

DOMINANT UNDERTAKINGS IN THE DIGITAL ERA:
A CALL FOR EVOLUTION OF THE COMPETITION POLICY
TOWARDS ARTICLE 102 TFEU?

EVELIN HLINA*

In recent years, the impact of the ever-growing digitalisation received considerable attention by competition law enforcers. In particular, the strong market positions of certain ‘digital market champions’ lead to debates whether competition policy as it stands today is capable of facing the challenges of the digital era. Indeed, 90% of all internet search queries in Europe are processed by Google, and Facebook receives 15 times as many clicks as other social networks. But might the significant market power of those undertakings be explained by the characteristics of two- or multisided-platform markets, or rather by the fact that competition in the digital economy is different to the analogue world? This article examines whether there is a need to improve the current rules on abuse of dominance to face the challenges of digital markets, or whether competition policy has to be adapted regarding digital market champions.

I. Introduction

In the debate on how to face novel issues given rise by the digital economy, some believe that the European Commission (the ‘Commission’) should refrain from intervening in the fast-moving digital economy, since intervention would generally slow down innovation and outweigh possible benefits for consumers. Another group takes the view that the Commission might not be able to address issues on those markets efficiently enough and a stricter enforcement of competition law in digital markets in form of a new regulatory framework would be the best suited instrument to counteract

* Mag. Evelin Hlina LL.M. (Queen Mary University of London) is an associate at Schönherr Rechtsanwälte GmbH Vienna, Austria.

market dominance in the digital economy. Yet others argue that the current competition policy towards abuse of dominance cases has to be reassessed and potentially improved to face the challenges of digital markets. The different positions show that the digital economy has given rise to new challenges, which need to be faced by the Commission in order to ensure competition on the merits on digital markets.

This article weighs the claims made on which role competition policy should play in the digital economy and examines in which way the current policy on abuse of dominance might be improved to face the novelties of digital markets. It takes the view that the positions either to abstain from enforcement of competition law in the digital economy or to introduce an ex-ante regulatory framework are excessive and not necessary, and that the evolution of the competition policy of the Commission towards Article 102 TFEU is not only completely adequate but rather best suited to face abusive conduct on digital markets.

The main aim of this article is to examine whether and how competition policy should evolve with the traditional tools at hand in the fast-moving and highly innovative digitalised industry without producing unacceptable false positive or negative outcomes for those markets. The position taken by the Commission on market definition and dominance was highly criticised in previous abuse of dominance proceedings in digital markets, such as *Microsoft* or *Google Search*. Therefore, the article focuses on market definition and dominance as the most crucial points in the enforcement of Article 102 TFEU in digital markets.

In order to discuss the primary question at issue, the article in section 2 first defines digital markets and outlines their main characteristics distinguishing digital markets from the analogue world. After having reflected on the current state of discussion and the proposed approaches how to handle the challenges given rise by the digital economy in abuse of dominance cases in Section 3, Section 4 outlines the current legal framework and policy considerations under Article 102 TFEU and concentrates on the improvement of the Commission's competition policy towards abuse of dominance cases in digital markets and discusses whether the policy as it stands is appropriate in dealing with the abuse of dominance in the web based economy and where adjustments are needed. Section 5 concludes.

II. Characteristics of Digital Markets

1. Introduction

This chapter provides an overview of industries coming under the definition of digital markets and the economic characteristics generally presented by them. Given that digitalisation profoundly changed the commercial behaviour in most markets, and nowadays practically every business is to a larger or smaller extent carried out in a digitalised manner, a uniform definition of digital markets is difficult to provide.

For the purpose of this article, digital markets are understood as industries which are characterised by the supply of digital goods or services. According to this definition, digital markets comprise operating systems for PCs or laptops (eg Windows), search engines (eg Google), apps for smart mobile devices (eg Whatsapp), websites or software for the distribution of digital content (eg YouTube or Spotify), or social networks (eg Facebook).¹ Furthermore, also industries where physical goods are distributed through a digital platform come under this definition, provided that the core business in question concerns the development and management of the platform (eg Amazon).

Despite the fact that a wide range of industries are covered under the umbrella of digital markets, most of these markets share common characteristics. These characteristics significantly influence both business decisions taken by the individual undertakings as well as competition on the market leading to business models quite different from those in conventional sectors.² In this context, it is particularly vital for competition policy to take into account the characteristics of two- or multi-sided platforms, since most features of one-sided businesses do not apply to those business models.³

¹ See Massimiliano Kadar, 'European Union competition law in the digital era' (2015) 4 *Zeitschrift für Wettbewerbsrecht* 342, 345.

² David S Evans and Richard Schmalensee, 'The antitrust analysis of multi-sided platform businesses' in Roger D Blair and D Daniel Sokol (eds), *Oxford Handbook on International Antitrust Economics* (OUP 2013) 404.

³ This was also emphasised in OECD, 'Roundtable on Two-Sided Markets' (DAF/COMP(2009)20) 11 et seq <<https://www.oecd.org/daf/competition/44445730.pdf>> accessed 28 July 2016.

2. Dynamic and Innovative Markets

The main characteristic of the digital economy is its highly dynamic and innovative nature. The fast-moving pace and sometimes even disruptive nature of digital markets leads to immense innovation processes through which new products are launched rapidly or existing products are developed apace.⁴ In this volatile playing field, market entrants may easily destabilise the competitive strength of an incumbent by way of introducing new products.⁵ This can particularly be seen in the example of start-ups, since most of the highest valued start-ups in the world, such as Spotify, Snapchat or Airbnb, are active in the digital economy.⁶

Furthermore, since digital markets are evolving constantly, undertakings which are successful in one field often expand their activities either into neighbouring fields or even distant markets.⁷ The best example of a broad portfolio expansion is Alphabet Inc. (the company behind Google), which extended its activities beyond its original function as a search engine into neighbouring areas, such as Maps, YouTube, Apps, Cloud, Android, Chrome or Google Play, as well as other – quite different – business fields, such as hardware products (Chromecast, Chromebooks and Nexus), home automation (Nest), internet or TV services (Google Fiber).⁸ Besides Google, also other digital market champions, most notably Apple or Facebook, have chosen to expand their business operations into other fields by way of acquisition or development.⁹

The broadening of the business portfolio in the digital economy is moreover facilitated by low barriers to entry and expansion. In particular the internet leads to a reduction of costs, eg for the development, design and distribution

⁴ See OECD, 'Hearing on disruptive innovation' (DAF/COMP(2015)3) 2 et seq <[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP\(2015\)3&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP(2015)3&docLanguage=En)> accessed 8 June 2016, for a definition of disruptive innovation inter alia in digital markets.

⁵ German Monopolies Commission (*Monopolkommission*), 'Competition policy: The challenge of digital markets' (Special Report No 68 2015) 15.

⁶ Scott Austin, Chris Canipe and Sarah Slobin, 'The Billion Dollar Startup Club' *The Wall Street Journal* (New York City, 18 February 2015) <<http://graphics.wsj.com/billion-dollar-club/>> accessed 8 June 2016.

⁷ Monopolies Commission (n 6) 16.

⁸ Alphabet Inc., 'Form 10-Q for the quarterly period ended 31 March 2016' (2 May 2016) 28 <https://abc.xyz/investor/pdf/20160331_alphabet_10Q.pdf> accessed on 27 July 2016.

⁹ *Facebook/Whatsapp* (Case COMP/M.7217) Commission Decision [2014] OJ C297/13; *Apple/Beats* (Case COMP/M.7290) Commission Decision [2014] OJ C205.

of products, the provision of information, or the collection of consumer data.¹⁰ An impressive example for taking advantage of the low cost structure in the digital economy is Whatsapp, which grew to more than 900 million users with less than 50 engineers working at the firm.¹¹

Another characteristic resulting from the dynamic and innovative nature of digital markets is that competition on innovation in the digital economy may not only take place in the market but for the entire market. Since competition is not on the price, undertakings active in the digital economy might be forced to compete not only in but for the entire market.¹² This might lead to situations where the product becomes not only the leading, but the standard product, and therefore the undertaking not only market leader but market dominant.

3. High Fixed Cost and Low Marginal Cost

Another characteristic of a large number of digital markets is that their cost structure is characterised by high fixed cost and low (to virtually non-existent) marginal cost.¹³ Normally, effective competition drives prices towards short-run marginal cost.¹⁴ However, in digital markets, the opposite is generally the case since the creation and development of a digital infrastructure entails high costs, while the expenditures for the distribution are low.¹⁵ For example, high fixed costs are needed in order to develop an

¹⁰ Jonathan Levin, 'The Economics of Internet Markets' in Daron Acemoglu, Manuel Arellano and Eddie Dekel (eds), *Advances in Economics and Econometrics: Tenth World Congress on Economic Theory*, vol 1 (Cambridge University Press 2013) 48.

¹¹ Cade Metz, 'Why WhatsApp only needs 50 engineers for its 900m users' (New York City, 15 September 2015) *Wired Magazine* <<http://www.wired.com/2015/09/whatsapp-serves-900-million-users-50-engineers/>> accessed on 27 July 2016.

¹² See Case T-201/04 *Microsoft Corp v Commission* [2007] ECR II-3601.

¹³ Herbert J Hovenkamp, 'Antitrust and Information Technologies' (2015) 68 *Florida Law Review* 7 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2531689> accessed 21 June 2016. Please note that there are also some digital markets which are characterised by both low fixed and low marginal costs. In *Facebook/Whatsapp* (n 10) paras 119 and 124, the Commission held for instance that the launch, operation and distribution of social network apps, such as Whatsapp, entails rather low cost.

¹⁴ Phillip Areeda and Donald F Turner, 'Predatory Pricing and Related Practices Under Section 2 of the Sherman Act' (1975) 88(4) *Harvard Law Review* 697, 702.

¹⁵ Kadar (n 2) 6.

operating system, while marginal costs for the provision of the software to both developers and consumers are low.

4. Two- or Multi-Sided Platform Markets

Most digital players are not one- but rather two- or multisided businesses. Platforms in general have a great value for the economy, since transactional costs are minimised by the simplification of 'matchmaking' between two or more interdependent groups.¹⁶ But also in the digital economy, intermediaries in the form of two- or multi-sided platforms play a vital role by enabling or facilitating economic or social interactions between distinct customer groups, eg in social networks, trading platforms or operating systems.¹⁷

The interaction between the platform sides with interdependent demand leads to direct or indirect network effects (or externalities).¹⁸ Direct network effects arise when users of one side of the platform value a product or service more, the higher the number of users on their side.¹⁹ Direct network effects are, for instance, particularly significant on social network platforms, such as Facebook, Skype or Twitter, which are more valuable to its users, the larger the number of users to communicate with on their side.

