not have to delineate them with precision.⁵⁷

This English case is particularly interesting in the face of the statements of objections that the European Commission sent to Google, the first in April 2015,⁵⁸ the second in April 2016⁵⁹ and the most recent in August 2016.⁶⁰ These cases are likely to become cases in point highlighting the difficulty of defining the relevant market in the digital market

⁵¹ *ibid.*

⁵² *Booking.com* (Case 15-D-06) Autorité de la concurrence [2015] para 9 ('marché de la réservation hôtelière en ligne'); *Booking.com* (Case 1779) Autorità Garante della Concorrenza e del Mercato [2015] para 9 ('mercato dei servizi di prenotazione alberghiera online'); *Booking.com* (Case 596/2013) Konkurrensvirket [2015] para 15 ('the relevant market is the market for the provision of online travel agency services with respect to hotels located in Sweden').

⁵³ *Booking.com* (Case B 9-121/13) Bundeskartellamt [2015] paras 129, 130.

⁵⁴ *ibid* paras 146-147.

⁵⁵ *Streetmap v Google* (Case HC-2013-000090) High Court of Justice (Chancery Division) [2016] paras 4, 35.

⁵⁶ *ibid* para 8.

⁵⁷ *ibid* para 15.

⁵⁸ European Commission, *Antitrust: Commission sends Statement of Objections to Google on comparison shopping service; opens separate formal investigation on Android* (IP/15/4780, 15 April 2015).

⁵⁹ European Commission, *Antitrust: Commission sends Statement of Objections to Google on Android operating system and applications* (IP/16/1492, 20 April 2016).

⁶⁰ European Commission, *Antitrust: Commission takes further steps in investigations alleging Google's comparison shopping and advertising-related practices breach EU rules* (IP/16/2532, 14 July 2016).

environment, including in online search and online search advertising.⁶¹ They will give the Commission an opportunity to further develop its competition law approach to digital platform markets. From what can be learned from the Commission's press releases, the Commission holds the view that general online search and comparison shopping constitute the two relevant product markets in the first of the two investigations.⁶² In the Android investigation, it holds that Google enjoys considerable market power with market shares beyond 90% in the EEA in the following markets: general internet search services, licensable smart mobile operating systems, and application stores for the Android mobile operating system.⁶³ In the third investigation relating to Google's AdSense service, Google is accused of protecting its 'dominant position in online search advertising' through anti-competitive measures.⁶⁴ The Commission has not yet provided any details regarding its in-depth analysis in these cases, but will most certainly need to address issues related to the two-sidedness of online search engines, comparison shopping websites and online search advertising when and if it issues an infringement decision.⁶⁵ If appealed, such a decision would also allow the General Court to weigh in on these important issues – and ultimately perhaps the Court of Justice itself.

3.1.3. Analysis and discussion

The theory of two-sided markets was framed by economists. However, what matters in the present context is how it can be made fruitful for competition law. As one author has suggested, while economists may still work on further developing this theory, 'perhaps we [competition lawyers] know all we need to know about two-sided platforms in order to refine our legal approach to them.'⁶⁶ Rather than letting economists flesh out antitrust law in two-sided markets, 'the time is ripe for the law to take the driver's seat in these discussions.'⁶⁷

From the European case law discussed above, it can easily be seen that the delineation of two-sided digital markets for the purposes of competition law is still in its infancy. While recent decisions demonstrate a growing awareness concerning this issue, a straightforward analytical approach to delineating digital platform markets has yet to emerge. It is probably due to this void that the competition authorities' statements regarding the two-sided nature of the markets at issue are often somewhat obscure. In addition, there seems to be a trend amongst courts and authorities to rely on one side of

⁶¹ Predicting this difficulty, see Joyce Verhaert, 'The challenges involved with the application of article 102 TFEU to the new economy: a case study of Google' (2014) 35 ECLR 265.

⁶² European Commission, *Antitrust: Commission sends Statement of Objections to Google on comparison shopping service* (MEMO/15/4781, 15 April 2015).

⁶³ European Commission (n 59).

⁶⁴ European Commission (n 60).

⁶⁵ Since the writing of this article, the Commission has issued its infringement decision in the first case involving Google. However, the decision has not yet been made public. On this, see European Commission, 'Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service' (IP/17/1784, 27 June 2017).

⁶⁶ Alfonso Lamadrid de Pablo, 'The double duality of two-sided markets' (2015) 64 Competition L J 5, 6.

