Ex-Post Application of Structural Remedies to Large Online Platforms at a National Level(*)

Büyük Çevrimiçi Platformlara Yapısal Çözümlerin Ulusal Düzeyde *Ex-Post* Uygulaması

Muzaffer EROĞLU(**)
Alptekin KÖKSAL(***)

Abstract:

The enormous market power enables Online Platforms to leverage their data and economic power to spread into the digital sector. Abuse of dominant position through various means, mainly exclusionary conduct, such as leveraging or self-preferencing, can be seen in the conduct of Online Platforms. Most countries, including international authorities such as the EU Commission, concluded that there is a gap in the law in the context of digital competition and decided to fill this gap through extensive regulation. However, digital life has just blossomed and is proliferating with technological development. Regulating a fast-changing and developing area would harm its character and innovative nature. Therefore, instead of a rushed ambition to regulate the area, which could be disruptive and harmful to the competition, all alternative methods should be considered before taking ambitious steps. In that case, a well-defined ex-post method could become a better alternative to address the competition problems in the digital sector. Therefore, this paper argues that recent competition interventions in the digital sector seem to be quite relevant and effective against competition problems present in the sector. Instead of an ex-ante regulation, which may hinder innovation and development in the long term, an ex-post could be the relevant solution to the current situation.

Keywords:

Competition, Structural Remedies, Ex-post Regulation, Digital Sector, Online Platforms, Digital Markets Act.

(*) Araştırma Makalesi / *Research Article*
Yayın Kuruluna Ulaştığı Tarih: 27.10.2023
Yayınlanmasının Kabul Edildiği Tarih: 07.02.2024
DOI: https://doi.org/10.58733/imhfd.1451588
Bu makaleye atıf için; EROĞLU, Muzaffer / KÖKSAL, Alptekin, "*Ex-Post* Application of Structural Remedies to Large Online Platforms at a National Level", **İMHFD**, C. 9, S. 1, 2024, s. 135-169

(**) Dr. Öğr. Üyesi, Boğaziçi Üniversitesi, Hukuk Fakültesi, Ticaret Hukuku Anabilim Dalı, İstanbul - Türkiye
E-posta: muzaffer.eroglu@bogazici.edu.tr
Orcid: https://orcid.org/0000-0003-0079-1781

(***) Öğr. Gör. Dr., İstanbul Medeniyet Üniversitesi, Hukuk Fakültesi, Fikri Mülkiyet Hukuku Anabilim Dalı, İstanbul - Türkiye
E-posta: alptekinkoksal@hotmail.com
Orcid: https://orcid.org/0000-0002-8055-4251

Öz:

Büyük Platformların verilerinden ve ekonomik güçlerinden yararlanarak elde ettiği pazar gücü, teşebbüslerin bütün dijital sektöre yayılmasını sağlamaktadır. Büyük Platformların pazarda hâkim durumları kaynaklı davranışlarında, hâkim durumun çeşitli yollarla, özellikle kaldıraç etkisi yoluyla bir pazardaki gücün bir başka pazara aktarılması veya kendini tercih etme gibi dışlayıcı davranışlar yoluyla kötüye kullanılması mümkündür. Avrupa Birliği gibi uluslararası aktörler de dahil olmak üzere çoğu ülke, dijital rekabet bağlamında rekabet mevzuatının uygulanmasında sorunlar olduğu sonucuna varmış ve bu sorunun üstesinden kapsamlı ex-ante düzenlemelerle gelmeye çalışmaktadırlar. Bir başka deyişle dijital piyasaları regüle etmeye çalışmaktadırlar. Ancak dijital sosyal ve ticari hayat yeni yeni ortaya çıkmakta ve teknolojik gelişmelerle birlikte de hızla ilerlemekte ve değişmektedir. Hızla değişen ve gelişen bir alanı düzenlemek, elbette onun karakterine, işleyişine ve pek tabii yenilikçi yapısına zarar verebilir. Bu nedenle, rekabeti bozucu ve zararlı olabilecek, aceleci bir ex-ante düzenleme çabası yerine, bu tarz iddialı adımlar atmadan önce tüm alternatif yöntemlerin sonuna kadar değerlendirilmesi gerekmektedir. Bu durumda, iyi tanımlanmış ve düzgün uygulanan bir ex-post yöntem, dijital sektördeki rekabet sorunlarının çözümünde daha iyi bir alternatif haline gelebilmektedir. Sonuç olarak bu makale, dijital sektöre yönelik ulusal düzeyde son dönemde yapılan rekabet müdahalelerinin sektörde mevcut rekabet sorunlarına karşı oldukça doğru ve etkili göründüğünü ileri sürmektedir. Uzun vadede yenilik ve gelişmeyi engelleyebilecek bir ex-ante düzenleme yerine, ex-post bir düzenleme mevcut duruma uygun bir çözüm olabilir.

Anahtar Kelimeler:

Rekabet, Yapısal Çözümler, Ex-post Düzenleme, Dijital Sektör, Çevrimiçi Platformlar, Dijital Piyasalar Yasası.

I. INTRODUCTION

The emergence of the Internet and technological developments afterward have led to the creation of small, medium, and big-scale online platforms. Subsequently, some platforms, such as Amazon, Apple, Alphabet (Google), Microsoft, Meta (Facebook), Alibaba, Tencent, and WeChat - all considered Large Online Platforms, have gained unprecedented market power recently. These platforms are among the world's most successful and thus ranked as the highest undertakings in the top ten largest companies, with over a trillion-dollar market capitalization[1]. One of the primary sources of the unprecedented market power of technology giants stems from the effective utilization of data and data analytics in their respective platforms. In addition to data collection and utilization methods, technology giants are experts in mergers and acquisitions (M&As), in which they acquire start-ups to utilize data capabilities.

In recent decades, technology giants have extensively used mergers without attracting competition authorities' attention. Hundreds of acquisitions have been

[1] Top 100 largest companies in the world by market capitalisation in 2023, Available at: https://disfold.com/world/companies/.

made by technology giants -the Big Five (Amazon, Apple, Alphabet, Microsoft, and Meta)- over the last decade[2]. These acquisitions have created an extensive discussion as these acquisitions are defined as "R&D (Research and Development) mergers" by acquirers. Still, many of them were considered a "killer acquisition" type where dominants buy out undertakings that are already competitors or could have become their rivals. Either way, killer acquisitions or not, the Big Five have utilized this method to swallow smaller undertakings, their data, and technology. By this means, technology giants leveraged their market powers or entrenched their positions in specific markets. At that time, none of these M&As had been blocked, and only a few had been approved with conditions[3]. Most of these merger investigations overlooked the non-horizontal links between the platform owner and the acquired. The European Commission, in recent investigations such as Google/Fitbit, acknowledges this issue today[4].

As a result of leveraging market power and acquisitions, technology giants successfully externalized indirect network effects, and markets tipped in favor of their platforms. In other words, a value chain has been created through data collection and network effects. This power enables them to enter new digital markets quickly as they have the data and economic power. Accordingly, many platforms' owners operate as ecosystems[5]. In other words, consumers are offered many different types of goods and services with various underlying business interests. On top of that, platform owners have unique dual roles in platforms. For example, Amazon is an intermediary between third-party companies and consumers; Amazon is also a competitor to these companies. In time, platforms have become huge, and commercial users have become dependent on the platform itself. In other words, platform owners have started acting as rivals and *de facto*

---

2 Furman Report, 'Unlocking digital competition: Report of the Digital Competition Expert Panel' HM Treasury (2019), Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf, 91.

3 The most noteworthy acquisitions of Big 5 can be listed as; Google/YouTube, Google/DoubleClick, Microsoft/Skype, Google/Motorola, Facebook/Instagram, Microsoft/Yammer, Google/Waze, Apple/Beats, Google/Nest, Google/Deepmind, Facebook/WhatsApp, Facebook/Oculus, Microsoft/LinkedIn, Apple/Shazam, Amazon/Ring and Google/Fitbit.

4 Case No COMP/M.9660, Google/Fitbit [2020] Prior Notification of a Concentration OJ 2020/C 210/09.

5 For more information: PETIT, Nicholas, 'Technology Giants, the "*Moligopoly*" Hypothesis and Holistic Competition: A Primer' (2016) European University Institute 2016; VAN DE WAERDT, Peter J., "Everything the Data Touches is Our Kingdom': Market Power of 'Data Ecosystems", in José Rivas (ed), World Competition Law and Economics Review, (Kluwer Law International; Kluwer Law International 2023, Volume 46 Issue 1) pp. 65-98; FALCE, Valeria and FARAONE, Nicola M.F., 'Digital Ecosystems in the Wake of a Legislative/Regulatory Turmoil: A First (Tentative) Antitrust Assessment of the Italian (and European) Experience in the AGCM Case Law', in José Rivas (ed), **World Competition Law and Economics Review** (Kluwer Law International; Kluwer Law International 2023, Volume 46 Issue 1) 44.

regulators between consumers and commercial users (sellers, advertisers, and more). In such a situation, abuse of the dominant position through exclusionary conduct, such as leveraging or self-preferencing, is more likely to happen.

Consequently, the question of how competition authorities and courts deal with the emerging issue should arise. The debate has recently expanded from academia and practice to decision-makers and rule-makers. Ultimately, in December 2020, the European Commission published two regulations, the Digital Markets Act (DMA) and the Digital Services Act (DSA), as a part of the European Digital Strategy[6]. On 4 October 2022, the European Council approved the DSA[7]. Therefore, technology giants will have until 1 January 2024 to comply with the DSA provisions. Similarly, the DMA entered into force on 1 November 2022 and became applicable in May 2023[8].