In contrast, indirect network effects arise when the users of one side value a product more, the more users 'from the other side' are using the platform.²⁰ Airbnb, for instance, is more valuable to consumers if a large number of

¹⁶ David S Evans and Richard Schmalensee, 'Industrial Organization of Markets with Two-Sided Platforms' (2007) 3 *Competition Policy International* 150, 151.

¹⁷ In Gunnar Niels, Helen Jenkins and James Kavanagh, *Economics for Competition Lawyers* (OUP 2011) 89, the economic concept of two- or multi-sided platforms is discussed. Platforms are not a novel phenomenon of the digital era but are also common in various analogue industries, such as advertising supported media, shopping centres or payment systems, particularly in the focus of the Commission in *Visa International* (Case COMP/29.373) Commission Decision [2002] OJ L318/17.

¹⁸ John E Kwoka and Lawrence J White, *The Antitrust Revolution: Economics, Competition, and Policy* (6th edn, OUP 2013) 606; David S Evans, 'Two-Sided Market Definition' in ABA Section of Antitrust Review, *Market Definition in Antitrust: Theory and Case Studies* (American Bar Association 2012) 437, 438.

¹⁹ Miguel Rato and Nicolas Petit, 'Abuse of dominance in technology-enabled markets: established standards reconsidered?' (2013) 9 *European Competition Journal* 1, 4.

²⁰ Massimo Motta, *Competition Policy: Theory and Practice* (Cambridge University Press 2004) 451.

rooms can be found on the platform, and it is more appreciated by lessors if a large number of customers searches and books rooms over Airbnb.

5. Winner Takes It All Markets

Competition in digital markets is, due to disruptive innovation, high initial expenses and network effects, not exactly comparable to other markets, particularly because these characteristics make the digital economy prone to 'winner-takes-it-all effects'.²¹ This means that once a digital market player has reached a certain 'tipping' point, positive feedback effects ensure that the winner gains more and more customers and it becomes very difficult for actual or potential rivals to compete with the dominant undertaking.²² Thus, digital markets may easily be dominated by a (quasi-)monopolistic winner.²³

For instance, in *Microsoft*, the proceedings against Microsoft for leveraging its market power on the market for client PC operating systems onto the market for media players, the Commission dealt with the characteristics of the digital economy.²⁴ Here the Commission considered that indirect network effects may lead to a 'positive feedback loop' on the market for client PC operating systems, since "the more popular an operating system is, the more applications will be written to it and the more applications are written to an operating system, the more popular it will be among users".²⁵ The Commission considered that the dynamics on the market for client PC operating systems protected the market power of Windows from competition, since most software developers – due to the 'positive feedback loop' – did not find it economically viable to develop to an alternative platform.²⁶

²¹ Fernando Diez, 'Promoting Competition in Digital Markets; a Case Against the Google Case, and the Futile Search of 'Neutrality' in On-line Searches' [2015] Competition Policy International <<https://www.competitionpolicyinternational.com/promoting-competition-in-digital-markets-a-case-against-the-google-case-and-the-futile-search-of-neutrality-in-on-line-searches/>> accessed on 27 July 2016.

²² Carl Shapiro and Hal R Varian, *Information Rules* (Harvard Business School Press 1999) 174 et seq.

²³ Joshua Cooper Ramo, 'Why 'Network Power' is the Secret of Success for Apple, Facebook and Amazon' *Fortune* (19 July 2016) <<http://fortune.com/2016/07/19/21st-century-network-power/>> accessed on 27 July 2016.

²⁴ *Microsoft* (Case COMP/C-3/37.792) Commission Decision [2007] OJ L32/23.

²⁵ *Ibid* paras 449 et seq.

²⁶ *Ibid* paras 541 et seq.

Similarly, the Commission concluded in *Microsoft (Tying)* concerning the tying of Microsoft's Internet Explorer browser with the Windows client PC operating system that

*It would be extremely difficult, time-consuming, risky and expensive to develop an alternative client PC operating system, with no application able to run on it, because users are very unlikely to buy an operating system without a wide range of applications already available, tested and used by other people.*²⁷

III. Current State of Discussion

1. Introduction

This section outlines the current state of discussion of the role of competition policy in digital markets in the EU. In recent years, the discussion on the efficiency of the current policy towards abusive conduct in digital markets has been fuelled by proceedings against multinational undertakings provoking considerable media attention and the 'transatlantic dissent' between the enforcement of Article 102 TFEU in the EU and the enforcement of Section 2 of the American Sherman Act in the US. The different approaches towards abusive conduct by dominant undertakings are historically given: while the American antitrust law believes in the self-regulatory power of markets, Article 102 TFEU relies much more on the correctness of government intervention.²⁸ Although the different mind-sets on either side of the Atlantic Ocean clashed already in the past, the divergence in enforcement in digital markets widens when dealing with digital market champions, which became clear by the different outcomes of both *Microsoft* and *Google*.²⁹

After discussing the position that competition law enforcers should refrain from intervention in digital markets, this section moves on to present another

²⁷ *Microsoft (Tying)* (Case COMP/C-3/39.530) Commission Decision [2009] OJ C242/04, para 28.

²⁸ Eleanor M Fox, 'Monopolisation and Dominance in the United States and the European Community: Efficiency, Opportunity and Fairness' (1986) 61 *Notre Dame Law Review* 981.

²⁹ Jose Gonz ales-Magaz and William Gordon, 'From Microsoft to Google – Continued Divergence in Transatlantic Antitrust Settlements?' (2013) 3 *Competition Policy International* <<https://www.competitionpolicyinternational.com/from-microsoft-to-google-continued-divergence-in-transatlantic-antitrust-settlements/>> accessed on 27 July 2016.

rather radical position, ie the introduction of ex-ante regulation in digital markets in order to counteract abusive conduct by digital champions. Lastly, the improvement of the current legal framework or the Commission's policy in order to tackle the challenges of the digital economy is outlined. The involvement of competition policy is discussed in greater detail in Section 4, since this position seems best suited to path the way to an effective competition law enforcement in digital markets.

2. Intervention in Digital markets – More Harm than Good?

Starting with the US antitrust proceedings against Microsoft for bundling its Internet Explorer with the Windows client PC operating system, arguments were raised against the intervention of competition authorities in digital markets.³⁰ Since then, some believe that market imperfections in the digital economy are 'self-regulated' by its fast-moving nature and that intervention by competition law enforcers might only deter investments in innovation, which ultimately causes consumer harm.³¹

Similar arguments to those put forward in *Microsoft* were raised in *Google Search*, where Google allegedly abused its comparison shopping service.³² Particularly in the light of the 'transatlantic gap' in the enforcement policy towards abusive conduct by dominant undertakings between the EU and the US, it was claimed that the Commission did not initiate the proceedings against Google based on genuine competition concerns, but was rather motivated by economic policy considerations regarding the lack of EU undertakings active in the digital economy. This led to claims that the Commission should rather be concerned with the liberalisation of digital

³⁰ US Supreme Court *United States v Microsoft Corporation* 253 F.3d 34 (D.C. Circuit 2001).

³¹ Stan J Liebowitz and Stephen E Margolis, *Winners, Losers and Microsoft: Competition and Antitrust in High Technology* (2nd edn, The Independent Institute 2001) 253 et seq; David J Teece and Mary Coleman, 'The meaning of monopoly: Antitrust Analysis in High-technology Industries' (1998) 43 *Antitrust Bulletin* 801, 853 et seq.

³² Commission, 'Antitrust: Commission sends Statement of Objections to Google on comparison shopping service' Press release of 15 April 2015 (MEMO/15/4781) <http://europa.eu/rapid/press-release_IP-15-4780_en.htm> 27 July 2016.

markets as well as market integration in order to enable powerful undertakings to arise.³³

Indeed, excessive intervention by the Commission would be unfortunate, since it is undoubtedly the case that consumers may benefit from digital champions such as Microsoft or Google. Therefore, the question arises whether the Commission is actually intervening too much in the digital economy. Looking at the Commission's enforcement figures, this is not the case. In recent years,³⁴ the figures show that out of 22 abuse of dominance prohibition decisions pursuant to Article 7 Regulation 1/2003 and commitment decisions pursuant to Article 9 Regulation 1/2003, only the decision in *Microsoft (Tying)* concerned digital markets.³⁵ Although this simplistic analysis might not take into account the relative commercial importance of the digital economy in the EU, it seems rather far-fetched to claim that the Commission is intervening excessively in digital markets.

However, even if intervention by the Commission is not disproportionate, is there more harm than good by enforcing competition rules in the digital economy? Turning a blind eye to a sector that important and fast-growing, seems grossly inadequate. As stated above, the digital economy has borne many 'winner takes it all'-markets, where market leaders are likely to be created and their strong market positions are easily maintained by network effects. These characteristics may indeed lead to barriers to entry or expansion and even more efficient competitors may not be able to successfully challenge digital champions. This can be seen, for instance, from Microsoft's long term market leadership in client PC operating systems,

³³ See eg 'Europe v Google: Nothing to stand on' *The Economist* (18 April 2015) <<http://www.economist.com/news/business-and-finance/21648606-google>> accessed on 27 July 2016; Alistair Barr, 'What Is at the Heart of Complaint Against Google?' *The Wall Street Journal* (15 April 2015) <<http://www.wsj.com/articles/what-is-at-the-heart-of-complaint-against-google-1429112645>> accessed on 27 July 2016; John Springford, 'How not to create a 'European Google' *Politico* (27 August 2015) <<http://www.politico.eu/article/not-create-european-google-innovation-tech-monopoly>> accessed on 27 July 2016.

³⁴ The timeframe under analysis comprises the period from July 2009 until July 2016.

³⁵ *Microsoft (Tying)* (n 28). Please note that under a broader definition of digital or rather technology markets, the number of cases would increase from one to three and would further comprise *Samsung – Enforcement of UMTS standard essential patents* (Case AT.39939) Commission Decision [2014] OJ C350/8, and *Motorola – Enforcement of GPRS standard essential patents* (Case AT.39985) Commission Decision [2014] OJ C344/6. However, these cases do not fall under the definition chosen for the purpose of this article (see section 2 above).