⁶⁷ *ibid.*

a platform in antitrust analysis, or even to assert that a precise market definition is not required in order to carry out a meaningful analysis.

Despite what European courts and competition authorities have found in the hotel booking portals cases, the fact that one side of the market frequently receives services for free in digital platform markets – e.g. internet search, social networking, hotel booking, price comparison – should not exclude these market sides from competition law scrutiny.⁶⁸ Within the framework of a two-sided platform, one quickly comes to realize that those services are far from free: advertisers or sellers subsidize them. Therefore they can and should very well be subject to competition law enforcement.⁶⁹ When defining the relevant market, the (allegedly) free side of the market can either form part of the platform market (as the relevant market) consisting of the two market sides; or it could be conceptualized as one of the two separate relevant markets that together form the platform. Some economists have argued that either conceptualization could lead to the same results, while others advocate a different conceptualization depending on the transactional nature of the platform (on this see immediately below).⁷⁰

The question thus remains which digital markets should be understood as multi-sided for competition law purposes,⁷¹ and how these should be delineated. Several voices in the literature have come to realize that two-sided markets – especially digital ones – require some antitrust attention. The conclusions that scholars have reached on market definition, however, differ from each other. Thépot has suggested a two-step approach in order to define the relevant antitrust market for two-sided markets. In a first step, one defines the two (or more) sides of the market. In a second step, the two-sidedness of the market is taken into account, and the platform is analysed as a market in its own right. The second step is particularly important because ‘[t]he elasticity of demand on either side is intertwined with that on the other side.’⁷² Verhaert has also argued that defining the relevant market for two-sided platforms requires a careful analysis of

⁶⁸ Of course, two-sided markets are not the only scenarios in which products are offered for free. ‘Free’ products might also be ‘given away’ in order to promote the sales of another (companion) product or to induce customers to upgrade from a free to a full-function version of a product; see David S Evans, ‘The Antitrust Economics of Free’ (2011) 7 Competition Policy International 71, 71. Also arguing that antitrust market definition must be adapted – but not left aside – in free goods, see Michal S Gal and Daniel L Rubinfeld, ‘The Hidden Costs of Free Goods: Implications for Antitrust Enforcement’ (January 2015) NYU Law & Economics Research Paper Series 14-44, 33.

⁶⁹ For a more restrictive conclusion, but in a similar vein, see Miguel Sousa Ferro, ‘“Ceci n’est pas un marché”: Gratuité et concurrence’ [2015] Concurrences, para 118. Also concluding that organic search results must be seen as part of a platform rather than a stand-alone antitrust market, see James D Ratliff and Daniel L Rubinfeld, ‘Is there a Market for Organic Search Engine Results and Can Their Manipulation Give Rise to Antitrust Liability?’ (2014) 10 JCL&E 517, 535-536.

⁷⁰ Evans (n 68) 84.

⁷¹ On the different approaches to this question see the overview in Auer and Petit (n 30) esp table 1 on p 439. For an entirely different view emphasizing user data as an input, see Giacomo Luchetta, ‘Is the Google Platform a Two-Sided Market?’ (2014) 10 JCL&E 185, 207 (himself citing Filistrucchi et al.). On data as a production factor see Inge Graef, ‘Market Definition and Market Power in Data: The Case of Online Platforms’ (2015) 38 World Competition 473, 477. On the view that search engines could be conceptualized as a primary and a secondary market, see Boris P Paal, ‘Internet-Suchmaschinen im Kartellrecht’ [2015] GRUR Int 997, 996.

⁷² Thépot (n 32) 205-206.

interchangeability patterns on both market sides of the platform, but at the same time one needs to ‘capture the link between the two sides of the market.’⁷³ In that sense, platform markets can only properly be defined with a picture of the whole operation. While it is possible that platforms compete with one another on one of the market sides, e.g. the advertising side, this does not have to be true for the second, e.g. social networking or internet search.

Yet other scholars have suggested a distinction between transaction and non-transaction two-sided markets when delineating antitrust markets.⁷⁴ In digital markets, one will frequently encounter advertising-based, non-transaction markets: Google’s search functionality and Facebook are the most prominent examples. However, one can also find many digital platforms that operate on a transaction basis, most notably various booking portals, retail platforms and the like. This approach gives a thought-provoking impulse for conceptualizing different kinds of multi-sided digital markets. Yet, in the interest of developing the most straightforward approach possible, and bearing in mind the findings of Evans,⁷⁵ it might be preferable to factor in the transactional nature of the two-sided market at a later stage of the antitrust analysis. This can prevent any differences in opinion regarding the transactional nature of the market, and allows for a streamlined market definition approach to multi-sided platforms.