The EU institutions and the national competition authorities worldwide are creating a roadmap to the newly emerged issue through online platforms[9] The new regulations, especially the DMA, introduce specific rules to some online platform owners. Thus, particular intermediaries are considered "gatekeepers," and stricter rules are imposed. Accordingly, in addition to unprecedentedly high fines, these platform owners will face additional measures that could even lead to the break-up of the technology giants. Similarly, Türkiye is planning its online platform regulation: A detailed report and policy suggestion by the TCA[10] and the new E-commerce Act (*Elektronik Ticaretin Düzenlenmesi Hakkında Kanun*) came into force on 1 January 2023[11]. However, the DMA and DSA regulations, the Türkiye E-Commerce Act, and many similar regulations primarily include *ex-ante* measures. The effectiveness and necessity of this

6 Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) COM/2020/842 final; Proposal for a Regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) and amending Directive 2000/31/EC COM/2020/825 final.

7 Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act) (Text with EEA relevance) PE/30/2022/REV/1 OJ L 277, 27.10.2022.

8 Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (Text with EEA relevance) PE/17/2022/REV/1 OJ L 265, 12.10.2022.

9 Such as the Turkish Competition Authority (Rekabet Kurumu) and the German Federal Cartel Office (Bundeskartellamt).

10 E-pazaryeri Platformlari Sektor Incelemesi Nihai Raporu, April 2022 Ankara. Available at: https://www.rekabet.gov.tr/Dosya/sektor-raporlari/e-pazaryeri-si-raporu-pdf-20220425105139595-pdf.

11 E-Commerce Act no. 7416 (Türkiye).

sector-specific regulation are reasonably arguable for the digital sector. It is not easy to measure the future effects of such a regulation on the very dynamic digital industry.

This study aims to discuss an alternative and probably more effective measure for violating Article 102 TEFU[12] in the digital sector: an exclusively *ex-post* mechanism and structural remedies of Article 7 of Regulation 1/2003[13]. In this sense, the power to assess market power and exercise *de facto* regulatory powers regarding the online world would be on the national and transnational competition authorities instead of inexperienced and ill-suited councils and parliaments. The digital sector is rapidly growing, and competition in this sector is highly characterized by innovation and efficiency. Therefore, an *ex-ante* sector-specific regulation poses risks to the competition itself in the sector. Instead, when necessary, the power to characterize the market should be on the competition authorities instead of rule-makers. To do so, applying behavioral and structural remedies as the primary method, an *ex-post* mechanism, for abuse of dominant position situations within a well-defined framework in the digital sector seems to suit the sector's unique characteristics better.

In this manner, the following section focuses on the composition of current behavioral and structural remedies in the EU. Following that, the competition law issues regarding the market power and abuses in the digital sector are briefly mentioned to introduce the "remedies" proposed by the European Commission afterward. Then, the new amendments to the Act on the Protection of Competition No. 4054 in Türkiye regarding the application of structural remedies nationally are examined. The applicability of structural remedies rather than sector-specific regulation, such as the DMA and Türkiye E-Commerce Act, is discussed as a solution. Recent structural remedies applied by the TCA will be explained as examples. However, it is essential to note that this paper focuses on remedies as an *ex-post* method for abuse of dominant positions

[12] Article 102: "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. Such abuse may, in particular, consist in (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; (b) limiting production, markets or technical development to the prejudice of consumers; (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (d) concluding contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts." Treaty on the Functioning of the European Union OJ C 326, 26.10.2012.

[13] Council Regulation (EC) No 1/2003 of 16 December 2002 on implementing the rules on competition laid down in Articles 81 and 82 of the Treaty (Text with EEA relevance) OJ L 1, 4.1.2003.

cases in the digital sector, not an *ex-ante* mechanism for merger control. Structural remedies for merger control are entirely out of context here. The intention is to discuss the application of structural remedies by national competition authorities *ex-post* to abuse of dominant position violations. Examples of cases are mainly chosen from decisions of the TCA.

II. BEHAVIORAL AND STRUCTURAL REMEDIES APPLIED TO ABUSE OF DOMINANT POSITION INFRINGEMENTS

Regulation empowers the European Commission 1/2003[14]. Imposing structural remedies as a response to competition infringements is particularly important for infringements in terms of Article 102 TFEU. However, due to behavioral remedies and Article 9 of Regulation 1/2003, which regulates commitment procedures endowed to undertakings to offer commitments for the alleged infringements, European law's application of structural remedies stayed relatively narrow and limited[15]. A structural remedy's purpose is to end the competition infringement of a dominant undertaking effectively. Article 7(1) of Regulation 1/2003 explicitly states, "For this purpose, it may impose on them any behavioral or structural remedies which are proportionate to the infringement committed and necessary to bring the infringement effectively to an end[16]."

Being a remedy is a critical term in the regulation. For instance, a fine imposed by the Commission is not considered a remedy in EU Law[17]. Article 23 of Regulation 1/2003 introduces "fines" as a penalty for undertakings[18]. However, remedies do not intend to fine the undertakings; instead, it is a matter of restoring competition by ending the infringement effectively. Based on this, it can be deduced that a fine is not a remedy but a punitive tool[19]. However, a remedy is not a punishment in this sense. Although some argue that structural remedies are also seen as a punitive tool as a last resort to punish dominant

---

14 Council Regulation (EC) No 1/2003 of 16 December 2002 on implementing the rules on competition laid down in Articles 81 and 82 of the Treaty (Text with EEA relevance) OJ L 1, 4.1.2003.

15 WHISH, Richard and BAILEY, David, **Competition Law** (8th ed, Oxford University Press, 2015), 177.

16 Article 7(1) of Regulation 1/2003.

17 MAIER-RIGAUD, Frank, HELLSTROM, Per and BULST, Friedrich Wenzel, 'Remedies in European Antitrust Law' (2009) 76 **Antitrust Law Journal** 1, 43-63, 44 and 50.

18 Article 23 of Regulation 1/2003.

19 Deterrence effect seems to be minimal in the digital sector; MAIER-RIGAUD, Frank, HELLSTROM, Per and BULST, Friedrich Wenzel, 'Remedies in European Antitrust Law' (2009) 76 **Antitrust Law Journal** 1, 43-63, 44.

undertakings[20], The *ratio legis* of Article 7 of Regulation 1/2003 is to restore healthy competition in a market. Recital 12 of Regulation 1/2003 states:

> "*This Regulation should make explicit provision for the Commission's power to impose any remedy, whether behavioural or structural, which is necessary to bring the infringement effectively to an end, having regard to the principle of proportionality... Changes to the structure of an undertaking as it existed before the infringement was committed would only be proportionate where there is a substantial risk of a lasting or repeated infringement that derives from the very structure of the undertaking*[21]."

As can be seen clearly, EU competition rules dictate that regulatory changes to the business structure of dominant undertakings are possible by imposing structural remedies on market participants. Although a generally accepted definition does not exist, a structural remedy can be breaking up undertakings by dividing them into individual business units, releasing or transferring intellectual property rights, selling businesses, shares, or subsidiaries to third parties, etc[22]. Behavioral remedies have a more comprehensive range compared to structural ones. A behavioral remedy can be general commitments to behave or not to act in a particular manner, obligations to license key technology, and providing access to infrastructure or critical assets[23]. Motta et al. argue that the most distinguishing characteristic of structural remedies is the change in property rights[24]. While structural remedies entail a change, behavioral remedies dictate how these rights can be exercised[25].

Article 7(1) of Regulation 1/2003 states, "Structural remedies can only be imposed either there is no equally effective behavioural remedy or where any

---

20 TAJANA, Alessandro, 'If I Had a Hammer... Structural Remedies and Abuse of Dominant Position' (2006) 7 **Competition and Regulation in Network Industries** 1, 3-29, 4.

21 Recital 12 of Regulation 1/2003.

22 MAIER-RIGAUD, Frank, Behavioural versus Structural Remedies in EU Competition Law (2016) in P. Lowe, M. Marquis, & G. Monti (eds.), **European Competition Law Annual 2013**, **Effective and Legitimate Enforcement of Competition Law** (chapter 7, 207-224). Hart Publishing, Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2457594.

23 EZRACHI, Ariel, 'Under (and Over) Prescribing of Behavioural Remedies' (2006) **University of Oxford, Centre for Competition Law and Policy, Working Paper** (L) 13/05, 1.

24 MOTTA, Massimo, POLO, Michele and VASCONCELOS, Helder, 'Merger Remedies in the European Union: An Overview' (2003), in François Lévêque and Howard Shelanski (eds), **Merger Remedies in American and European Union Competition Law** (Edward Elgar), 108.

25 Ibid.

effective behavioural remedy would be more burdensome for the taking concerned than the structural remedy[26]." Regulation 1/2003 established a preference in favor of behavioural remedies and claimed that behavioural remedies could be as effective as structural in most instances. Hellstrom et al. argue that "effective" is unclear, and behavioral and structural remedies work differently[27]. On the one hand, a structural remedy aims to change the market structures and the incentives of market participants[28]. On the other side, a behavioral remedy only aims to readdress the specific conduct of an undertaking and does not change market structures and the competition game itself[29]. In such a situation, assessing how a behavioral remedy can be equally effective as a structural remedy is unclear. Therefore, a new methodology might be needed in applying behavioral and structural remedies[30].

Ariel Ezrachi argues that structural remedies are superior to behavioral remedies because structural remedies result in a permanent, irreversible change in the market[31]. Due to its permanent nature, where a new business entity is established and new competitors are created, structural remedies only need extensive monitoring after implementation[32]. It means structural remedies are fast, cost-efficient, and permanent, significantly decreasing the workload of competition authorities post-transaction. Behavioral remedies are the opposite. Following the logic, behavioral remedies are less effective and need much more monitoring post-transaction due to their nature[33]. Although some behavioral remedies may address anti-competitive conduct directly and actively intervene, like structural remedies, the results of the intervention must be monitored circumspectly. The lengthy process of behavioral remedies makes them more burdensome for competition authorities when compared to structural remedies. Due to the same reason, achieving intended results through behavioral remedies

---

26 Article 7(1) of Regulation 1/2003.

27 MAIER-RIGAUD, Frank, HELLSTROM, Per and BULST, Friedrich Wenzel, 'Remedies in European Antitrust Law' (2009) 76 **Antitrust Law Journal** 1, 43-63, 47.