Facebook's strong market position in social networks, or Google's outstanding presence in search engines. Recent history has even shown that such positions once taken may not even be challenged by high-profile companies, for instance, in the example of the failed attempt of Google to challenge Facebook by entering into social networks with Google+.³⁶

Furthermore, as discussed above, digital markets may allow a dominant market player in one market to leverage its market power into other (even non-related) markets. While intervention by the Commission is not contested if a market leader abuses its dominant position in analogue markets, there is in principle no plausible reason for the Commission to abstain from applying competition rules to similar conducts in digital markets.³⁷ The Commission has rightly intervened in the attempts of Microsoft to abuse its dominant position by leveraging its dominant market position in client PC operating systems to other markets.³⁸

In light of the above considerations, the Commission needs as a matter of competition policy to have the power to closely monitor digital markets and to intervene in cases where instead of competition on the merits, digital champions are abusing their market power. The importance of intervention is even more emphasised by the importance of the ever-growing digital economy and the benefits for consumers stemming from competition in those markets.

3. Stronger Intervention by Way of Regulation?

On the opposite front to the demand for abstaining from intervention in digital markets, there are calls for stronger and more efficient enforcement. Particularly in context of *Google Search*, the Commission was criticised for reacting too slowly and too late in the fast-moving digital economy, only after

³⁶ Seth Fiegerman, 'Inside the failure of Google+, a very expensive attempt to unseat Facebook' *Mashable* (2 August 2015) <<http://mashable.com/2015/08/02/google-plus-history/#zYSaWuu3rPqU>> accessed 4 July 2016.

³⁷ Speech by Alexander Italianer, 'Competition Policy in the Digital Age' (47th Innsbruck Symposium on the Real sector economy and the internet – digital interconnection as an issue for competition policy on 7 March 2014) <http://ec.europa.eu/competition/speeches/text/sp2014_01_en.pdf> accessed on 27 July 2016.

³⁸ See *Microsoft* (n 13) and *Microsoft (Tying)* (n 28).

when the damage has already materialised.³⁹ In this context, even the European Parliament (the 'EP') proposed that the Commission should consider to unbundle search engines from other services in order to enhance competition.⁴⁰

Whereas abovementioned figures demonstrate that the Commission did not enforce excessively Article 102 TFEU in the digital economy, this simplistic view does not reflect the whole reality, since it does, for instance, not include deterrent effects of the Commission's enforcement activities. According to a recent survey, 12 potential abuse of dominance infringements are deterred by one case pursued.⁴¹ Therefore, the effectivity of the enforcement of the Commission must not only be measured based on the cases that are brought forward, but has rather to take into account the deterrent effect of the Commission's enforcement as well as its monitoring activities conducted without formal investigations.⁴²

As can be seen from recent investigations, the Commission is pursuing abuse of dominance cases in the digital economy and it is to welcome that the Commission's approach to intervention in the digital economy focusses on appropriateness rather than rash decisions, as Margrethe Vestager rightly pointed out regarding enforcement in the digital economy: "Of course it is better to be fast than slow but it's even better to be just".⁴³

Furthermore, even though an abusive conduct by a digital champion may raise issues in other areas of law, such as copyright, privacy or consumer protection law, competition law enforcers need to abstain from taking other than competition law considerations into account. This was also stated by the

³⁹ On 30 November 2010, the investigation in *Google Search* (COMP/C-3/39.740) was opened, on 15 April 2015, the Commission sent Statement of Objections to Google (n 33), and on 14 July 2016, the Commission formally opened the proceedings.

⁴⁰ EP, 'Resolution of 27 November 2014 on supporting consumer rights in the digital single market' (2014/2793(RSP)) para 15 <<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+TA+P8-TA-2014-0071+0+DOC+PDF+V0//EN>> accessed on 27 July 2016.

⁴¹ Fabienne Ilzkovitz and Adriaan Dierx, 'Ex-post economic evaluation of competition policy enforcement: A review of the literature' 17 (DG Competition, June 2015) <http://ec.europa.eu/competition/publications/reports/expost_evaluation_competition_policy_en.pdf> accessed on 27 July 2016.

⁴² Kadar (n 2) 11.

⁴³ Nicholas Hirst, 'Google's winning card against Europe: time' *Politico* (25 April 2016) <<http://www.politico.eu/article/why-the-ec-may-ultimately-lose-the-android-case/>> accessed on 27 July 2016.

Commission in Facebook's acquisition of Whatsapp, where it held that whereas potential privacy-related issues stemming from the concentration of data within the control of Facebook were detected, those were not taken into consideration due to their non-competition related nature.⁴⁴ Generally, any regulation by other areas of law in digital markets has to be kept completely separate from intervention by the Commission.⁴⁵

Even in the enforcement of competition law, an ex-ante regulation was demanded (notably by Germany and France) in order to grant access to an 'essential digital platform' where significant market power on digital markets may not be contestable.⁴⁶ In order to allow competition on the merits, it was suggested that dominant undertakings in digital markets shall be obliged to present competing offers free of charge, to grant non-discriminatory access to the content provided by the platform and to allow users to run apps and services on essential platforms as well as to introduce and vigilantly monitor the principle of 'platform neutrality'.⁴⁷

However, intervention by competition authorities in the competitive process shall generally be kept to a minimum. Thus, it is highly questionable whether the claim for an ex-ante regulation for essential digital platforms is required and appropriate. Particularly when the conduct can effectively be dealt with under the current legal framework of Article 102 TFEU.

Intervention in digital markets by way of ex-ante regulation already reaches its limits at the attempt of defining a digital market. Whereas many digital markets have abovementioned characteristics, there is no single business model for digital platforms.⁴⁸ Thus, a 'one-size-fits-all' blanket approach

⁴⁴ Commission, 'Mergers: Commission approves acquisition of WhatsApp by Facebook' Press release of 3 October 2014 (MEX/14/1003) <http://europa.eu/rapid/press-release_IP-14-1088_en.htm> accessed on 27 July 2016.

⁴⁵ Speech by Johannes Laitenberger, 'The Digital Single Market, consumers and EU competition policy' (Competition and Consumer Day, Luxembourg Presidency event on 21 September 2015) <http://ec.europa.eu/competition/speeches/text/sp2016_01_en.pdf> accessed on 27 July 2016.

⁴⁶ Letter from Sigmar Gabriel, Thomas Maizière, Heiko Maas and Alexander Dobrindt to Andrus Ansip, Günther Oettinger, Věra Jourová and Margrethe Vestager (Berlin, November 2014) 5 <https://www.bmfv.de/SharedDocs/Archiv/Downloads/Gemeinsames-Schreiben-Digitale-Agenda_EN.pdf?__blob=publicationFile&v=4> accessed on 27 July 2016.

⁴⁷ Ibid 6; Letter from Sigmar Gabriel and Emmanuel Macron to Andrus Ansip (28 April 2015) 2 <<https://m.contexte.com/docs/6478/lettre-franco-allemande-a-andrus-ansip-et-gunther-oettinger.pdf>> accessed on 27 July 2016.

⁴⁸ Speech by Laitenberger (n 46) 5.

which would be administrable does not seem workable. The peculiarities of digital markets further negatively affect the introduction of a regulatory framework. In contrast to traditional industries subject to access regulation, such as telecoms or energy, the digital economy is subject to rapid change and innovation. The time-consuming administrative burden resulting from ex-ante regulation would hit undertakings in the digital economy much harder than undertakings operating in the rather static telecoms or energy industries, since it is likely to slow down innovation, which is the most important competitive driver on digital markets.⁴⁹

Furthermore, since digital platforms often compete with offline platforms or one-sided businesses in various markets, regulation of digital players facing non-regulated competitors leads to an unfair regulatory asymmetry and distortion of competition on the market. By way of asymmetrical regulation, even incumbents might be protected from new entrants, which was, for instance, attempted to be achieved by traditional taxi in order to be shielded from digitalised service providers, such as Uber.⁵⁰ The same picture appeared in consumer communication services, where large telecom network operators have been affected by the great success of digital competitors.⁵¹ Unsurprisingly, companies active in telecoms fiercely supported the introduction of ex-ante regulation in digital markets.⁵² However, the protection of incumbents against digital market players would run counter to the aim of competition law to maximise consumer welfare and most likely would also slow down innovation.

The proportionality of intervention by way of ex-ante regulation by the Commission appears, due to the likely reduction of the incentives to innovate, highly questionable. The negative consequences are further pronounced by

⁴⁹ Rato and Petit (n 20) 8.

⁵⁰ Speech by Joshua D Wright, 'Regulation in High-Tech Markets: Public Choice, Regulatory Capture, and the FTC' (Big Ideas about Information Lecture at Clemson University on 2 April 2015) 23 et seq <https://www.ftc.gov/system/files/documents/public_statements/634631/150402clemson.pdf> accessed on 27 July 2016.

⁵¹ *Facebook/Whatsapp* (n 10) paras 28 et seq.

⁵² See eg Speech by Marc Lebourges (Conference of the Chair Innovation Regulation of Digital Services on 7 April 2015) <<http://innovation-regulation2.telecom-paristech.fr/wp-content/uploads/2015/04/Régulation-des-plateformes-IRSN-7-avril-2015-FFF-EN-clean.pdf>> accessed on 27 July 2016; or Speech by Vittorio Colao (28 Encuentro de Telecomunicaciones y Economía Digital: El Reto Europeo on 1 September 2014) <https://www.vodafone.com/content/dam/group/policy/downloads/challenges_and_opportunities_facing_digital_europe.pdf> accessed on 27 July 2016.

the fact that digital markets are one of the key drivers of growth in modern economies.⁵³ At this stage, ex-ante regulation seems not only hardly workable, but harming competition and innovation in the economy as a whole by way over-regulation excessively risky. The Commission should therefore follow its approach chosen in other emerging markets, where it explicitly stated that in order to promote innovation it would have to be secured that newly emerging markets are not subject to inappropriate obligations and even if there would be a first-mover advantage, ex-ante regulation in those markets would be ill-suited to overcome challenges for competition law enforcement.⁵⁴

4. Improvement of the Current Legal Framework or Policy?

Between the two extreme positions on either abstaining from intervention in digital markets and the introduction of an ex-ante regulation lies the adaption of EU antitrust law or the evolvement of the or the Commission's policy in order to better deal with abusive conduct by dominant undertakings in digital markets.