In the end, given the multiple challenges associated with delineating the relevant antitrust market in multi-sided digital platform markets, one might have to conclude that at least for the time being antitrust markets can only be delineated approximatively in these industries.⁷⁶ There are multiple reasons for this. The missing pricing on one market side makes any price-based economic assessments very vulnerable in the digital marketplace.⁷⁷ One of these assessments is the SSNIP test, which can only be applied to multi-sided markets with a considerable tweak, especially where one user side receives services for free.⁷⁸ Demand between the two market sides is intertwined, thus necessarily affecting substitutability patterns and, ultimately, market definition.⁷⁹ For advertisement-based digital platforms, such as social networks and search engines, market definition cannot exclusively be based on their functionality for users, nor on their advertising side. A more comprehensive picture of the relevant market is needed in order to assess competition concerns in these market environments. In addition, for trading platforms such as eBay

⁷³ Verhaert (n 61) 269–270 (direct quote on p 270). Similarly see Nicolo Zingales, ‘Product Market Definition in Online Search and Advertising’ (2013) 9 *Comp L Rev* 29, 33 (‘capturing the peculiar relationship between the different sides of these markets is a crucial step for product market definition’).

⁷⁴ For more details see Lapo Filistrucchi and others, ‘Market Definition in Two-Sided Markets: Theory and Practice’ (2014) 10 *JCL&E* 293, 298, 300–302.

⁷⁵ Evans (n 68) 84.

⁷⁶ Monopolkommission (n 14) para 294; David S Evans and Michael Noel, ‘Defining Antitrust Markets When Firms Operate Two-Sided Platforms’ (2005) 2005 *Columbia Business L Rev* 667, 697 (stating that two-sided platforms ‘are sufficiently complex that mechanical market definition exercises are particularly likely to obscure market realities.’).

⁷⁷ Thépot (n 32) 216.

⁷⁸ Evans (n 18) 36; Filistrucchi and others (n 74) 331–333; Hoppner (n 29) 350; Verhaert (n 61) 269–270.

⁷⁹ David S Evans and Richard Schmalensee, ‘Markets with Two-Sided Platforms’ in ABA Section of Antitrust Law (ed), *Issues in Competition Law and Policy* (2008) 689.

or Amazon Marketplace, it is questionable whether the trading platform itself can constitute the relevant product market. Instead, it is perhaps advisable to focus on the traded product in question in order to define the relevant antitrust market.⁸⁰ This ambiguity regarding market definition has far-reaching consequences, as any subsequent antitrust analysis that explicitly or implicitly builds on market definition remains subject to some uncertainty.

While scholarship has proposed several ways forward for defining digital platform markets, it is now for the competition authorities and the courts to develop a more stringent approach to defining digital platform markets. In the development of this new approach, the market side on which revenue might be generated is a good starting point for defining platform markets, but it should then be extended to any other market sides that can be discerned. A characterisation of the market and its business environment can greatly help in this analysis. Interestingly, the European Commission has engaged in such close characterisation for many years, but has not always based its subsequent market definition on the insights gained. Market power may sometimes exist in the platform as such, but will more often relate to one of the market sides. However, the other market side may act as a factor enhancing or indeed constraining that market power. Overall, one must acknowledge that the very dynamic nature of digital platforms can fairly quickly overthrow succinctly delineated antitrust markets. Attempts such as the recent one by Richard Markovits to frame antitrust law without relying on ‘market-oriented’ analysis, as he calls it,⁸¹ might need to be pursued more heavily with respect to digital platforms in order to give competition policy an overhaul. Nevertheless, and despite the difficulty that market definition is faced with in digital platforms, market definition continues to be a necessary analytical step in antitrust analysis that should be carried out as diligently as possible.⁸²

3.2. Product differentiation

3.2.1. Issues for market definition

Substitution has been recognized as ‘a key concept’ for antitrust market definition,⁸³ as it frames the question of which products compete with the ones under investigation. However, assessing substitutability is only a relatively straightforward exercise where products are sufficiently homogeneous. Where products are differentiated, antitrust market definition is presented with some challenges. For differentiated products, it becomes ‘essential to have a good understanding of the substitution patterns.’⁸⁴ This insight, of course, is not limited to the digital marketplace. However, the digital world

⁸⁰ Monopolkommission (n 14) para 367.