28 MAIER-RIGAUD, Frank, HELLSTROM, Per and BULST, Friedrich Wenzel, 'Remedies in European Antitrust Law' (2009) 76 **Antitrust Law Journal** 1, 43-63, 47.

29 Ibid.

30 See Section VI for more detail.

31 EZRACHI, Ariel, 'Under (and Over) Prescribing of Behavioural Remedies' (2006) **University of Oxford, Centre for Competition Law and Policy, Working Paper** (L) 13/05, 2.

32 DAVIES, Stephen and LYONS, Bruce, **Mergers and Merger Remedies in the EU: Assessing the Consequences for Competition** (2007, Edward Elgar) 41.

33 EZRACHI, 2.

might be at a different level[34]. Moreover, as often used as a supportive element to the commitment procedure, it is relatively hard to assess the "equal effectiveness" of a behavioral remedy to a structural one.

However, it does not mean that structural remedies are superior to behavioral remedies on every occasion. It is also argued that some anti-competitive conduct should be addressed by a behavioral remedy that seems a better fit for the relevant conduct[35]. The reason behind it is the flexibility and reversibility of behavioral remedies instead of structural remedies. In markets where fast innovation cycles are the norm, such as the high-technology markets and online platforms, irreversible changes are over-fixing and may be detrimental to healthy competition[36]. Since changing remedies back or reinstating the old market structures is not possible when implementing structural remedies, behavioral remedies become far superior when reflecting the realities of evolving markets. In this sense, competition authorities can effectively utilize behavioral remedies since they can design, monitor, and enforce them as desired[37]. Although behavioral remedies can readdress the situation several times to restore competition in the market, they could be more troublesome for competition authorities in terms of monitoring and costs. Structural remedies might lead to over-fixing, or behavioral remedies could be under-prescribed compared to the costs and monitoring processes. In such a situation, it is hard to evaluate which remedy is better for the relevant case, as indicated in Article 7(1) of Regulation 1/2003[38]. Therefore, a methodology is needed, including a study of the administrative costs and costs incurred by undertakings for the relevant and adequate application of structural and behavioral remedies instead of vague clauses in *ex-ante* regulations[39].

To sum up, for the remedial phase of Article 102 infringements, structural and behavioral remedies can be executed effectively as a reasonable option if a proper methodology is utilized to apply these legal tests. Considering the

---

34 EZRACHI, 2.

35 EZRACHI, 3.

36 EZRACHI, 4.

37 EZRACHI, 6.

38 It is indicated that: Structural remedies can only be imposed where there is no equally effective behavioural remedy or where any equally effective behavioural remedy would be more burdensome for the undertaking concerned than the structural remedy. If the Commission has a legitimate interest in doing so, it may also find that an infringement has been committed in the past.

39 See Section V for more information.

current situation and the legal framework, applying *ex-post* remedies seems feasible if a proper procedure is introduced. Also, this paper aims to discuss the applicability of remedies in the absence of a sector-specific regulation. In other words, the applicability of structural remedies to Article 102 infringements is the opposite of the DMA of the European Commission and Türkiye E-Commerce Act and other draft regulations. The idea here is to discuss the probability of *ex-post* intervention in an unregulated industry, the digital sector. It is essential to point out that *ex-ante* solutions involve many risks for the evolution of the newly emerging digital sector and its healthy competition. Although a rigid *ex-ante* regulation could harm innovation, incentives, and competition, a systemic application of the well-known and well-defined method, behavioral and structural remedies, would not have the same adverse effects. Although an *ex-ante* control mechanism is essential for the operation of the European Commission since it immensely affects the *ex-post* intervention, the body that has power is not the competition authorities but the lawmakers and sector-specific regulators. In a regulated market, the competition problems are mitigated through sector-specific legislation (such as energy, telecommunication, and transport), and the leading players are the lawmakers' so-called sector-specific regulatory authorities[40]. Therefore, the idea is to leave the digital sector liberated to allow the development of the online world and intervene, when necessary, through *ex-post* control regarding Article 102 violations. By this means, the power will be on the European Commission and the NCAs since they are well-equipped to deal with such competition issues.

III. MARKET POWER IN THE DIGITAL SECTOR

Dating back to the 1990s, the commercialization of the Internet has made it possible to connect personal computers worldwide and allowed new ways of communication between individuals and businesses on a global scale[41]. The transmission of data between individuals and technology pieces such as personal computers, smartphones, and other means led to the creation of the digital sector. In this newly emerged sector, many unique industries were created. In 2000, Richard Posner defined the digital sector as characterized by rapid technological development and digitalization. He identified three primary industries in the digital

---

[40] TAJANA, Alessandro, 'If I Had a Hammer... Structural Remedies and Abuse of Dominant Position' (2006) 7 **Competition and Regulation in Network Industries** 1, 3-29, 5.

[41] AHLBORN, Christian, EVANS, David and PADILLA, Atilano Jorge, 'Competition Policy in the New Economy: Is European Competition Law up to the Challenge?' (2001) 22 **European Competition Law Review** 5, 156.

sector: the computer software industry, internet businesses, and internet communication services[42]. It has been over 23 years now, and the classification of Posner is still relevant to some extent. Later, David Evans and Richard Schmalensee proposed a new definition: the information technology industry[43]. Since data collection and utilization are the core components for digitalizing services, the software industry, internet-based businesses, and communication services, the digital sector is information-based. However, it should be remembered that rapid digitalization and new methods of using data still change the structures of digital markets in the sector, and the evolution of the digital sector is still ongoing.

Technological developments not only led to the creation of new industries such as social networking or internet communications markets. It also contributed to the digitalization of long-time traditional industries such as retail, banking, shopping, and many others, which are all becoming internet-based. Intrinsically, digitalized industries' market structures also differentiate from traditional ones. While price can be a parameter to assess competition in every traditional industry, price is non-existent in many online industries on at least one market side. As Michael Gal and Daniel Rubinfeld emphasize, "*Free ... goods may be an effective means of growing demand for a product... A modern variant in software or digitally distributed content markets is to offer a basic product for free and charge for its premium versions or added features. Zero pricing may be motivated by increasing revenues in markets for complementary products that operate in more lucrative consumable or services markets*[44]." Therefore, the assessment of competition through demand/supply-side substitutability, which is based on price, including tests such as the small but significant and non-transitory increase in price (SSNIP) test, does not fit the digital sector. As identified in the European Parliament's Directorate-General for Internal Policies study, the current procedures in applying competition rules to Article 102 infringements in the digital sector need to be revised to answer current problems adequately[45]. Price-centric tools and other traditional methods

---

42 POSNER, Richard, 'Antitrust in the New Economy (2000)' **University of Chicago Law & Economics, Olin Working Paper** No. 106, 2.

43 EVANS, David and SCHMALENSEE, Richard, 'Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries' in Adam B. Jaffe, Josh Lerner and Scott Stern (eds) **Innovation Policy and the Economy**, Volume 2 (1st ed, MIT Press, 2002), 5.

44 GAL, Michael and RUBINFELD, Daniel, 'The Hidden Costs of Free Goods: Implication for Antitrust Enforcement' (2016) 80 **Antitrust Law Journal** 521, 525.

45 Directorate General for Internal Policies, European Parliament, 'Challenges for Competition Policy in a Digitalised Economy' (2015) A study for the ECON Committee, IP/A/ECON/2014-12 PE 542.235, 69.

do not reflect the structures of today's digital markets, and the situation becomes a more severe problem since almost all traditional markets are also in digitalization[46].

As a result, unique competition problems[47] occur in the digital sector, and competition law mechanisms need to identify market power and abusive conduct in the digital sector[48]. Therefore, the Large Online Platforms have recently faced many cases regarding abuse of their dominant position in Europe[49]. In these cases, Google has received almost 8 billion euros of fines in Shopping, Android, and AdSense cases. Also, Microsoft has received a 2 billion euro fine from the Commission for abusing its dominant position. In a similar pattern, Amazon has faced a 3 billion euro fine by the Italian Antitrust Authority[50], and Qualcomm almost 1 billion euros by the Commission (which was annulled); furthermore, recently, Facebook faced 3 billion euros of class action in the UK[51]. There are several cases against Large Online Platforms opened by NCAs. TCA conducted four different proceedings against Google, which all resulted in fines[52]. There are ongoing investigations regarding the

---

46 Ibid.

47 These problems can be listed as: monopolisation, assessment of market power and new types of anti-competitive abusive behaviour which are out of scope of this paper. For more information: KÖKSAL, Alptekin, **Big Data and Competition Law: Market Power Assessment in the Data-Driven Economy** (Routledge, London, 2023)

48 Directorate General for Internal Policies, European Parliament, 'Challenges for Competition Policy in a Digitalised Economy' (2015) A study for the ECON Committee, IP/A/ECON/2014-12 PE 542.235, 70.