Whereas the legal framework under Article 102 TFEU was principally found suitable to deal with abuse of dominance by digital champions, intervention by the Commission was criticised and a revision of the concept of market definition, notably the Commission's Notice on Market Definition, as well as the concept of dominance in order to better face infringements on digital markets was claimed.⁵⁵

However, an amendment of the Commission's soft law seems premature, since the scope of action for the Commission is flexible enough to deal with

⁵³ See eg Commission, 'Communication: Europe 2020, A Strategy for Smart, Sustainable and Inclusive Growth' COM(2010) 2020 final.

⁵⁴ Commission, 'Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex-ante regulation in accordance with Directive 2002/21/EC of the EP and of the Council on a common regulatory framework for electronic communications networks and services' [2007] OJ L344/65, para 7.

⁵⁵ See eg Monopolies Commission (n 6); and European Parliament's Committee on Economic and Monetary Affairs, 'Challenges for Competition Policy in a Digitalised Economy' (15 July 2015, IP/A/ECON/2014-12) 52 et seq <[http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU\(2015\)542235_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU(2015)542235_EN.pdf)> accessed on 27 July 2016.

abuse of dominance cases irrespective of the industry sector. Furthermore, besides the fact that sector specific amendments seem generally counterproductive to innovation and consumer welfare, a blanket solution for the various types of digital markets seems currently not workable.⁵⁶ Besides that, the techniques used to assess market power have progressed and the Commission addressed the peculiarities of digital markets on several occasions in recent years, for instance network effects in proceedings under Article 102 TFEU in *Microsoft (Tying)*, or two-sided markets, consumer communication services as well as big data in merger control proceedings.⁵⁷ Thus, while legislative amendments seem unnecessary, it nevertheless has to be scrutinised whether some adoptions of the policy of the Commission towards Article 102 TFEU are appropriate and necessary to maintain effective competition in the digital economy.

IV. Improvement of the policy towards Article 102 TFEU

1. Introduction

Digital markets are of crucial importance for the economy. It is therefore of key significance for competition policy to ensure that competition is not distorted by dominant undertakings in these markets. In recent years, the Commission has shown that it is willing and capable to intervene in abusive behaviour by market dominant digital champions. However, it was harshly criticised for not adopting suitable tools to deal with abuse of dominance in the digital economy.

This chapter highlights the main elements of the substantive rules of the EU law on abuse of dominance and the Commission's policy towards market definition and the concept of dominance. No argument has yet been raised that Article 102 TFEU would not be capable of addressing abusive conduct of digital champions.⁵⁸ However, in particular the definition of the relevant market and the concept of dominance by the Commission was subject to criticism and revisions of the Commission's 'soft law instruments' were

⁵⁶ See section 3.3.

⁵⁷ See amongst many other examples eg *Microsoft (Tying)* (n 28); *Facebook/Whatsapp* (n 10); *Microsoft/Skype* (Case COMP/M.6281) Commission Decision [2011] OJ C268/12; *Microsoft/Yahoo! Search Business* (Case COMP/M.5727) Commission Decision [2010] OJ C20/32; or *Google/Double Click* (Case COMP/4731) Commission Decision [2007] OJ C230/12.

⁵⁸ Kadar (n 2) 15.

proposed.⁵⁹ Furthermore, since the enforcement of competition law in abusive conduct suffers from some shortcomings in the specific competitive environment of digital markets, the main procedural aspects are outlined in the below.

2. Article 102 TFEU

Article 102 TFEU provides that "any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States".⁶⁰ The provision therefore condemns certain unilateral (and collective) business practices of dominant undertakings which are acting in an abusive manner. The concept of dominance is defined by case law as

*A position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately its consumers.*⁶¹

In order to assess whether an undertaking is dominant under above definition, first the boundaries of competition, ie the relevant product and geographic markets, have to be found.⁶² Once the relevant markets are defined, it has to be analysed in a second step whether the firm in question enjoys a dominant position on these markets, which is heavily based on market shares and, among other things, barriers to entry or expansion, regulatory barriers or buyer power.⁶³

⁵⁹ See eg Monopolies Commission (n 6) 23 et seq.

⁶⁰ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47, Article 102.

⁶¹ Case 27/76 *United Brands v Commission* [1978] ECR 207, para 65.

⁶² *Ibid* paras 10 et seq.

⁶³ Ariel Ezrachi, *EU Competition Law: An Analytical Guide to the Leading Cases* (4th edn, Hart Publishing 2014) 182.

3. Market Definition in Digital Markets

a. Introduction

The main purpose of the definition of a relevant market is to facilitate the assessment of market power by identifying a set of products exercising competitive constraints on the undertakings involved.⁶⁴ In *Continental Can*, the first appeal on the application of Article 102 TFEU, the European Court of Justice (the 'ECJ') held that the definition of the relevant product market was of crucial importance when identifying a dominant position.⁶⁵ The legal benchmark for the definition of a relevant product market is interchangeability, ie whether the relevant products are only to a very small extent interchangeable with other products.⁶⁶

The Commission set out the methodology it applies when defining the relevant product and geographic markets in its Notice on Market Definition.⁶⁷ The relevant product market is one which "comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the product's characteristics, their prices and their intended use".⁶⁸ The geographic market around the activities of the undertakings in turn comprises the area in which "the conditions of competition are sufficiently homogenous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas".⁶⁹

In addition, the Notice on Market Definition identifies three main competitive constraints which undertakings are subject to, ie demand-side substitutability, supply-side substitutability as well as potential competition.⁷⁰ While demand-side substitutability is of greatest significance for the definition of the relevant market, supply-side substitutability is only relevant to market definition in exceptional cases and potential competition is according to the Notice on

⁶⁴ Motta, *Competition Policy* (n 20) 102.

⁶⁵ Case 6/72 *Europemballage Corporation and Continental Can Company Inc v Commission* [1973] ECR 215, para 32.

⁶⁶ *United Brands* (n 62) para 22.

⁶⁷ Commission, 'Notice on the Definition of the Relevant Market for the purposes of Community Competition Law', OJ C372/5. The Notice was approved by the EU Courts; see eg Case T-321/05 *AstraZeneca AB and AstraZeneca v Commission* [2010] ECR-II 2805, paras 28 et seq.

⁶⁸ *Ibid* para 7.

⁶⁹ *Ibid* para 8.

⁷⁰ *Ibid* para 13.

Market Definition only taken into account when a potential competitor is able to enter the market without incurring significant additional costs or risks.⁷¹ Only where the restriction of competition is effective and immediate, potential competition is given the same weight as demand substitution in the assessment of the relevant market.⁷²

Demand substitution is assessed by way of determination of the set of products which are considered substitutes by consumers. In order to determine a set of interchangeable products, the Notice on Market Definition proposes the SSNIP test.⁷³ This test analyses, under the assumption that the prices of competing products remain stable, whether a hypothetical monopolist may profitably raise the price of its products permanently by a small but significant price increase of 5-10%.⁷⁴ For that purpose, a certain set of products is chosen as starting point, which is progressively increased as long as the hypothetical monopolist suffers a loss in profit by that price increase. This is repeated until the price increase is profitable for the hypothetical monopolist and the relevant market is found.⁷⁵

Since most digital markets facilitate the interaction between two or more different groups, the links between the different sides of the digital platform have to be analysed when defining a relevant market for the application of Article 102 TFEU. A standard SSNIP analysis does not take into account the interrelated sides of digital platform markets.⁷⁶ Furthermore, digital markets are due to their peculiarities often more complex than traditional businesses and thus may pose problems for market definition. This became very clear, for example, in *Google Search*, where Google's advertising business, while being fairly traditional, was conducted in a novel medium, quite different due

⁷¹ Ibid paras 20 et seq.

⁷² Cases T-191/98, 212 to 214/98 *Atlantic Container Line AB and others v Commission* [2003] ECR II-3275, para 834.

⁷³ Notice on Market Definition (n 68) para 14.

⁷⁴ Simon Bishop and Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement* (3rd edn, Thomson Reuters 2010) 110-15.

⁷⁵ Lapo Filistrucchi and others, 'Market Definition in Two-Sided Markets: Theory and Practice' (2014) 10 *Journal of Competition Law and Economics* 293, 327.

⁷⁶ Only to a certain extent, the characteristics of a platform market can be taken into account by a standard SSNIP analysis. See for instance, US Department of Justice ("DOJ") *United States v First Data Corp*, 03 Civ 02169 (D.D.C. 2003).

to technological and business innovations and whose economics are poorly understood.⁷⁷

Before turning to the concept of dominance, this section first focusses on market definition, particularly the application of the SSNIP test in digital platform markets and the role of potential competition when it comes to defining relevant markets in the digital industry. As regards market dominance, a closer look is then taken at frequent misconceptions influencing the assessment of market power in the digital economy.

b. SSNIP Test in Two- or Multi-Sided Platform Markets

The concept of a two- or multi-sided platform market affects not only the pricing strategy of the platform, but also impacts the competitive constraints to the platform and the dynamics on the market. For instance, if an online gaming platform raises the prices on the gamers' side, a reduction in sales will not only be noticeable on this side, but also on the game developers' side, since interrelated demand and indirect network effects make the platform more valuable, the more gamers are using the platform. The reaction of the game developer's side will in turn negatively affect the gamer's side, since this side also appreciates the platform more, the more games are available on it.

Indirect network effects have to be considered in market definition, since the groups are interlinked by externalities and a change in price or quality on one side also impacts the other side(s). However, the 'feedback loop' between the platform sides is not taken into account by traditional market definition tools, such as the SSNIP test.⁷⁸ Thus, since the profitability of a price increase by a digital platform is limited by indirect network effects, the application of the traditional SSNIP analysis without adaption to digital platforms would entail the risk of defining markets either too narrowly or too widely, which directly affects the overall outcome of the competitive assessment.⁷⁹

⁷⁷ Geoffrey A Manne and Joshua D Wright, 'Google and the Limits of Antitrust: The Case against the Antitrust Case against Google' (2011) 34(1) *Harvard Journal of Law & Public Policy* 10, 21.

⁷⁸ Evans (n 16) 457.

⁷⁹ David S Evans and Michael Noel, 'The Analysis of Mergers That Involve Multisided Platform Businesses' (2008) 4(3) *Journal of Competition Law and Economics* 663, 667.

A standard SSNIP analysis assesses only one side of the platform. Looking at above example of a gaming platform, the SSNIP test would only scrutinise either the gamers' or game developer's side, while ignoring the other sides respectively. However, looking eg only at the profits gained by a hypothetical monopolist by charging higher prices on the gamers' side or the losses induced by the price increase on this side, the SSNIP test ignores the effects on the game developer's side, such as the loss of developers due to the smaller number of users. In addition, looking only at the gamers' side of the market, the SSNIP test misses to take into account the feedback effects deriving from the loss of game developers leading to a decrease in the number of users and so on. Thus, while looking only at the gamers' side, the SSNIP test may deem the price increase profitable, whereas an analysis under consideration of both sides may consider a price increase in this market unprofitable, which would lead to a wider market definition compared to the market defined under the one-sided SSNIP test.