⁸¹ See Richard S Markovits, *Economics and the Interpretation and Application of U.S. and E.U. Antitrust Law* (Springer 2014) 165 ff.

⁸² This is so for a number of reasons, most importantly because market definition can act as a frame of reference for further competition law analysis. On the continued importance of market definition, see Rupperecht Podszun, ‘The Arbitrariness of Market Definition and an Evolutionary Concept of Markets’ (2016) 61 *Antitrust Bulletin* 121, 128-129.

⁸³ Thépot (n 32) 205.

⁸⁴ Brenkers and Verboven (n 1) 154.

offers a plethora of new possibilities for differentiation – and also for substitution – thus increasing the relevance of this issue.

3.2.2. Differentiated digital products in the case law: no established test

Digital communication is one of the areas in which the European Commission has recently discussed differentiated products in the digital marketplace. These were at issue in the mergers of *Facebook/WhatsApp*, *Microsoft/Skype* and *Microsoft/Nokia*. In *Microsoft/Skype* (2011), the digital markets at issue were delineated as consumer communication services and enterprise communication services. However, the Commission left open whether these had to be further segmented; e.g. by functionality, platform, operating system or size of customers. It held that even under the narrowest possible market no competition concerns would arise.⁸⁵

In *Microsoft/Nokia* (2013), the Commission discussed its earlier *Microsoft/Skype* decision where it had stated that consumer communication services should not be distinguished based on functionality, as providers continually increase their own products' functionality.⁸⁶ Segmentation by platform, i.e. by type of device, poses several problems for market definition, as the Commission observed that substitutability is limited due to the differentiated nature of these platforms.⁸⁷ Finally, segmentation by operating system is difficult because there is some availability across operating systems.⁸⁸ Based on its market investigation, the Commission concluded that 'there may be a separate market for consumer communication apps, which could be segmented by platform.'⁸⁹ In the end, the exact market definition was again left open.⁹⁰

In the 2014 merger case of *Facebook/WhatsApp*, the Commission outlined the characteristics of consumer communication services and how various services differ from others. For instance, it stated that there are stand-alone apps or communication services integrated into other services such as social networking; there are various functionalities (one-to-one or group communications, voice, multimedia, video, location sharing, etc) that are not all present in all available services; there are proprietary apps and cross-platform apps; and there are apps that are only available for certain mobile devices but not for others.⁹¹ The notifying party held the view that consumer communication services should constitute the relevant antitrust product market without

⁸⁵ *Microsoft/Skype* (Case COMP/M.6281) Commission Decision [2011] paras 17, 43, 63. On enterprise communications services and the difficulty of precise market definition in these, see already *Cisco/Tandberg* (Case COMP/M.5669) Commission Decision [2010] paras 23 ('it is not necessary to conclude on whether telepresence is a separate market and on whether a distinction should be made between ready-built and custom-built solutions, given that the same conclusion applies irrespective of the above possible distinctions.'). 28 ('the exact definition of the relevant product market for [multi point control units] can be left open, given that the proposed transaction does not raise any competition concerns under any alternative market definition.').

⁸⁶ *Microsoft/Nokia* (Case COMP/M.7047) Commission Decision [2013] para 38.

⁸⁷ *ibid* para 39.

⁸⁸ *ibid* para 40.

⁸⁹ *ibid* para 43.

⁹⁰ *ibid* para 45.

⁹¹ *Facebook/WhatsApp* (n 46) paras 15-18.

sub-segmentation, amongst others due to the fast pace of development in this area.⁹² Ultimately, however, the Commission based its decision on a hypothetical and very narrow market for consumer communication apps for smartphones – but nevertheless managed to leave the actual market definition open.⁹³ The fact that one of the merging parties – WhatsApp – confined its activities to smartphones and did not plan on expanding to other platforms was mentioned as one of the reasons for this narrow market delineation.⁹⁴

Another area in which product differentiation has led to lively debates on antitrust market definition is online advertising. In this context, the questions are whether online and offline advertisement markets form a broader advertisement market or whether they constitute relevant antitrust markets in their own right; whether search and non-search based ads belong to the same relevant market; and whether mobile ads belong to the same relevant market as other online ads. In three recent Commission decisions, this was ultimately left open.⁹⁵

3.2.3. Analysis and discussion

The cases just discussed illustrate the difficulty of defining markets in highly dynamic industries with differentiated products that are often substitutable to some degree. However, they also provide an insight that is very relevant to the digital marketplace: While products might be differentiated and thus only partially substitutable, the high rate of innovation and development will often mean that differentiated products can exert considerable competitive pressure on each other. A broader market definition than sometimes advocated might therefore be in order.