49 Case COMP/C-3/37.792 Microsoft, Commission Decision of 24 March 2004 relating to a proceeding under Article 82 of the EC Treaty against Microsoft Corporation; Case COMP/C-3/39.530 Microsoft, Commission Decision of 16 December 2009 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement; Case T - 201/4 *Microsoft Corp. v Commission of the European Communities* [2007] ECLI: EU:T:2007:289; 2008; Case AT.39740 Google Search (Shopping) [2017] 4444 Final; Case No COMP/AT.40099, Google Android [2018] Commission Decision of 18 July 2018, C(2018) 4761 Final; Case No COMP/AT.40411 Google AdSense [2019] Commission Decision of 20 March 2019 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement, C(2019) 2173; Case no COMP/AT.40703 - Amazon Buy Box within the meaning of Article 11(6) of Council Regulation No 1/2003 and Article 2(1) of Commission Regulation No 773/2004; B6-22/16, *Facebook Inc., Facebook Ireland Ltd., Facebook Deutschland GmbH, Verbraucherzentrale Bundesverband e.V.* Bundeskartellamt 6th Decision Division (6 February 2019; Also See Apple Abuses: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_2061; https://www.acm.nl/sites/default/files/documents/summary-of-decision-on-abuse-of-dominant-position-by-apple.pdf.

50 Autorita Garante della Concorrenza e del Mercato (Italian Competition Authority), Press Release (9 December 2021), Available at: https://en.agcm.it/en/media/press-releases/2021/12/A528.

51 Available at: https://edition.cnn.com/2022/01/14/tech/facebook-uk-class-action/index.html.

52 TCA, Rekabet Kurulu 19.09.2018 T., 18-33/555-273 S. Google Shopping Decision; TCA, Rekabet Kurulu 12.11.2020 T., 20-49/675-295 S. Google Decision; TCA, Rekabet Kurulu 08.04.2021 T., 21-20/248-105 S. Google Decision.

significant technology undertakings, and the NCAs and the European Commission will likely open new investigations and cases.

As mentioned in the previous section, all these fines are to penalize and deter undertakings by their nature, and they are not very effective in ending abuse, even though they are enormous. Most of these fines do not create much financial harm to technology giants, which are the leaders of the world economy right now, and still, the most valuable companies are tech giants. For the very same reason, the deterrence effect of these fines is also minimal. Therefore, punitive tools such as fines are only sometimes sufficient to achieve competition. Policymakers worldwide are also aware of the emerging situation, and many legislators are now regulating the digital sector by penalizing the technology giants. However, without an *ex-ante* intervention, a stricter and systematic application of Article 7 of Regulation 1/2003 could mitigate the current digital sector problems and leave enough space for innovation. However, the application of structural remedies has been very limited in the US and the EU case law. Moreover, applying structural remedies *ex-post* regarding the digital sector is almost non-existent. Therefore, a few merger remedies are explained below to provide an estimated understanding.

Although used as a last result, structural remedies were used in the US in the 1960s and 1970s for abuse of dominant position and monopoly cases[53]. In that era, one of these structural remedies was the break-up of Bell Systems, which was wholly owned by AT&T in 1982[54]. It was a monopolization case in the long-distance communication services and telecommunications equipment. After eight years of investigation, Bell Systems was split into seven regional independent companies called Regional Bell Operating Companies (RBOCs), and AT&T would no longer supply them with equipment. It is widely considered a successful structural remedy and perceived positive feedback in the US[55]. In this sense, it is now widely argued that the conduct back in the 1970s could be applied again to the digital sector. However, the *laissez-faire* approach to competition and the idea of markets self-correcting themselves have been quite strong in the EU and the US, and it limits the application of structural remedies.

53 TAJANA, 8.

54 AT&T, 552 F. Supp. 131, 135 (DDC 1982).

55 TAJANA, 8.

Additionally, not an Article 102 infringement, but other cases involving structural remedies regarding network industries was another AT&T break up in the US. The Department of Justice (US) approved a $48 billion merger between AT&T and TCI (Tele-Communications Inc.) after AT&T agreed to complete divestiture of TCI's interests in Sprint PCS[56]. The DOJ reviewed AT&T's takeover of TCI, and it was argued that the takeover would restrict competition in the mobile phone services market. AT&T is one of the two largest providers in the market at the time of the transaction. TCI, which AT&T will take over, holds 23.5% of Sprint PCS, which operates nationwide in the same market. According to the settlement, AT&T's shares in Sprint PCS will be exchanged with a trustee to be appointed. Also, the AT&T/Media One takeover significantly restricted competition in the broadband household internet services market[57]. AT&T retains control of Excite (@Home), the largest broadband household internet services provider. Also, the acquired Media One has a 34% stake and significant management control of Service Co LLC, the second-largest provider in the same market. Therefore, AT&T has agreed to unbundle the shares it will hold in Service Co LLC, not to participate in the company's management, and only access its confidential information once the unbundling process is completed. The merger transaction is permitted under these conditions.

In the EU, as a part of competition law, structural remedies were used reluctantly, and it has a much shorter history than the US, as most of the structural remedies are applied through commitment mechanisms[58]. However, the increasing concerns regarding the technology companies and the unprecedented market power of these undertakings in the digital sector have forced the European Commission, NCAs, and academia to consider structural remedies as an effective tool to end Article 102 infringements in the digital sector. Regarding the technology companies, the first attempt for structural remedies as an *ex-post* remedy for abuse of dominant position was in the case of Microsoft[59]. In its decision, the European Commission found that Microsoft has been abusing its dominant position by "(a)

---

56 For more information: https://www.justice.gov/archive/atr/public/press_releases/1998/2139.htm.

57 For more information: https://www.cnet.com/tech/mobile/at-t-mediaone-merger-a-done-deal/.

58 In the energy sector, the E.ON, RWE and ENI cases are the most critical decisions regarding applying structural remedies through commitment mechanisms to Article 102-type infringements in the EU. Cases COMP/B-1/39.388 - E.ON Electricity/Wholesale German Electricity Wholesale Market and COMP/B-1/39.389 - German Electricity Balancing Market (Text with EEA relevance); Case COMP/39.402- RWE Gas Foreclosure, Commission Decision (18 March 2009), 2009 OJ. (C 133) 10; Case COMP/39.315 ENI Commission Decision 29/12/2010.

59 Case T - 201/4 *Microsoft Corp. v Commission of the European Communities* [2007] ECLI: EU:T:2007:289; Case COMP/C-3/37.792 Microsoft, Commission Decision of 24 March 2004 relating to a proceeding under Article 82 of the EC Treaty against Microsoft Corporation C[2004] 900 Final.

refusing to supply the Interoperability Information and allow its use to develop and distribute workgroup server operating system products and (b) making the availability of the Windows Client PC Operating System conditional on the simultaneous acquisition of Windows Media Player[60].” Regarding the second abuse (b), the initial remedy was structural[61]. According to the remedy, Microsoft must completely separate its operating system (Windows) from its application (Windows Media Player). Still, the remedy was rejected on appeal because this would have needed to be more efficient and would not have guaranteed increased competition[62]. Therefore, the agreed remedy was to offer a full-functioning version of the Windows OS that does not have Windows Media Player preinstalled. Still, Microsoft retains the right to offer a bundled version of Windows and Windows Media Player for the same price[63]. Therefore, the remedy was completely ineffective; customers are more interested in a “better” version of Windows (including Media Player) for the same price.

Apart from the Microsoft Media Player case, structural remedies were not available for other abuse cases in the EU, such as shopping, AdSense, and Android. However, as discussed in the next section, instead of imposing structural remedies *ex-post*, the authorities and lawmakers have been discussing regulating big tech companies like public utilities in the past and even breaking up these undertakings due to the increasing concerns in the sector[64]. Lawmakers have imposed ex-ante rules on once-liberalized markets in many network industries, including the energy sector[65]. Measures were splitting historical monopolists vertically or separating the network ownership of undertakings. Similarly, the European Parliament subcommittee calls for Google to break up. In this sense, the European Parliament has told the European Commission to ensure Google properly implements the enforcer’s online search remedies and even called for a “full-blown structural separation” between its general and specialized search services[66]. Also, the Federal Trade Commission sought to

---

60 Case COMP/C-3/37.792, p 299.

61 LYONS, 22.

62 LYONS, 22.

63 Case COMP/C-3/37.792, p 300.

64 International Monetary Fund, ‘Rising Corporate Market Power: Emerging Policy Issues’ (2021) **Staff Discussion Notes Volume 2021**, Issue 001.

65 Ibid.

66 ARANZE, Janith, EU parliament subcommittee calls for Google break-up, (27 October 2017) **Global Competition Review**, Available at: https://globalcompetitionreview.com/article/eu-parliament-subcommittee-calls-google-break.

break up Facebook. It announced a new antitrust lawsuit against Facebook, alleging that the social network has used monopoly power 'to suppress, neutralize and deter serious competitive threats' and must be broken up[67]. The policy shift on both sides of the Atlantic is explained below.

IV. REMEDIES INTRODUCED BY THE AUTHORITIES IN THE EU AND US

Instead of focusing on the application of Article 7 Regulation 1/2003 by the Commission and the NCAs, lawmakers in the EU (and the US more recently) are now regulating the once liberalized industry: the digital sector. A crackdown on big technology companies started due to a recent policy shift in the US back in 2020[68]. Although these undertakings are US-based and the Chicago School of Competition Law advocates for a non-interventionist approach that argues that digital markets will self-correct themselves, US authorities now call for the break-up of the Big Five, especially Meta (Facebook), Alphabet (Google), and Amazon. Also, the New Brandeis School of Competition and Lina Khan are at the forefront of advocating for an anti-monopoly agenda for the digital sector, which includes ex-ante measures to break up technology giants[69]. Also, the Biden administration selected Lina Khan as the head of the Federal Trade Commission in 2021.

In 2020, the Subcommittee on Antitrust, Commercial and Administrative Law of the House Committee on the Judiciary published a report of an investigation into the digital markets[70]. In the report, technology giants are referred to as "companies that once were scrappy, underdog start-ups that challenged the status quo have become the kinds of monopolies we last saw in the era of oil barons and railroad tycoons[71]." From the phrase the committee decided to include in the official report, it can be assumed that the progress toward *ex-ante* regulations for the digital sector is specifically politically aimed at some "some" undertakings, and competition concerns do not seem to be the number one consideration here. That being said, for the remedy to the

---

67 The Federal Trade Commission, Press Release, FTC Alleges Facebook Resorted to Illegal Buy-or-Bury Scheme to Crush Competition After String of Failed Attempts to Innovate (19 August 2021) Available at: https://www.ftc.gov/news-events/news/press-releases/2021/08/ftc-alleges-facebook-resorted-illegal-buy-or-bury-scheme-crush-competition-after-string-failed.