In theory, the SSNIP test is a valid tool to define the relevant market in the digital economy, provided that the peculiarities of multi-sided platform markets are considered and the Commission takes into account the interrelation between the pricing structures on the platform sides when defining a relevant market in the digital economy. In practice, the application of the traditional SSNIP test has been limited to markets with single-sided externalities.⁸⁰ Yet, in all other cases, it has to be assessed whether a platform could raise the aggregate price profitably under consideration of the reduction in sales and the adjustment of prices on both sides in order to counteract a 'negative feedback loop'.⁸¹ For that purpose the SSNIP test has to be expanded in order to enable it to take also into account the changes in the total profit of the platform as well as demand elasticities and indirect network effects.⁸² In comparison to the standard SSNIP test, the expansion to multisided platforms, however, requires substantially more information and a much more complex economic evaluation.

Besides the SSNIP test, also other econometric models may be used to define the relevant market under consideration of the independence of demand of

⁸⁰ Filistrucchi and others (n 76) 329.

⁸¹ Evans (n 16) 458. For further information for the application of the SSNIP test in complex cases where a platform faces competition from both one- and two-sided businesses, see David S Evans and Michael Noel, 'Defining Antitrust Markets When Firms Operate Two-Sided Platforms' (2005) 3 Columbia Business Law Review 667, 669 et seq.

⁸² Filistrucchi and others (n 76).

the platform's sides.⁸³ However, also these tools face some difficulties in practice in the same manner as the SSNIP test and may open the gate to errors without adaption to the peculiarities of digital markets. Furthermore, even under application of other econometric models, a significant amount of data is needed in order to define the market in complex multisided markets.

c. Potential Competition

In traditional market definition, the Commission focusses on demand substitution, while little to no weight is given to potential competition.⁸⁴ Yet, this is often inadequate to analyse competitive constraints in digital markets. The digital economy is fast-moving and characterised by disruptive innovation, as history has shown in many instances, such as the replacement of Myspace by Facebook, or Bing and Yahoo by Google.⁸⁵ Potential competitors discipline incumbents even by the threat of replacement. Microsoft, for example, faced potential competition from software developers threatening to enter the market for word processing services, even before products such as Google Docs were actually available to consumers, and forced Microsoft to make its office software available to consumers free of charge.⁸⁶

Entering into markets rapidly in a short period of time is easier in digital markets than for the brick and mortar economy due to the lack of physical constraints in form of capacity limits etc.⁸⁷ The Commission should therefore

⁸³ See eg Lapo Filistrucchi, Tobias J Klein and Thomas Michielsen, 'Assessing Unilateral Effects in a Two-Sided Market: An Application to the Dutch Daily Newspaper Market' (2012) 8(2) *Journal of Competition Law and Economics*, 297 et seq.

⁸⁴ Ivo Van Bael and Jean-François Bellis, *Competition Law of the European Community* (5th edn, Kluwer 2010) 134 et seq.

⁸⁵ See eg Emma Barnett, 'Facebook dominance forces rival networks to go niche' *The Telegraph* (12 January 2011) <<http://www.telegraph.co.uk/technology/myspace/8253091/Facebook-dominance-forces-rival-networks-to-go-niche.html>> accessed on 27 July 2016; and Greg McFarlane, 'Google Vs Bing Vs Yahoo: The Search Engine Wars (MSFT, GOOG)' *Investopedia* (27 October 2015) <<http://www.investopedia.com/articles/investing/070915/google-vs-bing-vs-yahoo-search-engine-wars.asp>> accessed on 27 July 2016.

⁸⁶ Richard Waters, 'Microsoft office set to go free online' *Financial Times* (10 June 2010) <http://www.ft.com/cms/s/0/e167c556-74f4-11df-aed7-00144feabdc0.html?ft_site=falcon&desktop=true#axzz4ExVC5W00> accessed on 27 July 2016.

⁸⁷ Rato and Petit (n 20) 14.

assess market power under consideration of potential competition by including potential competitors in the relevant market in their assessment of the relevant market.

4. Dominance in Digital Markets

a. Introduction

After the definition of the relevant market for the application of Article 102 TFEU, the assessment moves on to the analysis whether the degree of market power reaches a dominant position in the markets in question. Dominance is defined as economic strength which enables an undertaking to behave to an appreciable extent independently of its competitors, customers and consumers.⁸⁸

In most cases, market power concerns the possibility of charging prices above competitive level. However, the nature of fast-moving digital markets has a significant impact on the methods used to assess dominance and antitrust analysis under Article 102 TFEU should (or better must) also take into account characteristics of digital platforms, such as network effects, economies of scale, congestion, platform differentiation or multi-homing. The application of traditional tools used by the Commission to find market power in digital markets may lead to misconceptions and errors. In order to avoid false positive or false negative outcomes, the Commission's policy towards Article 102 TFEU has to adapt its approach to the new economy. Possible caveats in and improvements for the enforcement policy in abuse of dominance cases the digital economy are outlined below.

b. Market Shares and Dominance in Dynamic Markets

Under the current enforcement standard, the Commission puts a strong emphasis on market shares in order to determine market power or

⁸⁸ Commission, 'Communication: Guidance on its enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' OJ C2009/45, 2, para 10.

dominance.⁸⁹ However, market shares are not suitable to measure market power in the digital economy.

First, digital markets are characterised by their fast-moving, innovative and disruptive nature causing a high fluctuation in market shares.⁹⁰ Since a dominant market position may not be held over time, a digital champion would according to settled case law not even be considered market dominant under Article 102 TFEU if it cannot maintain its market power.⁹¹

Furthermore, market shares may diverge widely on the sides of the platform it is active in, which makes a comprehensive market share analysis reflecting the market reality inconclusive.⁹² Besides that, although this is self-explanatory, a value-oriented market share calculation, such as the SSNIP test, might be impossible to apply in the majority of digital platforms since services are often offered free of charge for at least one side of the platform. This issue also occurs to a lesser extent where the platform cross-subsidises its sides. Although the goods or services provided by the platform are in these cases not free of charge, the prices charged to the sides fail to reflect the value. In cases where a market share calculation is possible due to econometric methods, market shares should not be decisive in the assessment of market power without consideration of the competitive landscape of digital markets.

Lastly, the temporal and fragile digital monopolies borne by the dynamic environment of digital markets are somewhat comparable to the concept of creative destruction introduced by Schumpeter in 1942.⁹³ Under this concept it is assumed that innovative entry by undertakings sustains economic growth and enhances economic innovation, which leads to temporary monopolies whose social benefits exceed social cost by far.⁹⁴ Here, innovation is pushed forward by rivals exerting intensive competitive pressure on the dominant

⁸⁹ See eg Case C-62/86 *AKZO Chemie BV v Commission* [1991] ECR I-3359, para 60, where the ECJ held that "very large market shares are in themselves evidence of the existence of a dominant position. That is the case where there is a market share of 50%".

⁹⁰ Rato and Petit (n 20) 11.

⁹¹ In Case 85/76 *Hoffmann-La Roche & Co AG v Commission* [1979] ECR 461, para 41, the ECJ held that market shares should be held "for some time" since an undertaking is only considered as market dominant when it holds power over time.

⁹² Monopolies Commission (n 6) 24.

⁹³ Joseph A Schumpeter, *Capitalism, Socialism and Democracy* (3rd edn Harper & Row, 1950) 82 et seq.

⁹⁴ See J Gregory Sidak and David J Teece, 'Dynamic Competition in Antitrust Law' (2009) 5(4) *Journal of Competition Law and Economics* 581, 604.

undertaking with intent to establish themselves on the market. This leads to temporarily dominant positions, which are regularly replaced, posing no threat but rather enhance competition on the merits on those markets.

c. Profit Margins

Besides market shares, a wide range of other factors, such as monopoly profits, may indicate dominance.⁹⁵ This was also emphasised in *United Brands* and *Hoffmann-La Roche*, where the ECJ held that a combination of several factors determine a dominant position.⁹⁶ Yet, establishing whether an undertaking is in fact earning an increased profit by its dominance on the market, particularly under consideration of the specific cost structure of digital markets, may be difficult in practice.⁹⁷ In *Microsoft*, the ECJ nevertheless explicitly emphasised the fact that Microsoft has gained a profit margin of approximately 81% on its operating system.⁹⁸ However, high profit margins of digital champions should not be considered as evidence of market power.⁹⁹ The high profit margins result from the nature of the digital economy and, therefore, do not indicate market power.

d. Competition for the Market

Dominance according to Article 102 TFEU is an objective concept that excludes other factors, such as the 'road to dominance' and how it was acquired.¹⁰⁰ However, in the digital economy, it might be feasible to take into account competition for the market instead of competition on the market. This boils down to an analysis similar to an assessment of bidding markets, where it might be possible to argue that intense competition has taken place for the

⁹⁵ Note that this does not countervail the fact that the lack of profits does not indicate that the undertaking is not dominant, since even if a dominant undertaking incurs losses, the losses may be recouped once competitors are squeezed out of the market.

⁹⁶ *United Brands* (n 62) para 66; *Hoffmann-La Roche* (n 92) para 39.

⁹⁷ Alison Jones and Brenda Sufrin, *EU Competition Law: Text, Cases, and Materials* (5th edn, OUP 2014) 345.

⁹⁸ *Microsoft* (n 13) para 464.

⁹⁹ Rato and Petit (n 20) 12.

¹⁰⁰ *Hoffmann-La Roche* (n 92) para 91.

market and the market position of the successful undertaking on the market is just a competitive outcome of that process.¹⁰¹

e. Economies of Scale

Most digital markets are characterised by very high fixed costs and low variable costs. Thus, scale economies over output on either one, more or all sides of the market¹⁰² can be expected.¹⁰³ In order to operate profitably, the prices charged by the digital player must be considerably above marginal cost in order to recover fixed costs.¹⁰⁴ For instance, Microsoft spent over \$ 10 billion for R&D per year for the last three years.¹⁰⁵ Assuming that one tenth of this sum is spent on the development of a new product, Microsoft has to recover approximately \$10 million by the sale of the product. While distribution costs in the digital economy are close to zero if the product is provided online to be downloaded by customers, Microsoft would have to recover the large investment by way of pricing considerably above marginal cost.