In the EU, the very dynamic nature of differentiated digital markets has led the Commission to recurrently define a broader market and leave the question whether this has to be broken down into specific segments open. Of course, the examples of communication services and online advertisements are not the only areas in which challenging questions relating to differentiated products arise in the digital marketplace. For instance, there is also the issue of one-way substitutability that needs to be addressed. One-way substitutability can pose significant challenges to antitrust market definition when differentiated products are concerned. This particularly seems to affect digital markets. For example, it is questionable to what degree vertical and horizontal online

⁹² *ibid* para 19.

⁹³ *ibid* paras 33-34.

⁹⁴ *ibid* para 21. In May 2016, WhatsApp launched a desktop version of its communication app; see WhatsApp, 'Introducing WhatsApp's desktop app' (10 May 2016) <<https://blog.whatsapp.com/10000621/Introducing-WhatsApps-desktop-app>> accessed 27 February 2017. Most recently, the Commission opened an investigation alleging that Facebook provided it with incorrect or misleading information during the merger proceedings; see European Commission, *Mergers: Commission alleges Facebook provided misleading information about WhatsApp takeover* (IP/16/4473, 20 December 2016).

⁹⁵ See *Google/DoubleClick* (n 22) paras 48-56; *Microsoft/Yahoo! Search Business* (n 45) paras 62-75; *Facebook/WhatsApp* (n 46) para 79; James D Ratliff and Daniel L Rubinfeld, 'Online Advertising: Defining Relevant Markets' (2010) 6 JCL&E 653, 676-685 (discussing the US *Google/DoubleClick* investigation). The latest statement of objections that the European Commission issued to Google also concerns online advertising; see European Commission (n 60).

search are interchangeable: While users of a vertical search engine might turn to horizontal online search if the vertical search engine significantly raises its prices or lowers its performance, the same will not hold true for most users of horizontal online search.⁹⁶ In the same vein, online search advertising could also be further subdivided into horizontal and vertical search advertising.⁹⁷ However, the question remains whether antitrust really requires such very narrow market definitions, or whether they are instruments in order to swiftly satisfy the criterion of dominant market position that can lead to the finding of an abuse of market power or of a merger that requires remedies.

Another issue that has been raised in the online environment is that even though goods retailed online may be identical to each other, the services that retailers offer to their customers may not – effectively leading to varying degrees of product differentiation and imperfect substitution between the same products sold online and offline.⁹⁸

In the face of rapid innovation, one should be careful not to exploit market definition for other policy goals by defining very narrow markets based on some differentiation. On the contrary, high innovation in a given sector may be a reason for finding broader antitrust markets if and when significant substitutability can be observed or reasonably predicted. While no *laissez-faire* approach is advocated here, broader market definitions would avoid over-enforcement which would be to the detriment of innovation and, ultimately, consumer welfare.⁹⁹ Some Commission merger decisions already reflect this policy approach, while the CJEU in *TeliaSonera* has hinted that it favours a more interventionist approach in innovative markets, at least in the context of Article 102 TFEU.¹⁰⁰

3.3. The online/offline paradigm

3.3.1. Issues for market definition

Some digital markets clearly compete with their offline counterparts, while other online markets have no proper substitutes in the offline world. The former is true for many forms of online retailing, where some retailers are now active in both online and offline sales, while the latter applies to areas such as online search or certain mobile applications which are specific to the digital world.¹⁰¹ Online advertisements, for example, may compete with advertisements in more traditional, ‘offline’ outlets such as printed newspapers; online travel agencies may compete with brick-and-mortar ones; online style consultants may compete with their in-person counterparts. When defining the relevant antitrust market, it is essential to take these competitive relationships into account in order to formulate an adequate antitrust policy for these markets. This may often lead to

⁹⁶ Verhaert (n 61) 271. On this see also Hoppner (n 29) 363.

⁹⁷ *ibid* 361.

⁹⁸ Baye (n 12) 642.

⁹⁹ On the risk of over-enforcement in competition law more generally, see Frank Easterbrook, ‘The Limits of Antitrust’ (1984) 63 *Texas L Rev* 1.