68 For more information: https://www.bbc.com/news/business-57783824.

69 KHAN, Lina, 'Amazon's Antitrust Paradox' (2016) 126 **Yale Law Journal** 3.

70 Available at: https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf.

71 Ibid, 6.

increasing market power of dominant tech giants, the study recommends structural separation of certain undertakings, prohibition of specific conduct, Interoperability and data portability, the presumptive prohibition against future mergers and acquisitions by technology giants, and even reasserting the anti-monopoly goals of competition law instead of consumer welfare approach to ensure a healthy and vibrant democracy[72]. New appointments of the Democrat Party administration to crucial institutions in the US signpost a significant change in the competition law and policy. Also, at the helm of Elisabeth Warren (Democratic Senator), competition investigations have recently started against Meta and Alphabet; strict measures are expected.

Also, the European Commission proposed an *ex-ante* regulation for the digital sector, the DMA, and the DSA, which already came into force. One main aim of the DMA is to create a pre-emptive setting of rules for the future[73]. The DMA might also replace alternative solutions based on data policies such as GDPR violations since it presumes anticompetitive effects beforehand and bans take-it-or-leave-it data policies[74]. Article 2 of the regulation defines the term 'gatekeepers', the content providers of core platform services. Also, it defines the term 'core platform services,' which are online intermediation services, online search engines, online social networking services, video-sharing platform services, interpersonal communication services, operating systems, web browsers, virtual assistants, cloud computing services, and online advertising services[75]. According to the regulation, specific undertakings with dominant positions in these markets are regarded as gatekeepers. Although the list of undertakings is not explicitly announced, the regulation's main subjects are the big technology companies. According to the Commission, the behavior and structures of these technology giants must be controlled through regulation, and healthy competition must be preserved in the digital sector by guaranteeing a level playing field for undertakings[76]. The DMA will force "gatekeepers" to implement particular behavior and refrain from unfair

---

72 Ibid, 20.

73 TÓTH, András, 'Creating More Public Value in the EU Competition Law by Reaching a Higher Level of Prevention in the Particular Context of the Digital Markets', in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International; Kluwer Law International 2021, Volume 44 Issue 4) 438.

74 KÖHLER, Alexander, 'Online Advertising and the Competition for Data: What Abuse are we Looking for?', in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International; Kluwer Law International 2021, Volume 44 Issue 2) 226.

75 Article 2 of the DMA.

76 European Commission, Questions and answers: Digital Markets Act: Ensuring fair and open digital markets (15 December 2020) Brussels.

conduct, which is considered a behavioral remedy[77]. Therefore, "gatekeepers" now have extra responsibilities by complying with additional obligations forced by the regulation. Moreover, as the Commission expresses, "When a company does not yet enjoy an entrenched and durable position, but it is foreseeable that a proportionate subset of obligations applies to ensure that the gatekeeper concerned does not achieve by unfair means an entrenched and durable position in its operations[78]."

Andreas Schwab from Parliament's Internal Market and Consumer Protection Committee stated, "*The agreement ushers in a new era of tech regulation worldwide ... From now on, they (Big Tech companies) must show that they also allow for fair competition on the Internet. The new rules will help enforce that basic principle. The law avoids any form of overregulation for small businesses. App developers will get new opportunities, small businesses will get more access to business-relevant data, and the online advertising market will become fairer*[79]." All in all, the steps taken to control the market power of technology companies are quite aggressive. In European Competition Law, as a fundamental principle, market power or dominance is not anti-competitive *per se*. Moreover, big technology companies are the most successful in their strategies, innovations, and business conduct. None of them were first movers in their respective markets[80]. In other words, their monopolistic powers or dominant positions do not stem from public authorities or legal monopolies, and they were just the most successful undertakings. Although commentators argue that the presence of regulation can inform the antitrust assessment[81], on the other side of the coin, in the absence of abusive conduct, controlling the market power of technology companies through *ex-ante* solutions might not be the optimal solution for the issues of the digital sector because the main problem within this sector is the abuse of market power.

Leaving an analysis that establishes dominance and conducting an effects-based analysis must have a competition law basis. Although Andreas Schwab underlines that the DMA is not and overregulation and innovation will not

---

77 Ibid.

78 Ibid.

79 Ibid.

80 Alphabet/Google, Apple, Amazon, Microsoft and Meta/Facebook.

81 DUNNE, Niamh, 'The Role of Regulation in EU Competition Law Assessment', in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International 2021, Volume 44 Issue 3) 288.

suffer when the digital sector becomes a regulated industry, sanctioning dominant undertakings without concern for abusive conduct and without a proper competition analysis is against the competition law and the policy's aim. More importantly, identifying abusive conduct in an emerging sector is vital for competition enforcement, and imposing *ex-post* remedies to abusive conduct through case law and precedent might be the correct option.

We claim that *ex-ante* regulation is unsuitable for digital markets in its current form, as *ex-ante* regulations might create several adverse effects. The *ex-ante* regulations might reduce productivity as a study indicates that shifting *ex-post* to *ex-ante* regulation in digital markets in the EU will result in a loss of about *85* billion EUR in GDP and 101 billion EUR in consumer welfare[82]. Studies suggest that when markets comply with a pre-determined set of operating procedures and standards, they reduce their efforts and investments in innovation[83]. As digital markets require constant innovation and thus investment, forcing them to operate under pre-determined rules will reduce the appetite for innovation. *Ex-ante* regulation creates a regulated market with complex rules and thus requires constant re-evaluation of the rules and changes when necessary. However, conducting a swift evaluation of dynamic markets, such as digital markets, is challenging for regulators. In many legal systems, changing the regulations once they are introduced takes a long time. An OECD study claims that existing regulatory frameworks might not be agile enough to accommodate the fast pace of technological development and consequently, rules might become outdated[84]. This creates a problem as outdated regulations harm innovation and create consumer harm. *Ex-ante* regulations, especially in complicated markets, create huge compliance costs, which causes market barriers for new entries. A pre-determined set of rules requires a constant internal compliance structure for enterprises, which creates an enormous transaction cost. This cost prevents small enterprises from investing in the market or, worse, completely abandoning it[85].

---

82 LEE-MAKIYAMA, Hosuk and GOPALAKRISHNAN Badri Narayanan, 'Economic Costs of Ex Ante Regulations' (2020) **ECIPE Occasional Papers**, No 7, October 2020, Available at: https://ecipe.org/wp-content/uploads/2020/10/ECI_20_OccPaper_07_2020_Ex-ante_Regulations_LY06.pdf.

83 Ibid.

84 OECD, Case Studies on the Regulatory Challenges Raised by Innovation and the Regulatory Responses (14 December 2021), Available at: https://www.oecd.org/publications/case-studies-on-the-regulatory-challenges-raised-by-innovation-and-the-regulatory-responses-8fa190b5-en.htm.

85 SHIKHAR, Singla, 'Regulatory Costs and Market Power' (2023) **Law Fin Working Paper** No. 47, Available at SSRN: https://ssrn.com/abstract=4368609.

The developments in the world indicate that there is no unified approach to regulating digital markets. The debate regarding the requirements of ex-ante rules is still very valid outside of the EU; Countries such as the USA and Canada[86] avoided ex-ante regulations regarding competition problems in digital markets[87]. In developing countries, in Asian and Latin American countries, there are no ex-ante regulations as the necessity of the ex-ante regulations has not been concretely proven yet[88]. To conduct a coherent study and stay within the limits of the subject of this article, further analysis will be left out of the scope of this paper. Instead, the focus will be on *ex-post* remedies.

The following sections discuss the application of structural remedies nationally to demonstrate the applicability of the strictest remedies available in European Competition Law to the global technology giants.

V. DEVELOPMENTS IN TURKISH COMPETITION LAW AS AN EXAMPLE OF APPLICATION

In 2020, the Grand National Assembly of Türkiye approved a few amendments to Law No. 4054 on the Protection of Competition[89]. Since the Turkish Competition Authority took office in 1997, Law No. 4054 has been effective in Türkiye. For almost 25 years, the TCA has gained vast experience in enforcing competition rules nationally. However, the changes in the international markets and markets in Türkiye have made it necessary to redraft more than a couple of provisions of Law No. 4054. Also, there have been changes in the law of the European Union for more than 25 years since Law No. 4054 was implemented. One of the most essential parts of the reform package in the EU was Regulation 1/2003, which contributed to creating a modern approach in the EU. In line with all developments at the national and international level and emerging needs, amendments to be made in Law No.

---

86 PECMAN, John, DO, Huy and MANGALY, Peter, 'Canada Should Avoid Costly *Ex Ante* Regulation of Digital Markets' **Competition Chronicle** (8 May 2023) Available at: https://www.competitionchronicle.com/2023/05/canada-should-avoid-costly-ex-ante-regulation-of-digital-markets/#_ftn9.

87 REINSCH, William and SUOMINEN, Kati, 'Are US Digital Platform Facing a Growing Wave of Ex Ante Competition Regulation' **Center for Strategic & International Studies** (21 June 2023) Available at: https://www.csis.org/analysis/are-us-digital-platforms-facing-growing-wave-ex-ante-competition-regulation.

88 For more information: https://www.inhousecommunity.com/article/europe-asia-great-divide-regulating-digital-economy/;

https://truthonthemarket.com/2023/11/07/latin-america-should-follow-its-own-path-on-digital-markets-competition/.