For these reasons, standard tools to measure market power produce false positives.¹⁰⁶ This shall be illustrated by the Lerner Index, which is one of the traditional methods to assess market power by way of analysing supply and demand elasticities.¹⁰⁷ Based on the assumption that competition drives the price towards marginal cost, the Lerner Index equates $\frac{P-MC}{P}$, where P is the

¹⁰¹ Rato and Petit (n 20) 14.

¹⁰² For example, while the development of an operating system entails high fixed costs, the marginal cost of distribution to software developers or consumers is low. However, in the case of a search engine, economies of scale would only occur on the users' side, since the cost of providing the search service for users (but not advertisers) is negligible compared to the high investments necessary to develop a search engine.

¹⁰³ Evans and Noel (n 82) 688.

¹⁰⁴ Phillip E Areeda, Herbert J Hovenkamp and John L Solow, *Antitrust Law: An Analysis of Antitrust Principles and their Application*, vol 2B (4th edn, Kluwer 2014) 109.

¹⁰⁵ Microsoft, 'Annual Report 2015' (31 July 2015) 16 <<https://www.microsoft.com/investor/reports/ar15/download-center/index>> accessed on 27 July 2016.

¹⁰⁶ Daniel A Crane, 'Market Power Without Market Definition' (2014) 90(1) Notre Dame Law Review 31, 59 et seq.

¹⁰⁷ Emanuela Arezzo, 'Is there a Role for Market Definition and Dominance in an effects-based Approach?' in Mark-Oliver Mackenrodt, Beatriz Conde Gallego and Stefan Enchelmaier (eds), *Abuse of Dominant Position: New Interpretation, New Enforcement Mechanisms?* (Springer 2008) 21, 32.

observed price and MC the undertaking's marginal cost.¹⁰⁸ While the index presenting the margin between price and marginal cost is zero in perfect competition, ie where the price equals marginal cost, the index rises with increasing market power up to one.¹⁰⁹

However, in scenarios where fixed costs are involved, the Lerner Index produces indifferent outcomes.¹¹⁰ Since digital market players normally charge prices above marginal cost due to their initial investments, the Lerner Index would always point to market power, without consideration that in order not to be dominant according to this method, the undertakings would have to operate unprofitably since they would not be able to recover their fixed costs. The issue that significant market power detected by traditional antitrust tools based on the existence of high fixed costs is not only limited to the Lerner Index, but applies also to other examination methodologies.¹¹¹

Furthermore, while economies of scale tend to limit competition on the market, diseconomies of scale may constrain market power. Diseconomies of scale lead at a certain size to cost disadvantages on one or more sides of a digital platform. An example for diseconomies of scale by limited capacities in the classical sense is the significant rise in cost for the development of features or improvements for an operating system, since investments in order to provide users with an updated version may be significantly higher when the operating system reaches a certain size or complexity. Besides that, a prominent example of the constraining effects of diseconomies of scale by way of a restriction of the number of users is the limited space for advertisements, since an overuse of advertisements by a search engine may reduce the attractiveness of the platform for users, which in turn might lead to a 'negative feedback loop' for advertisers.¹¹² The turning point between scale economies and diseconomies of scale has to be considered by the digital platform in its pricing structure and business strategy and may lead to a significant constraint of market power, which, in turn, has to be taken into account by the Commission in its assessment.

¹⁰⁸ Abraham P Lerner, 'The Concept of Monopoly and the Measurement of Monopoly Power' (1934) 1(3) *The Review of Economic Studies* 157, 169.

¹⁰⁹ Hovenkamp (n 14) 7.

¹¹⁰ Herbert J Hovenkamp, 'Response: Markets in IP and Antitrust' (2012) 100 *Georgetown Law Journal* 2133, 2140.

¹¹¹ *Ibid.*

¹¹² Kyle Bagwell, 'The economic analysis of advertising' in Mark Armstrong and Robert H Porter (eds), *The Handbook of Industrial Organisation*, Vol 3 (North-Holland 2007) 1755.

f. Network Effects

Network effects stemming from the interdependence of demand of the customer groups of a platform lead to price formations which differ significantly from those of one-sided businesses.¹¹³ In order to bring each customer side 'on board', a platform may find it commercially reasonable to choose an asymmetric pricing structure, where the group not as price sensitive subsidises the more valuable group to the platform.¹¹⁴ Even pricing below cost or zero on one side of the platform might be an economically feasible option.¹¹⁵ Most digital markets are financed through advertising.¹¹⁶ Facebook or Google, for instance, can be used free of charge by consumers, while advertisers have to pay in order to place advertisements on these platforms.

In markets characterised by indirect network effects, undertakings generally compete for (not in) the market.¹¹⁷ Once a market player reaches a certain level of market power, this position may easily be widened through positive feedback effects, which lead to a self-executing increase in the value of the platform.¹¹⁸ Thus, in order to stay on the market, competitors are forced to innovate and offer products or services that have the potential to countervail the advantage of the incumbent platform.¹¹⁹

At a certain size, however, positive network effects may stagnate and may even turn into negative network effects.¹²⁰ Network effects adversely impact a platform, for instance if effective 'matchmaking' turns to be exponentially more complex to provide. The negative external effects limiting the capacity of a platform lead inter alia to congestion, ie the increase of the search or

¹¹³ Eric G Weyl, 'A Price Theory of Multi-Sided Platforms' *American Economic Review* (2010) 100 *The American Economic Review* 1642, 1646.

¹¹⁴ Bernard Caillaud and Bruno Jullien, 'Chicken & egg: competition among intermediation service providers' (2003) 34(2) *RAND Journal of Economics* 309, 310; Robert O'Donoghue and A Jorge Padilla, *The Law and Economics of Article 102 TFEU* (2nd edn, Hart Publishing 2013) 139.

¹¹⁵ Mark Armstrong, 'Competition in Two-Sided Markets' (2006) 37(3) *RAND Journal of Economics* 668, 682.

¹¹⁶ Monopolies Commission (n 6) 20.

¹¹⁷ Evans and Noel (n 82) 688.

¹¹⁸ Evans and Schmalensee in Blair and Sokol (eds) (n 4) 421.

¹¹⁹ David S Evans and Richard Schmalensee, 'A Guide to the Antitrust Economics of Networks' (1996) 10 *Antitrust Magazine* 36, 36.

¹²⁰ David S Evans, 'The Antitrust Economics of Multi-Sided Platform Markets' (2003) 20(2) *Yale Journal on Regulation* 325, 330.

transaction costs for the platform.¹²¹ In order to counteract congestion, a platform operator may limit the platform capacity. An online dating portal, for instance, may at a certain amount of users not be able to provide efficient matchmaking services to its clients anymore. Since the capacity of the online portal is constrained by the size of its customer base, it may choose to limit access to certain users, eg academics. By doing so, the platform may provide its service more efficiently and users may also find it easier to find a suitable match. While reserving capacities to a homogenous user group may make the platform particularly attractive for the group of users the platform focusses on, the specialisation also opens the market for competitors counteracting platform concentration.¹²² The dynamics of platform markets, such as its self-executing increase of market power if the market player reaches a certain 'tipping' point as well as adverse effects if the platform exceeds a certain size, have to be taken into account by the Commission as a matter of policy in the assessment of dominance under Article 102 TFEU.

g. Product Differentiation

Similar to a self-selected capacity limitation, a further characteristic of digital platforms counteracting concentration on the market is product differentiation. Competition on a market is enhanced, if a platform chooses to distinguish itself from other competitors on the market. This may be done either by addressing a certain customer group (so called 'horizontal differentiation'), or by way of differentiating the quality of its products or services from other products or services provided on the market (so called 'vertical differentiation').¹²³ Consequently, it can be assumed that markets characterised by heterogeneous customer groups or markets open to various product or service qualities are less concentrated. Product differentiation is even enhanced by the digital economy, since digitalisation enables to differentiate a platform with relatively few resources at low cost.¹²⁴ Furthermore, horizontal differentiation may also be facilitated by exclusive contracts, since even a relatively small market player may be encouraged to

¹²¹ Marc Rysman, 'Competition Between Networks: A Study of the Market for Yellow Pages' (2004) 71(2) *Review of Economic Studies* 483, 484.

¹²² Monopolies Commission (n 6) 21 et seq.

¹²³ Jean Tirole, *The Theory of Industrial Organization* (MIT Press 1988) 96 et seq.

¹²⁴ Monopolies Commission (n 6) 21.

invest and enter the market as customers who value exclusivity may be easily attracted.¹²⁵

While product differentiation in general enhances competition on a market, it may at a certain intensity also limit competition, if the products or services do not exert any competitive pressure to the other players on the market, leading to different relevant markets for the purpose of the assessment under Article 102 TFEU.

h. Multi-Homing

Another factor which has to be considered in the assessment of market concentration in digital platform markets is multi-homing. Multi-homing is the possibility for customers to use several platforms at the same time.¹²⁶ Although, multi-homing is basically facilitated by the digital economy, and other providers are just 'one click away', barriers to switch to alternative providers may be high.

The possibility to use a variety of platforms depends on the extent of costs which users have to invest in order to switch between platform providers, ie monetary expenditures in form of subscription fees, or expenditures of time spent for searching, finding and familiarising with other platforms. For instance, there are virtually no switching costs for users changing between different online travel agencies. Multi-homing is simple for both sides of the market, since switching for travellers is simple and flight or hotel providers are able to provide their offers easily on various online travel agents platforms. However, in the example of Airbnb, switching costs are high, because both sides of the platform, ie travellers as well as private accommodation providers, acquire a reputation over time, which cannot be transferred to other platforms. This leads to a situation where virtually no multi-homing options are open for both sides. Also, changing between different social networks may incur high switching costs, since subscribing

¹²⁵ Robin S Lee, 'Vertical Integration and Exclusivity in Platform and Two-Sided Markets' (2013) 103(7) *The American Economic Review* 2960, 2961.

¹²⁶ In contrast to 'multi-homing', customers are 'single-homing' if they do not switch platform providers, but rather stick to one platform, see eg Evans and Noel (n 82) 690.

to another platform may heavily depend on the customer base for which the network is valued for.