¹⁰⁰ Case C-52/09 *Konkurrensverket v TeliaSonera Sverige* ECLI:EU:C:2011:83, para 108.

¹⁰¹ Thépot (n 32) 207.

antitrust market definitions that are very case-specific and unpredictable – a problem that needs to be addressed in antitrust from the vantage point of legal certainty.

In particular with regards to online advertising, it should be stated that this is typically one side of a two- or multi-sided market;¹⁰² e.g. in internet search engines or social networking. In such a case, the market definition should take into account not only the considerations that we referred to as the online/offline paradigm, but also the implications of two-sided markets as discussed above (section 3.1).

3.3.2. Case law frequently finding separate online markets

The European Commission has addressed the issue of market definition when online advertisements were involved on a number of occasions, and has repeatedly held that online and offline advertising constitute two separate markets for the purposes of competition law.¹⁰³ As the Commission has outlined, '[t]he fact that most advertisers market their products through several advertising channels does not demonstrate that these different channels are demand substitutes.'¹⁰⁴ In *Google/DoubleClick*, the Commission again dedicated some analysis to the question whether online and offline advertising formed part of the same relevant antitrust market. It found that the industry itself perceived these to form separate markets, and held this finding to be the most important reason to do so.¹⁰⁵ In addition, the Commission found that some characteristics unique to online advertising – precise targeting, measurement of the ads' effectiveness, and pricing mechanisms – warranted that it constituted its own relevant market.¹⁰⁶ This Commission reasoning, however, builds on the product's characteristics rather than on its demand-side substitutability,¹⁰⁷ and thus deviates quite fundamentally from the Commission's own Market Definition Notice. Such an approach bears the danger of substituting a market delineation based on actual substitutability with market perceptions and intuition – which are rarely neutral or objective.

In *Microsoft/Yahoo! Search Business*, similar issues were at stake and the Commission adopted the same market definition.¹⁰⁸ In the recent *Facebook/WhatsApp* merger, the Commission reiterated that the market investigation had again shown that online and offline advertising continued to constitute separate product markets.¹⁰⁹ What is also

¹⁰² Ratliff and Rubinfeld (n 95) 659.

¹⁰³ *Telia/Telenor/Schibstedt* (Case IV/JV.1) Commission Decision [1998] paras 13 ff (not contesting the parties' view that 'Internet advertising' constituted one of the relevant product markets, but ultimately leaving market definition open, see at para 18); *Telia/Telenor* (Case COMP/M.1439) Commission Decision [1999] para 107 (referring to its previous case); *Vodafone/Vivendi/Canal Plus* (Case COMP/JV.48) Commission Decision [2000] paras 43-44.

¹⁰⁴ *Telia/Telenor* (n 103) para 107.

¹⁰⁵ *Google/DoubleClick* (n 22) paras 45-46.

¹⁰⁶ *ibid* paras 45-46.

¹⁰⁷ Ratliff and Rubinfeld (n 95) 675 n 72; also noted by Monopolkommission (n 14) para 138.

¹⁰⁸ *Microsoft/Yahoo! Search Business* (n 45) para 61. In *News Corp/BSkyB*, the Commission again highlighted that it had previously held online and offline advertisements to constitute separate antitrust markets, but did not add to this analysis; see *News Corp/BSkyB* (Case COMP/M.5932) Commission Decision [2010] paras 262, 268.

¹⁰⁹ *Facebook/WhatsApp* (n 46) paras 74, 75, 79.

notable in all the cases just discussed is that the Commission characterized and defined the market for online advertisement services without fully engaging in a discussion of the fact that online advertisements constituted one side of a platform market.

Online advertisements, however, are by far not the only example of digital markets that are characterized by the online/offline paradigm. Indeed, online retailers such as Amazon or Zalando are certainly in a competitive relationship with their brick-and-mortar counterparts – the question is with which particular counterparts, to what degree, and within which geographic area. Without analysing the online and offline competition of an online retailer, it would be entirely misguided to conclude that high market shares or turnover automatically translate into market power.¹¹⁰

In *Pierre Fabre*, the CJEU was called upon to rule whether an absolute ban on online sales of Pierre Fabre's cosmetics and personal care products constituted a competition law infringement under Article 101 TFEU.¹¹¹ In this case, the implication was clear: If selected distributors were to sell Pierre Fabre's products online, this would incite (unwelcome) price competition. While the Court did not explicitly state this, such an assessment assumes that the online and offline sale of those cosmetics and personal care products constitute one relevant product market, presumably for each individual class of products.