89 Act on the Protection of Competition no. 4054 Türkiye (RKHK).

4054 aim to achieve the contemporary level in competition law and provide the necessary structure for the competition authority to meet the markets' needs better. According to the Recital of the Amendment Proposal, amendments to Law No. 4054 on the Protection of Competition in Türkiye help bring Turkish competition law closer to the EU law and help create a precedent for the emerging issues in competition law[90]. Thus, it will be possible to make competition enforcement more active and dynamic by providing new rules. This will result in a more effective competition law system in Türkiye, which protects and improves competition in newly emerged markets to ensure efficiency, effective allocation, and welfare[91].

One of the changes in the amendment law is structural remedies. The former Law No. 4054 on Protection of Competition article 9 states that if the TCA determines that Articles 4, 6, and 7 of this Law (Article 101, 102 TFEU and merger control provisions) have been violated, the relevant undertakings shall be notified to ensure competition by imposing behavioral remedies[92]. Before imposing remedies, the TCA shall notify the relevant undertakings in writing of their opinions on ending the violation. As can be seen, the former regulation does not mention structural remedies as a tool to restore competition, unlike Regulation 1/2003. Nevertheless, structural remedies have been used as a competition tool in practice for a long time by the TCA[93].

However, the Amendment Law grants the TCA the power to explicitly impose structural remedies for violations of Articles 101 and 102[94]. The amended Article 9/1 states, "... The TCA shall notify in its final decision the behaviors that the relevant undertakings ... must carry out or refrain from to re-establish competition and *any structural remedies* in the form of undertakings transferring certain businesses, partnership shares or assets[95]." It also adds that behavioral and structural measures must be proportionate to the violation and necessary to end it effectively. However, structural measures are only used

---

90 Recital of RKHK: https://www5.tbmm.gov.tr/sirasayi/donem27/yil01/ss215.pdf.

91 Recital of RKHK.

92 Former RKHK Article 9.

93 Article 101: Erdemir/Borcelik, OYSA; Mergers: Marmara Gıda/Gıdasa; Doğan Gazetecilik; Oyak/Lafarg; Diageo/Mey içki; Afm/Mars; Luxottica/Essilor (01.10.2018, 18-36/585-286); Bayer/Monsanto Company (08.05.2018, 18-14/261-126); Tesco/Kipa; Lesaffre/Dosu Maya (12.12.2014, 14-52/903-411) Lesaffre/Dosu Maya (31.12.2018, 18-17/316-156)

94 Amendment law article 9.

95 Amendment law article 9. (*Emphasis added*)

when earlier behavioral measures are ineffective[96]. In this sense, if it is determined with the final decision that the behavioral measures have been ineffective, the undertakings are given at least six months to comply with the structural remedies. Moreover, the preamble of the provision mentions that the amendment made in the first paragraph of Article 9 of Law No. 4054 clearly states that the Competition Board may introduce structural measures in its final decisions only[97]. Moreover, legal guarantees are given to undertakings by the provision that structural measures grant an exceptional authority that can only be applied in cases where the behavioral measures introduced initially yielded positive results on the competition infringement.

Therefore, the amendment clearly and unequivocally indicates that:

- Structural remedies may be applied to Articles 101 and 102 violations *ex-post*.
- Structural remedies may be applied for each violation without restriction.
- Structural remedies can only be applied in the final decision.
- Structural remedies must be applied as a last resort where behavioral remedies are ineffective.
- Structural remedies must be proportionate.

Although the amendment is in line with Regulation 1/2003 on implementing Articles 101 and 102 TFEU, it introduces the abovementioned five-step methodology in applying structural remedies to Articles 101 and 102 violations. As mentioned above, in Article 7 of Regulation 1/2003, structural remedies can be imposed where there is no equally effective behavioral remedy or where an equally effective behavioral measure will be more burdensome for the undertaking concerned, which is a vague provision and moderately hard to implement by the NCAs and the Commission alike. However, Article 9 of Law No. 4054 introduces clarity. It provides legal predictability to undertakings subject to competition law infringements, as it states that structural remedies must be proportionate and can only be applied as a last resort where behavioral remedies are ineffective. The following section discusses applying first behavioral remedies and then structural remedies of Law No. 4054 *ex-post* in the context of competition infringements in the digital sector.

---

96 Ibid.

97 Preamble article 9.

VI. APPLICABILITY OF STRUCTURAL REMEDIES TO THE DIGITAL SECTOR ON A NATIONAL LEVEL

As we mentioned above, ex-ante regulation might create some adverse effects on digital markets. We do not claim all regulation has adverse effects. Rather, we claim that competition regulation must be the last resource, and digital markets are not suitable for competition regulation yet due to their dynamic nature. There are already extensive regulations regarding digital markets, such as the Digital Services Act, data protection, and others. Yet another interference with the market will create overregulation. Especially regarding competition regulation, there is no clear indication of market failure yet in digital markets. Almost all the competition infringement cases regarding digital markets are recent, and many of them have started to create solutions after enforcement with behavioral remedies.

The other problem with digital markets is the difficulty of defining markets and introducing predictable and applicable rules on these definitions. So-called digital markets do not constitute similar characteristics, and that is why the regulations and proposed regulations have several unrelated markets as subjects of the regulation. For example, the EU DMA divides markets into several subcategories and introduces several obligations under each market. It also has to define gatekeepers and introduce responsibilities for gatekeepers[98]. Briefly, the process of the application of DMA is as such: first, the gatekeeper designation procedure applies. The Commission may conduct market investigations to designate specific undertakings as gatekeepers by applying quantitative thresholds. After that, within six months of gatekeeper designations, compliance with obligations and prohibitions stage starts. Gatekeepers must provide several reports and submit audits during this period[99]. Designated gatekeepers must comply with specific "self-executing" obligations laid out in Articles 5, 6, and 7 DMA. Different obligations, such as access to data, prohibited practices, or interoperability requirements, follow different procedures. As an example, for Article 6 obligations, the Commission may also formally give directions to undertakings[100].

---

98 PODSZUN, Rupprecht, 'From Competition Law to Platform Regulation - Regulatory Choices for the Digital Markets Act' (2022) **Economics** Volume 17, No 1.

99 European Parliament, Digital Issues in Focus: Digital Markets Act Application Timeline (November 2022) Available at: https://www.europarl.europa.eu/RegData/etudes/ATAG/2022/739226/EPRS-AaG-739226-DMA-Application-timeline-FINAL.pdf.

100 Ibid.

Following the compliance period, obligations may be updated for each gatekeeper individually while EU Council and Parliament experts are consulted. On top of that, the Commission must also evaluate the regulation and report to the Parliament, the Council, and the European Economic and Social Committee while applying the DMA. To sum up, there are designation assessments, compliance assessments, monitoring, updates on prohibitions, implementations, reporting and notification requirements, audits, and even engaging with the lawmakers constantly. In other words, discussions regarding the application of DMA are already creating difficulties as authorities have to make several decisions constantly. Several companies already started legal challenges to the application of DMA and the decision of the Commissions[101]. In our opinion, the time has not yet come to interfere with digital markets as other options, especially competition law, have not materialized yet.

As an *ex-post* solution, the effectiveness of structural remedies cannot be foreseeable strictly for the competition infringements in the digital sector. However, sector-specific regulations, such as the DMA, are aggressive *ex-ante* measures that could lead to overregulation and could be detrimental to the innovative and dynamic character of the digital sector. The long-term effects of sector-specific regulation are especially yet to be seen since they are impossible to assess right now. However, structural remedies on specific occasions had positive economic and social consequences, such as the break-up of AT&T into regional undertakings in the US. Therefore, there might be better ideas than unproved aggressive measures to break up some undertakings for being 'gatekeepers' to specific markets for healthy competition in the digital sector. Instead, a well-known and established approach, such as the *ex-post* structural remedy, might be utilized. This Act means a greater focus for competition law assessment regarding Article 101 and 102 violations can be sustained, and enforcement powers would stay with the competition authorities rather than legislators. In other words, the powers of the competition authorities would be strengthened by the ex-post intervention in markets[102]. Therefore, NCAs and the Commission may use structural remedies as a last resort for competition law infringements in the digital sector without an *ex-ante* regulation. Also, it should be remembered that the problem with the applicability of structural remedies in

[101] COULTER, Martin, Apple files legal challenge to EU's Digital Markets Act **Reuters** (17 November 2023) Available at: https://www.reuters.com/legal/transactional/apple-files-legal-challenge-eus-digital-markets-act-2023-11-17/.

[102] TAJANA, 27.

Europe is that some national legislations empower NCAs to impose structural measures aligned with Article 7(1) of Regulation 1/2003, whereas others still need to[103].

Structural remedies' most important positive effects are their application as a last resort and a completely based case-by-case application with economic analysis[104]. Thus, it does not put all eggs in the same basket. It is based on already established market failure and only concentrates on correcting proven failures rather than designing the whole industry. The structural remedy's difficulty is finding a viable and long-lasting solution. However, the same applies to the regulation as well. Regarding local authorities' power to regulate global enterprises, the difficulty exists in any local application of local regulations to multinational enterprises[105].

The amendment to the Law on Protection of Competition in Türkiye introduces a procedure for applying structural remedies as a competition law remedy. The sequential application of first behavioral and then structural remedies promotes legal predictability and fairness and balances the application of remedies. Also, as the new law offers an *ex-post* solution when applied instead of a regulation such as the DMA, it may provide a suitable remedy to the dynamic character of the markets in the digital sector. Thus, the competition authorities should be empowered by imposing structural remedies to ensure a quick, simple, enforceable, and observable remedy[106]. In non-compliance with structural remedies, the NCAs may impose additional sanctions, such as fines or periodic penalty payments for compliance with structural remedies[107].