The possibility for customers to engage in multi-homing is of significant importance for antitrust analysis as it heavily influences the degree of competition.¹²⁷ A platform which is just one among many is under significantly higher competitive pressure than one which does not suffer from competition at all. Yet, if one group is single-homing, while other groups are multi-homing, the only possible way to reach the single-homing group is over the platform, which leads to a so called 'competitive bottleneck'.¹²⁸ In this situation, the platform gains market power, which naturally is expected to charge higher prices on the multi-homing group.¹²⁹ However, since the platform still has to compete for its single-homing group, the profits gained from the higher prices charged on the multi-homing group are generally used to subsidise its exclusive single-homing users.¹³⁰

Besides network effects and product differentiation, multi-homing significantly influences the pricing structure chosen by the undertaking as well as competitive constraints on digital platforms. If high switching costs lead to a situation where users stick to a platform not of their first choice, innovative competitors would not be able to enter the market, even if their product or service would be superior to the one offered by the incumbent. These so called 'lock-in effects' would result in static and inefficient markets.¹³¹ As can be seen from above, the nature of most digital markets being two-sided or multi-sided is an important factor for understanding competition on these markets as well as the assessment of market power conducted by the Commission.

¹²⁷ Marc Rysman, 'The Empirics of Antitrust in Two-Sided Markets' (2007) 3(1) Competition Policy Newsletter 196, 208.

¹²⁸ Armstrong (n 116) 682.

¹²⁹ Commission, 'Note for the OECD Roundtable on Two-Sided Markets' (DAF/COMP/WD(2009)69) para 33
<http://ec.europa.eu/competition/international/multilateral/2009_jun_twosided.pdf>
accessed 25 July 2016.

¹³⁰ Armstrong (n 116) 669.

¹³¹ Joseph Farrell and Paul Klemperer, 'Coordination and Lock-In: Competition with Switching Costs and Network Effects' in Armstrong and Porter (eds) 967.

i. Big Data

Big data can be described as "gigantic digital datasets held by corporations, governments and other large organisations, which are then extensively analysed using computing algorithms"¹³² and may – besides of the factors mentioned above – be of significant relevance in the assessment of dominance. This was also emphasised by Margrethe Vestager when she was referring to antitrust issues arising from the collection of big data, saying that "what we need is to pay close attention to these markets and take action when it's necessary".¹³³

While the Commission has dealt with competition concerns stemming from big data only in merger control cases yet,¹³⁴ national competition authorities, notably the German FCO and the French Autorité de la Concurrence, have recently taken the first steps in assessing the impact of big data in antitrust proceedings, particularly in abuse of dominance cases.

In March 2016, the FCO initiated proceedings against Facebook for allegedly abusing its dominant position in social networks through its privacy terms and conditions.¹³⁵ Although the FCO stated that the mere violation of privacy

¹³² European Data Protection Supervisor, 'Meeting the challenges of big data: A call for transparency, user control, data protection by design and accountability' (Opinion 7/2015, 19 November 2015) [7 <https://secure.edps.europa.eu/EDPSWEB/webdav/site/mySite/shared/Documents/Consultation/Opinions/2015/15-11-19_Big_Data_EN.pdf>](https://secure.edps.europa.eu/EDPSWEB/webdav/site/mySite/shared/Documents/Consultation/Opinions/2015/15-11-19_Big_Data_EN.pdf). See also French Autorité de la Concurrence and German Federal Cartel Office ('FCO'), 'Competition Law and Data' (10 May 2016) [4 <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf>](http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf) accessed on 27 July 2016 where big data was defined as "large amounts of different types of data, produced at high speed from multiple sources, whose handling and analysis require new and more powerful processors and algorithms".

¹³³ Speech by Margrethe Vestager, 'Competition in a big data world' (DLD 16 in Munich on 17 January 2016) [7 <https://ec.europa.eu/commission/2014-2019/vestager/announcements/competition-big-data-world_en>](https://ec.europa.eu/commission/2014-2019/vestager/announcements/competition-big-data-world_en) accessed on 27 July 2016.

¹³⁴ In *Facebook/Whatsapp* (n 10), the Commission assessed whether the user data processed by WhatsApp would improve Facebook's advertising; in *Google/Double Click* (n 58), the Commission analysed whether the merger would impede effective competition by combining the databases of the parties; or in *TomTom/TeleAtlas* (Case COMP/M.4854) Commission Decision [2007] OJ C262, the Commission questioned whether data protection could be maintained after the merger.

¹³⁵ FCO, 'Bundeskartellamt initiates proceeding against Facebook on suspicion of having abused its market power by infringing data protection rules' Press release of 2 March 2016 [4 <http://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2016/02_03_2016_Facebook.html;jsessionid=8E5857E7658E09C3C14B2DDA2B9FD57E.1_cid378?nn=3591568>](http://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2016/02_03_2016_Facebook.html;jsessionid=8E5857E7658E09C3C14B2DDA2B9FD57E.1_cid378?nn=3591568) accessed on 27 July 2016.

law by a dominant undertaking does not amount to an abusive conduct under competition law, it is currently examining whether Facebook's market power enabled it to impose unfair (privacy) terms and conditions on its users.¹³⁶ Andreas Mundt, President of the FCO, explained the connection between antitrust and privacy law as follows:

*Dominant companies are subject to special obligations. These include the use of adequate terms of service as far as these are relevant to the market. For advertising-financed internet services such as Facebook, user data are hugely important. For this reason, it is essential to also examine under the aspect of abuse of market power whether the consumers are sufficiently informed about the type and extent of data collected.*¹³⁷

While the imposition of unfair trading conditions might infringe Article 102(a) TFEU, it is questionable whether Facebook is dominant in the first place. Especially with view to the *Facebook/WhatsApp* proceedings on EU level, where the Commission considered that Facebook faced plenty of competition in the market for social networking services.¹³⁸ This case illustrates very clearly that digital markets and their peculiarities including big data raise many novel and complex issues, which have to be faced by competition law enforcers. For the sake of legal clarity, a decision by the FCO would be desirable. However, it is quite possible (although undesirable) that the FCO would rather choose to find a consensual agreement with Facebook under which Facebook agrees to change its privacy terms and conditions. Since competition authorities have a long way to go before the challenges by digital markets can be faced effectively, the procedural tools have to be chosen wisely by competition law enforcers in order to reach legal clarity and certainty in abuse of dominance cases in digital markets.¹³⁹

¹³⁶ The imposition of unfair trading conditions as an abuse of a dominant position is a well-established principle under Article 102(a) TFEU.

¹³⁷ FCO (n 136).

¹³⁸ See *Facebook/WhatsApp* (n 10).

¹³⁹ See section 4.6 below.

5. Abuse of a Dominant Position in Digital Markets

a. Introduction

While the mere fact that an undertaking is holding a dominant position is not prohibited by Article 102 TFEU, abusive conduct infringes EU competition law. The concept of abuse was defined by the ECJ as follows:

*The concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position, which is such as to influence the structure of a market, where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.*¹⁴⁰

The concept of abuse as established under the case law is to a certain extent ambiguous. In order to assess whether an undertaking is abusing its dominant position, two elements have to be fulfilled, ie first, whether the market structure is already weakened by the presence of a market dominant undertaking, and, second, whether the dominant undertaking engages in a conduct further restricting competition.¹⁴¹ In this context, the ECJ clarified that for an infringement of Article 102 TFEU it is sufficient that the abusive conduct of a dominant undertaking is capable of restricting competition, rather than having an actual impact on the market.¹⁴²

The concept of abuse has been interpreted that an abuse may manifest in two forms, ie that the conduct aims to maintain or strengthen the market power of the dominant undertaking by way of foreclosing competitors (exclusionary abuse), or that the conduct directly exploits the market power of the dominant undertaking for the detriment or discrimination of other market participants

¹⁴⁰ *Hoffmann-La Roche* (n 92) para 91.

¹⁴¹ *Ibid* para 123.

¹⁴² See eg Case T-203/01 *Manufacture française des pneumatiques Michelin v Commission* [2003] ECR II-4071, para 239; or Case T-301/04 *Clearstream Banking AG and Clearstream International SA v Commission* [2009] ECR II-3155, para 144.

(exploitative abuse).¹⁴³ According to established case law, both, exclusionary as well as exploitative abuses of a dominant undertaking fall under the scope of Article 102 TFEU.¹⁴⁴

Many decisions on the abuse of a dominant position under Article 102 TFEU taken by the Commission are among the most controversial and discussed competition law decisions. Most notably, the Commission's decision in *Microsoft* concerning the refusal to supply interoperability information to its competitors, for which Microsoft was fined € 497.2 million.¹⁴⁵ Furthermore, the Commission and the EU Courts have been frequently criticised not to be primarily concerned with the maintenance of competition as such but rather with the protection of particular competitors.¹⁴⁶ Besides that, the criticism on the formalistic approach in Article 102 TFEU cases taken by the Commission and the EU Courts lead the Commission to launch a review of the application of Article 102 TFEU on exclusionary abuses in 2004¹⁴⁷ and the Commission's Guidance Paper.¹⁴⁸ By way of publication of the Guidance Paper, the Commission attempted to embrace a more effects-based approach under the focus on exclusionary conduct in its enforcement policy.¹⁴⁹ However, the EU Courts have not gone along with the Commission's attempt and retained a rather formalistic approach towards Article 102 TFEU.¹⁵⁰ The path chosen by the EU Courts, is especially problematic in digital markets, whose characteristics may not be taken into account in a formalistic analysis, leading to intervention by the Commission ultimately being to the detriment of innovation and consumers.

¹⁴³ Massimo Motta and Alexandre de Stree, 'Exploitative and Exclusionary Excessive Prices in EU Law' in Claus-Dieter Ehlermann and Insabel Atanasiu (eds), *EU Law, European Competition Law Annual 2003: What is an abuse of a dominant position?* (Hart Publishing 2006) 91.

¹⁴⁴ Maria Ioannidou, *Consumer Involvement in Private EU Competition Law Enforcement* (OUP 2015) section 4.2.2.

¹⁴⁵ *Microsoft* (n 25); upheld by the General Court in *Microsoft Corp v Commission* (n 13).

¹⁴⁶ Richard Whish and David Bailey, *Competition Law* (8th edn, OUP 2015) 185.

¹⁴⁷ Commission, 'DG Competition discussion paper of December 2005 on the application of Article 82 of the Treaty to exclusionary abuses' <<http://ec.europa.eu/competition/antitrust/art82/discpaper2005.pdf>> accessed on 27 July 2016.

¹⁴⁸ Guidance Paper (n 89).

¹⁴⁹ According to *ibid*, para 3, it cannot be understood as set of guidelines on the law.