3.3.3. Analysis and discussion

Much of the online/offline debate, both in the literature and in the case law, has centred around online advertising. For instance, Ratliff and Rubinfeld provide an insightful detailed description of the (online) advertising industry, allowing a good sense of the complexity of this market – and how to define the relevant antitrust market. They highlight that online advertising can be very versatile, just like 'offline advertising' such as in newspapers, magazines, on TV or billboards.¹¹² Whether or not online and offline advertising compete – and are thus part of the same relevant market – depends on the degree to which online advertising constrains offline advertising and vice versa; as the authors note, this relationship may not be reciprocal; i.e. it is possible that one form of advertising constrains the other more.¹¹³

Despite the importance of online advertising, it must be underlined that the online/offline paradigm plays an important role in many more digital markets. In particular, this is an area in which a special focus should lie on online retailing. The preliminary stance that online and offline goods or services do not compete with each other can lead to artificially delineated markets that do not represent the actual competitive relationships at play. Neither European courts nor authorities have sufficiently recognized this to date. But a recent German decision gives hope that not all is lost: The Higher Regional Court Düsseldorf, in a 2015 decision relating to hotel booking portals, warned that it was not conducive to differentiate between online and

¹¹⁰ For a similar conclusion see Monopolkommission (n 14) paras 361, 363.

¹¹¹ Case C-439/09 *Pierre Fabre Dermo-Cosmétique* EU:C:2011:649, para 2.

¹¹² Ratliff and Rubinfeld (n 95) 660-670.

¹¹³ *ibid* 670 f, in particular see n 56.

offline distribution of hotel services, stating that ‘it is problematic to delineate markets based on their distribution channel.’¹¹⁴ Currently, many European decisions have reached the conclusion that the online environment is shielded from offline competition. Perhaps the European antitrust sector enquiry into e-commerce will act as an impetus to reconsider this stance. Where customers regard offline products as interchangeable with their online counterparts, this substitutability pattern cannot simply be ignored but must be incorporated into the market definition, even if this broadens the relevant market – and narrows the possibilities for finding substantial market power.

3.4. Competition in innovation

In Schumpeterian industries, rapid innovation can mean that today’s market definition – and the market shares based on this definition – can easily and often unpredictably be overthrown; and with it, the competition law analysis centred on these parameters. In fact, it has been found that in such innovative industries competition is often for the market rather than in the market.¹¹⁵ Any competition law scrutiny based on market structure analysis must therefore be carried out with caution, and should extensively rely on additional findings so as to prevent competition law intervention based on a market definition that is so short-lived that the admonished market behaviour does not raise considerable antitrust concerns. In highly innovative market environments, competition in innovation has become an important catchphrase, not only for competition law scholars but also for enforcement agencies. It adds an important dimension to the analysis in cases where the market definition cannot appropriately reflect the innovation concerns at stake, and might be particularly useful in digital markets.

The European Commission acknowledged in *Microsoft/Yahoo! Search Business* that the ability to innovate – both in terms of radical and incremental innovation – represents an important dimension of competition between internet search engines that needs to be taken into account.¹¹⁶ Shortly after that, the Commission acknowledged in the *Microsoft/Skype* merger that market shares only have a limited value in the face of rapid innovation.¹¹⁷ The Commission’s analysis was explicitly upheld by the General Court, which stated that ‘[i]n such a dynamic context, high market shares are not necessarily indicative of market power.’¹¹⁸

A coherent approach to the innovation dimension of competition is still lacking.¹¹⁹ If innovation competition needs to be framed as competition outside of existing antitrust

¹¹⁴ *HRS* (n 50) paras 47-48 (direct quote at para 48; own translation).

¹¹⁵ See Paul A Geroski, ‘Competition in Markets and Competition for Markets’ (2003) 3 *Journal of Industry, Competition and Trade* 151, 152 (citing other authors that have coined this term in n 1); *Drexel* (n 23) 508, 513.

¹¹⁶ *Microsoft/Yahoo! Search Business* (n 45) para 109.

¹¹⁷ *Microsoft/Skype* (n 85) paras 78, 99.

¹¹⁸ Case T-79/12 *Cisco Systems & Messagenet v Commission* EU:T:2013:635, para 69.