To be clear, predictable, equal, and fair, there are several conditions under which structural remedies must be met. First, the remedy must be proportional. Thus, the remedy imposed on an undertaking to end the infringement and ensure healthy competition must be, at most, what is appropriate and

---

103 ECN Recommendation on the Power to Impose Structural Remedies (9 December 2013) Available at: https://ec.europa.eu/competition/ecn/structural_remedies_09122013_en.pdf, 2.

104 BOSTOEN, Friso and VAN WAMEL, David, 'Antitrust Remedies: From Caution to Creativity' (2023) 14 **Journal of European Competition Law and Practice**, No. 8.

105 UNCTAD, International cooperation in competition law enforcement - challenges for developing countries and best practices (2021) **UNCTAD RESEARCH PAPER SERIES** No. 59, Available at:https://unctad.org/publication/international-cooperation-competition-law-enforcement-challenges-developing-countries.

106 ECN paper, 5.

107 ECN paper, 5.

necessary[108]. Nevertheless, it should not be forgotten that Article 3(3) of the TEU states that "a highly competitive social market economy, aiming at full employment and social progress", is one of the central policies and principles of the European Union[109]. In other words, although not as high as the right to property, ensuring healthy competition is also a pretty important principle of the EU law. The structural remedies should be exercised by the EU law's fundamental rights indicated in the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights[110]. Therefore, if proportional and necessary, structural remedies may be the most appropriate for specific issues in the digital sector.

Principally, structural remedies should not be used as a punitive tool[111]. As mentioned above, tools for punishment and tools for remedy significantly differ. The purpose of the remedy is to restore healthy competition by changing market structures. Only for non-compliance with structural remedies periodic penalty payments as part of the imposition of structural remedies can be regarded as punishment. Also, in terms of being a remedy instead of a punishment, structural measures must meet the necessities of the principle of legal certainty[112]. That said, any remedy must meet the necessities of the principle of proportionality and the principle of legal certainty. The CJEU ruled that: "The principle of legal certainty requires that rules imposing charges ... must be clear and precise so that he may know without ambiguity what are his rights and obligations and may take steps accordingly[113]." Therefore, any structural remedy imposed on infringing undertakings must be clear and precise so that undertakings know their obligations and the necessary steps to be taken. Amendment law No. 4054 brings legal certainty by creating a framework of first behavioral rather than structural remedies. Although there have been no structural remedies, the TCA imposed several behavioral remedies on the technology giants. It is the first step of *ex-post* intervention, and in case of non-compliance, structural remedies can be imposed on Google, Facebook, and Trendyol, an e-commerce giant in Türkiye. These decisions are explained below.

---

[108] HELLSTROM, 49.

[109] Article 3 TEU.

[110] ECN paper, 3.

[111] HELLSTROM, 50.

[112] HELLSTROM, 51.

[113] Joined cases 92 and 93/87 Commission of the European Communities v the French Republic and the United Kingdom of Great Britain and Northern Ireland [1989] ECLI: EU:C:1989:77, para 22.

Regarding applying the "first behavioral and structural remedies" method, the first and foremost example is the TCA's Google/Android decision[114]. In its decision, the TCA found that Google dominated the mobile operating systems market and abused its position through licensing agreements to promote its services and applications[115]. Thus, the TCA imposed behavioral remedies in its final decision to end infringement and ensure effective competition in the Turkish market. According to the decision, in addition to enormous fines, Google must remove the contractual provisions that regulate the obligation of installing the Google search widget, which it offers as a condition for licensing on the home screen. Thus, Google must ensure device manufacturers have the right to choose the search widget provider to be placed on the home screen, among Google or its competitors, and establish the freedom to place search widgets other than Google alone on the home screen[116]. Additionally, Google must remove the conditions included in the agreements for the default assignment of Google search in all search access points and must not introduce new obligations regarding the assignment of Google search as default at all search points that may arise due to design preferences[117]. Behavioral remedies also include removing the contractual provisions, which are provided as a condition for licensing, that regulate the obligation to install the Google Web component as default and exclusively in-app internet browser and removal of obligations from all existing contracts, especially Revenue Sharing Agreements signed with device manufacturers, stating that Google search competitors cannot be booted to devices and that device manufacturers cannot use products competing with Google search at any of the search points on the devices[118]. According to the newly established method in Türkiye, failure to comply with these obligations would result in structural remedies where Android and Google could become independent undertakings in Türkiye; thus, Android would not set Google apps and services as the default app or impose licensing preconditions.

Similarly, in another Google decision, the TCA found that Google is the dominant player in the search engine market and abused its position by favoring its services on the search results page[119]. Accordingly, the Authority imposed

114 TCA, Rekabet Kurulu 12.11.2020 T., 20-49/675-295 S. Google Decision.

115 Ibid, 116.

116 Ibid, 117.

117 Ibid, 117.

118 Ibid.

119 TCA, Rekabet Kurulu 08.04.2021 T., 21-20/248-105 S. Google Decision, 347.

behavioral measures in addition to fines. The Authority has decided that Google will not put its rivals in a disadvantageous position on the search results page and, thus, will report to the Authority annually for five years after implementing the behavioral measures[120].

More recently, the TCA has launched an investigation against Facebook and WhatsApp to determine whether there has been a violation of Article 6 of the Law on the Protection of Competition No. 4054 (Article 102 TFEU) after Facebook had announced that WhatsApp terms of use and privacy policy would be updated. Users must consent to the data sharing of WhatsApp with Facebook to continue using WhatsApp after 8 February 2021[121]. In its preliminary ruling, the Authority ruled that since the alleged anti-competitive conduct is likely to cause severe and irreversible consumer harm until the final decision of the investigation, Facebook must stop imposing the new conditions brought by WhatsApp users in Türkiye for the use of their data in other services as of 8 February 2021 and accordingly, comply with this measure[122]. That said, failure to comply with the remedy might lead to stricter remedies, such as structural ones. These examples are essential since the competition authorities of developing countries can also have the incentive and power to impose remedies and fines on global technology giants. As in the example of TCA, both Google and Facebook had to comply with the behavioral remedies imposed. It demonstrates that ex-post intervention on a national level can be enforceable and even effective in ending competition infringements[123].

In Türkiye, where the procedural establishment of behavioral and structural remedies now exist, and in Europe, the NCAs are incentivized for ex-post intervention in Article 102 infringements. One solid example is the Dutch Competition Authority. In 2019, the Dutch Competition Authority opened an abuse of dominance investigation against Apple[124]. Although the investigation has started to identify potential abuse by Apple in various categories of mobile applications (in AppStore), the investigation later focused on (paid) dating apps

120 Ibid, 347.

121 TCA, Rekabet Kurulu 11.01.2021 T., 21-02/25-M S. Decision.

122 Ibid.

123 EROĞLU, Muzaffer, Turkish Competition Board ("TCB") Has Launched an Investigation against Facebook for Its Recent Implementation Concerning Data Sharing Preferences (2022) **YIMEL**, BRILL: The Netherlands.

124 Available at: https://www.acm.nl/en/publications/acm-launches-investigation-abuse-dominance-apple-its-app-store.

only[125]. In its decision in 2021, the Dutch Competition Authority imposed behavioral remedies and periodic penalty payments on Apple for abusing its dominant position in the mobile operating systems market[126]. The Authority ruled that Apple abused its dominant position by prohibiting dating applications from offering third-party payment methods in their respective applications, thus imposing unreasonable conditions on dating app providers in the market[127].

As a behavioral remedy, the Dutch Authority required Apple to allow dating applications to use third-party payment methods in their applications in the iOS ecosystem, and also, dating applications must have the option to refer to payment options outside the dating application[128]. By this means, the Authority aimed to end competition infringement by letting dating applications choose their payment methods for digital content and services sold within the application in the Dutch App Store[129]. Additionally, the Authority ruled that Apple must include executing the changes or pay a periodic penalty of 5 million euros per week, up to a maximum of 50 million[130]. In other words, the Authority allowed Apple to change the payment conditions in the Dutch App Store, followed by periodic penalty payments for non-compliance remedies. On 14 January 2022, Apple announced: "To comply with the Authorities' order, we are introducing two optional new entitlements exclusively applicable to dating apps on the Netherlands App Store that provide additional payment processing options for users. Dating app developers who desire to continue using Apple's in-app purchase system may do so, and no further action is needed[131]."

The recent investigation of the Dutch Competition Authority is another significant move wherein the absence of an *ex-ante* regulation, imposing behavioral remedies on a national level, and compliance with the decision of the NCA are successful. This decision could become a landmark, especially in Europe, where other NCAs may follow the precedent and enforce competition

---

125 For more information: https://www.lexxion.eu/en/coreblogpost/the-apple-app-store-case-in-the-netherlands-a-potential-game-changer/.

126 Autoriteit Consument and Markt Decision ACM/19/035630 (24 August 2021) Available at: https://www.acm.nl/sites/default/files/documents/summary-of-decision-on-abuse-of-dominant-position-by-apple.pdf.

127 Ibid.

128 Ibid.

129 Ibid, para 20.

130 Ibid, para 21.

131 Available at: https://developer.apple.com/news/?id=mbbs4zql.

rules nationally without overregulating the liberalized digital sector. As a policy option, if non-compliance with behavioral remedies also leads to structural remedies and periodic penalty payments, it could become even more enforceable by the NCAs. To sum up, the *ex-post* application of behavioral and structural remedies by the NCAs is entirely possible. However, the method also needs a well-defined procedure, such as in the example of the TCA, where legal certainty and proportionality can be achieved. Therefore, decision-makers and regulators should work on alternative solutions before regulating the sector, such as applying structural remedies *ex-post* to Article 102 infringements. With some exceptions, competition law is applied at a national level; thus, structural remedies must be applied at the domestic level, which might create some difficulties when applied to multinational companies. However, the same problems also occur with regulating digital markets as they have local characteristics and need to be applied at the domestic level. In this case, more flexible and case-by-case applied remedy systems might have advantages in digital markets as they will consider all aspects of market competition problems and specific problems attributed to undertakings. Moreover, structural remedies are the last resort, and undertakings will be more cautious when they recognize their actions against competition might have serious consequences. Since all the structural remedies are bound to be designed as unique and custom-based, it is much easier to build a balance between competition concerns, innovation, and economic freedoms.