¹⁵⁰ *Ezrachi* (n 64) 191.

b. Abuse in Digital Markets

The examination of an abusive conduct in digital markets does not require any adaption of the legal framework to the digital economy, or to put it differently, Article 102 TFEU theoretically provides a sufficient legal framework in order to deal with abuse of dominance in digital markets. However, the identification of abusive conduct may encounter some difficulties in the digital economy.¹⁵¹ As discussed above, an abusive conduct may be categorised in exclusionary and exploitative abuses. As can be seen from previous cases in the digital economy, exclusionary conduct may arise in form of access foreclosure, leveraging of market power by favouring own services, creating an artificial advantage, or by tying products or services.¹⁵² An abuse of a dominant position in digital markets may also show exploitative elements, for example, by artificially raising switching costs for user, by limiting advertising space, or simply by exploiting third-party content and data.¹⁵³

The selective focus on exclusionary conduct, as advocated by the Commission in its Guidance Paper,¹⁵⁴ is particularly important in digital markets, where due to the high number of complaints against digital champions, resources have to be effectively utilised only where appropriate.¹⁵⁵ While it has to be refrained from assessing an abusive conduct by a digital champion based on a form-based analysis not suited to deal with the peculiarities of digital markets, an effects-based approach based on theories of harm and economic thinking needs to be implemented, in order to maintain effective competition on digital markets.¹⁵⁶ Also the fact that it is sufficient for an abusive conduct to simply be capable of restricting competition on the market seems too formalistic and not appropriate without further clarification.¹⁵⁷

¹⁵¹ Rato and Petit (n 20) 22.

¹⁵² For a discussion on the special responsibility of dominant undertakings in digital markets see speech by Joaquín Almunia, 'Competition in the Online World' (LSE Public Lecture on 13 November 2013) <http://europa.eu/rapid/press-release_SPEECH-13-905_en.htm> accessed on 27 July 2016.

¹⁵³ Monopolies Commission (n 6) 114.

¹⁵⁴ Guidance Paper (n 89).

¹⁵⁵ See also Rato and Petit (n 20) 17.

¹⁵⁶ Abbott B Lipsky, 'Antitrust Economics – Making Progress, Avoiding Regression' (2003) 1 George Mason Law Review 163, 167 <https://www.lw.com/upload/pubcontent/_pdf/pub3990_1.pdf> accessed on 27 July 2016.

¹⁵⁷ Rato and Petit (n 20) 19.

6. Consequences of Infringing Article 102 TFEU

a. Introduction

The Commission has extensive powers to investigate a suspected abuse of a dominant position under Regulation 1/2003.¹⁵⁸ Where the Commission has found a breach of Article 102 TFEU, it has the power to impose a fine on the infringing undertaking of up to 10% of the total worldwide turnover of the preceding business year.¹⁵⁹ Besides that, Article 7(1) Regulation 1/2003 provides that the Commission has the power to adopt a formal decision in order to bring the infringement to an end, as well as to impose behavioural remedies to order the dominant undertaking to cease and desist from the infringement and, where necessary, to impose structural remedies to order the dominant undertaking to actively adopt positive measures to end the unlawful conduct.¹⁶⁰

Furthermore, according to Article 8(1) Regulation 1/2003, "in cases of urgency due to the risk of serious and irreparable damage to competition", the Commission may order interim measures on basis of a preliminary finding of an antitrust infringement. The Commission's right to grant interim relief was established by the ECJ in *Camera Care*,¹⁶¹ but it never made use of this power ever since Regulation 1/2003 was adopted.¹⁶²

As an alternative to adopt a formal finding of an infringement under Article 7(1) Regulation 1/2003, the Commission has also the power to close the file on basis of legally-binding commitments made by the undertaking under investigation according to Article 9 Regulation 1/2003, in course of which no fines are imposed and an infringement does not have to be proven by the Commission. The idea behind commitment decisions stems from procedural economy considerations to rapidly bring otherwise highly complex cases to an end.¹⁶³ This is supported by the fact that undertakings voluntarily entering into a commitment agreement with the Commission are

¹⁵⁸ Council Regulation (EC) 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 on the Treaty [2003] OJ L 1/1.

¹⁵⁹ Article 23 Regulation 1/2003. For the methodology used by the Commission in setting fines see Commission, 'Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation 1/2003' [2006] OJ C210/2.

¹⁶⁰ Article 7(1) Regulation 1/2003.

¹⁶¹ Case 792/79 R *Camera Care Ltd v Commission* [1980] ECR 119.

¹⁶² Whish (n 147) 268.

¹⁶³ See Case C-441/07 P *Commission v Alrosa Company Ltd* [2010] ECR I-5949, para 35.

highly unlikely to appeal against a decision taken under Article 9 Regulation 1/2003.¹⁶⁴ Commitment decisions are regularly used in Article 102 TFEU cases due to their complexity and bring benefits for both parties, ie a rapid completion of a complex case on the side of the Commission and no formal decision on the side of the undertaking under investigation.¹⁶⁵

b. Procedural Shortcomings in Digital Markets

The policy adopted by the Commission towards abuse of dominance cases suffers from some serious shortcomings when it comes to digital markets. First, the duration of the proceedings takes too long for the dynamic nature of these markets. For instance, the investigation in *Google Search* is pending since November 2010, while antitrust proceedings have been formally opened in July 2016 and the Commission has yet to face a long way down until a decision will be reached.¹⁶⁶ Competition policy has to secure effective competition. Competition on the merits, however, cannot be guaranteed if proceedings against digital champions last for years (or nearly decades) during which competition may be suppressed by the dominant undertaking.¹⁶⁷

This might be countered, for instance, by interim measures according to Article 8(1) Regulation 1/2003. While the power to order interim relief is not used by the Commission, it might be especially useful in the digital economy which is characterised by rapid and disruptive innovation. Here, the action based on a preliminary finding may be particularly justified, since the risk of serious and irreparable damage to competition is quite likely, given the risk of eliminating or foreclosing innovative competitors over years.¹⁶⁸

¹⁶⁴ See Wouter P J Wils, 'The Use of Settlements in Public Antitrust Enforcement: Objectives and Principles' (2008) 31 (3) *World Competition: Law and Economics Review* 335.

¹⁶⁵ See Commission, 'To commit or not to commit? Deciding between prohibition and commitments' Competition policy brief of March 2014 (Issue 3) <http://ec.europa.eu/competition/publications/cpb/2014/003_en.pdf> accessed on 27 July 2016.

¹⁶⁶ For details see *Google Search* (n 40).

¹⁶⁷ The shortcomings of the efficiency of the antitrust enforcement leading to lengthy procedures were particularly pronounced in *Microsoft (Tying)* (n 27) or *Microsoft* (n 13).

¹⁶⁸ In *Monopolies Commission* (n 6) 116, it is also argued that interim measures might be used in order to test remedies on the market before they are declared binding.

Secondly, commitment decisions according to Article 9 Regulation 1/2003 do not seem suitable in the digital economy. Digital markets are of significant relevance for the economy, and the specific market features of digital markets raise complex and novel issues. Thus, it is of crucial importance that formal decisions are adopted to develop the law, for the sake of legal certainty, instead of shortening proceedings based on commitments offered by digital champions. In general, it seems that competition authorities may also use commitment proceedings in order to achieve outcomes which would have probably not been reached by way of formal proceedings.¹⁶⁹ This is aggravated by the fact that commitment decisions have never been appealed by the parties addressed by the commitment decision in practice.¹⁷⁰ Furthermore, reaching a commitment agreement might prove difficult in fast-changing digital markets. This has been shown in *Google Search*, where Google submitted several commitment offers, which – based on the market reactions obtained from March 2013 to February 2014 – were preliminarily regarded as suitable, but no decision on the commitments was reached and in the end statement of objections have been issued and formal proceedings according to Article 7(1) Regulation 1/2003 were opened by the Commission.¹⁷¹ However, it is fair to acknowledge that these proceedings were quite special due to the political pressure exerted by the EP on the Commission to take a harsher stance in the digital economy and to use the opportunity of *Google Search* to "clarify some aspects of competition law with regard to digital practices and to close the difficult gaps between the rights of market dominant companies, free competition and consumer protection",¹⁷² which could most probably only be done by confrontational proceedings according to Article 7(1) Regulation 1/2003.

Lastly, political pressure and high publicity is another aspect which has to be considered in the enforcement policy of the Commission in digital markets. Digital markets attained more interest from the media than any other industry. However, the Commission would have to be conscious not to protect

¹⁶⁹ Monopolies Commission (n 6) 115.

¹⁷⁰ See Manuel Kellerbauer, 'Playground instead of playpen: The Court of Justice of the European Union's Alrosa judgement on Article 9 of Regulation 1/2003' (2011) 32(1) European Competition Law Review 1.

¹⁷¹ See *Google Search* (n 40).

¹⁷² See eg EP, 'Google antitrust proceedings: Digital business and competition' Briefing of July 2015
 <[http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/565870/EPRS_BRI\(2015\)565870_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/565870/EPRS_BRI(2015)565870_EN.pdf)> accessed on 27 July 2016.

competitors not as innovative or efficient as the incumbents just because complaints attracted strong media attention.¹⁷³

V. Conclusion

Digital markets are a key economic driver. Thus, it is of significant importance for competition policy on EU level to maintain and protect competition on the merits, which leads to innovation and consumer welfare. In the past years, the Commission has shown that, where appropriate, it is willing to intervene in abusive conduct on digital markets.

However, the challenges faced by the Commission have to be overcome in order to maintain and protect competition on the merits in the digital economy in the future. The positions taken in the discussion on how to proceed with the enforcement of Article 102 TFEU, on the one hand to abstain from intervention in digital markets at all, and on the other hand to introduce an ex-ante regulation in order to secure effective competition are considered excessive.

There is little reason for thinking that competition cannot work in digital markets and may not be protected by the current legal framework under Article 102 TFEU. Nevertheless, effective competition policy design requires careful thought. Characteristics of digital markets need to be taken into account when dealing with abusive conduct, particularly in the definition of relevant markets and the assessment of market dominance in those markets. The policy goals have to be aligned with innovation and consumer welfare. In this regard, the adoption of an effects-based approach by the Commission and the EU Courts is more necessary than ever, in order to achieve predictable legal standards and coherent outcomes.

Furthermore, the complexity and fast-moving nature of digital markets shall not lead to commitment decisions according to Article 9 Regulation 1/2003. Especially in novel economies such as digital markets it is of crucial importance to build legal certainty.

¹⁷³ Monopolies Commission (n 6) 115.