¹¹⁹ Benjamin R Kern, ‘Innovation Markets, Future Markets, or Potential Competition: How Should Competition Authorities Account for Innovation Competition in Merger Reviews?’ (2014) 37 *World Competition* 173, 175. Innovation competition also features in US policy documents; see US Department of Justice and Federal Trade Commission, ‘Horizontal Merger Guidelines’ (19 August 2010) 23.

markets, as is suggested by some scholars,¹²⁰ then one will need to recognise that it cannot be included into the analytical framework for defining antitrust markets. At the same time, in digital, innovation-intense markets, it might well be seen as ‘myopic’¹²¹ to conduct an antitrust analysis based on a certain antitrust market definition, without reverting back to this definition over the course of the investigation in order to verify whether it still holds. Indeed, ‘the fluid, rapidly shifting contours of tech markets make it difficult to preemptively determine market definition for regulatory purposes.’¹²²

While competition for a market will have some disciplining force on the current competitors in the market, this will not be as strong as competition from within the market.¹²³ Thus, it also needs to be analysed differently. Overall, competition law’s standard analytical tools are only apt for this analysis to a limited degree.¹²⁴ Potential competition as a competitive restraint, as it is acknowledged by the European Commission’s Market Definition Notice,¹²⁵ would allow the taking into account of expected market developments, but is currently not relied on at the stage of market definition. This is an area in which more research is needed.

4. CONCLUDING THOUGHTS

The delineation of digital markets for the purposes of European competition law presents itself as challenging, but not futile. In order to tackle the various challenges that digital markets pose for antitrust market delineation, market definition needs to be adapted to the digital marketplace. Only then will antitrust market definition be able to fulfil its role in digital markets, namely to help conceptualize the competition issues underlying a case and understand the specific theory of harm. As could be seen from the case law discussed in section 3, competition law cases in digital markets often touch upon not one but several of the market definition issues highlighted in this paper. Evidently, this makes market definition an ever-more complex issue. It was also seen that many Commission cases to date revolved around mergers, allowing the Commission the loophole of stating that even under the narrowest possible market definition no competition issues would arise post-merger. It can only be hoped that the Commission will provide a more detailed market definition in the ongoing *Google* cases, which concerns Article 102 TFEU.

Going forward, it will be important to develop a coherent competition law approach to digital markets, including in the area of market definition. Based on the often ‘borderless’ nature of the digital marketplace, it will be particularly important to adopt an approach not only across the European Union but one that also spans other jurisdictions such as

¹²⁰ On such an approach, see *Drexler* (n 23) 540.

¹²¹ Adam Thierer, ‘The Rule Of Three: The Nature of Competition In The Digital Economy’ *Forbes* (29 June 2012).

¹²² *ibid.*

¹²³ *Geroski* (n 115) 162.

¹²⁴ *ibid.* 165.

¹²⁵ Commission Notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C372/5, paras 13, 14.

the US. Only if competition law analysis in the area of digital markets is – keeping with the digital language – in sync with each other can it best reap the benefits that competition can produce. The following four recommendations summarize the conclusions reached in this paper on how market definition can be a useful competition law tool in digital markets:

First of all, for digital platform markets the market side on which revenue is generated is a good starting point for market definition, but should never be analysed in disassociation from the other market side(s). The provision of seemingly ‘free’ services should not be likened with the non-existence of a market. When assessing market power, the platform can often not be assessed as such. Instead, each market side must be analysed, with the other market side acting as a possible constraint on market power. Market share thresholds and price-based analytical tools will often not provide relevant insights in digital platform markets. In addition, the dynamic nature of digital platforms means that a once-defined relevant market may need to be re-defined, in line with often unpredictable market developments. This insight must be incorporated into the ongoing analysis.

Secondly, while digital markets can exhibit substantial differentiation, they also exhibit rapid innovation and short product cycles. For these reasons, one should refrain from delineating artificially narrow product markets and instead acknowledge that innovation can act as a force eradicating the market power that might stem from differentiation.

Third, the online/offline paradigm is sometimes not even acknowledged when digital markets are being delineated. For the future, it will be important to incorporate the possibility of competition from the offline world when assessing substitutability patterns for digital products. This might well lead to a plethora of geographically dispersed relevant markets for a homogeneous product, with different offline suppliers competing with one and the same online supplier at different locations.

Finally, competition in innovation has a particularly import role to play in digital markets. If such considerations – e.g. through the finding of discernible future markets or a greater reliance on potential competition – cannot be incorporated into market definition, then competition in innovation must gain a more prominent role in the subsequent antitrust analysis.