VII. CONCLUSION

As identified by the literature and competition authorities, there needs to be a sector-specific regulation and the effective application of this regulation. The EU bodies and countries such as Germany have decided to fill this gap through extensive *ex-ante* regulation. However, the digital world has just emerged and proliferates with technological advancement. Consequently, the competition in the digital sector is characterized by innovation. Therefore, a rushed law-making process may harm healthy competition in the digital sector. Specific and detailed *ex-ante* mechanisms should always be cautiously approached since lawmakers and policymakers may not be familiar with the developments in the specific sector. It is almost impossible for legal experts to analyze the effects of data and digitalization adequately.

As an alternative, competition authorities and courts must be at the forefront of tackling newly emerging challenges in competition law. In other words, the power to intervene in the issues related to the digital sector must be

on NCAs and expert courts. Competition law application has effective *ex-post* mechanisms, such as behavioral and structural remedies. The proactive application of structural remedies as an *ex-post* mechanism for abuse of dominant position situations, especially in the digital sector, seems to suit the unique characteristics of the digital sector. As discussed in this paper, the *ex-post* application of behavioral and structural remedies by the NCAs is reasonably possible and practical.

The *ex-post* method also needs a well-defined procedure, as in the example of the Turkish Competition Authority, where legal certainty and proportionality can effectively be achieved. Therefore, lawmakers should consider workable solutions such as applying structural remedies *ex-post* to Article 102 infringements instead of *ex-ante* mechanisms, which are unsafe for the structure and evolution of newly emerged sectors. That being said, structural remedies, as an *ex-post* measure, will unlikely be used as the initial response since behavioral remedies are the primary option to deal with Article 102 infringements. The language and conditions of structural remedies demonstrate that these kinds of remedies will be used, even for the digital sector, as a last resort. It is also crucial to note that an effective commitment mechanism plays a vital role in applying *ex-post* remedies. Furthermore, in Türkiye, the Draft Law that introduces similar provisions to the DMA has not passed. Yet, the TCA actively monitors the digital sector and introduces very dynamic measures to prevent abusive behaviors by big technology companies.

This paper argues that a new mechanism that will regulate the whole digital sector is unnecessary in basic terms. The competitive world and free market economy do not need a new regulated sector. Although regulations such as the DMA or Turkish E-commerce law may be effective against Large Platform, there might also be overregulation, which harms healthy competition and the market economy. Thus, the established mechanisms and tools must be applied to competition infringements before regulating the digital sector since legal experts are unfamiliar with data science. Therefore, a harmonized method that effectively uses structural remedies, behavioral remedies, and commitment mechanisms would be ideal for newly emerged issues in the digital sector.

Hakem Değerlendirmesi : Dış bağımsız.
Çıkar Çatışması : Yazarlar çıkar çatışması bildirmemiştir.
Finansal Destek : Yazarlar bu çalışma için finansal destek almadığını beyan etmiştir.
Peer-review *: Externally peer-reviewed.*
Conflict of Interest *: The authors has no conflict of interest to declare.*
Grant Support *: The authors declared that this study has received no financial support.*

BIBLIOGRAPHY

AHLBORN, C., EVANS, D. and PADILLA, AJ, 'Competition Policy in the New Economy: Is European Competition Law up to the Challenge?' (2001) 22 **European Competition Law Review** 5.

ARANZE, J., EU parliament subcommittee calls for Google break-up, (27 October 2017) **Global Competition Review**, Available at: https://globalcompetitionreview.com/article/eu-parliament-subcommittee-calls-google-break.

BAKER, J., Preserving a Political Bargain: The Political Economy of the non-interventionist challenge to monopolization enforcement (2010) 76 **Antitrust Law Journal** 3.

BORK, R., **The Antitrust Paradox: A Policy at War with Itself** (New York, 1978)

BOSTOEN, F. and VAN WAMEL, D., 'Antitrust Remedies: From Caution to Creativity' (2023) 14 **Journal of European Competition Law and Practice**, No. 8.

COULTER, M., Apple files legal challenge to EU's Digital Markets Act **Reuters** (17 November 2023)

DAVIES, S. and LYONS, B., **Mergers and Merger Remedies in the EU: Assessing the Consequences for Competition** (Edward Elgar Publishing, 2007)

DUNNE, N., 'The Role of Regulation in EU Competition Law Assessment', in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International; Kluwer Law International 2021, Volume 44 Issue 3)

EROĞLU, M, Turkish Competition Board ("TCB") Has Launched an Investigation against Facebook for Its Recent Implementation Concerning Data Sharing Preferences, (**YIMEL**, BRILL: The Netherlands, 2022).

EVANS, D. and SCHMALENSEE, R., 'Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries' in Adam B. Jaffe, Josh Lerner and Scott Stern (eds) **Innovation Policy and the Economy**, Volume 2 (1st ed, MIT Press, 2002)

EZRACHI, A., 'Under (and Over) Prescribing of Behavioural Remedies' (2006) **University of Oxford, Centre for Competition Law and Policy, Working Paper** (L) 13/05.

FALCE, V. and FARAONE, NMF, 'Digital Ecosystems in the Wake of a Legislative/ Regulatory Turmoil: A First (Tentative) Antitrust Assessment of the Italian (and European) Experience in the AGCM Case Law', in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International; Kluwer Law International 2023, Volume 46 Issue 1)

GAL, M. and RUBINFELD, D., 'The Hidden Costs of Free Goods: Implication for Antitrust Enforcement (2016) 80 **Antitrust Law Journal** 521.

KHAN, L., 'Amazon's Antitrust Paradox' (2016) 126 **Yale Law Journal** 3.

KÖHLER, A., 'Online Advertising and the Competition for Data: What Abuse are we Looking for?', in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International; Kluwer Law International 2021, Volume 44 Issue 2)

KÖKSAL, A., **Big Data and Competition Law: Market Power Assessment in the Data-Driven Economy** (Routledge, London, 2023)

LEE-MAKIYAMA, H. and GOPALAKRISHNAN B., 'Economic Costs of Ex Ante Regulations' (2020) **ECIPE Occasional Papers**, No 7, October 2020.

MAIER-RIGAUD, F., HELLSTROM, P. and FRIEDRICH BULST, FW, 'Remedies in European Antitrust Law' (2009) 76 **Antitrust Law Journal** 1, 43-63.

MAIER-RIGAUD, F., Behavioural versus Structural Remedies in EU Competition Law, in P. Lowe, M. Marquis, & G. Monti (eds.), **European Competition Law Annual 2013, Effective and Legitimate Enforcement of Competition Law** (Chapter 7, Hart Publishing, 2016)

MOTTA, M.; POLO, M. and VASCONCELOS, H., 'Merger Remedies in the European Union: An Overview', in François Lévêque and Howard Shelanski (eds), **Merger Remedies in American and European Union Competition Law** (Edward Elgar Publishing, 2003)

PECMAN, J., DO, H. and MANGALY, P., 'Canada Should Avoid Costly *Ex Ante* Regulation of Digital Markets' **Competition Chronicle** (8 May 2023)

PODSZUN, R., 'From Competition Law to Platform Regulation - Regulatory Choices for the Digital Markets Act' (2022) 7 **Economics** No 1.

POSNER, R., The Chicago School of Antitrust Analysis (1979) 127 **U. Pa. L. Rev.** 925.

POSNER, R., 'Antitrust in the New Economy (2000)' **University of Chicago Law & Economics, Olin Working Paper** No. 106.

REINSCH, W. and SUOMINEN, K., 'Are US Digital Platform Facing a Growing Wave of Ex Ante Competition Regulation' **Center for Strategic & International Studies** (21 June 2023)

SHIKHAR, Singla, 'Regulatory Costs and Market Power' (2023) **LawFin Working Paper** No. 47.

TAJANA, A., 'If I Had a Hammer... Structural Remedies and Abuse of Dominant Position' (2006) 7 **Competition and Regulation in Network Industries** 1, 3-29.

TÓTH, A., 'Creating More Public Value in the EU Competition Law by Reaching a Higher Level of Prevention in the Particular Context of the Digital Markets', in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International; Kluwer Law International 2021, Volume 44 Issue 4)

VAN DE WAERDT, P., "Everything the Data Touches is Our Kingdom': Market Power of 'Data Ecosystems", in José Rivas (ed), **World Competition Law and Economics Review**, (Kluwer Law International; Kluwer Law International 2023, Volume 46 Issue 1)

WHICH, R. and BAILEY, D., **Competition Law** (8th ed, Oxford University Press, 2015)

Others

Autorita Garante della Concorrenza e del Mercato (Italian Competition Authority), Press Release (9 December 2021), Available at: https://en.agcm.it/en/media/press-releases/2021/12/A528.

Directorate General for Internal Policies, European Parliament, 'Challenges for Competition Policy in a Digitalised Economy' (2015) A study for the ECON Committee, IP/A/ECON/2014-12 PE 542.235.

ECN Recommendation on the Power to Impose Structural Remedies (9 December 2013) Available at: https://ec.europa.eu/competition/ecn/structural_remedies_09 122013_en.pdf.

European Commission, Questions and Answers: Digital Markets Act: Ensuring Fair and Open Digital Markets (15 December 2020) Brussels.

European Commission, Press Release, Antitrust: Commission fines Qualcomm 997 million EUR for abuse of dominant market position (24 January 2018) Available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_18_421.

European Parliament, Digital Issues in Focus: Digital Markets Act Application Timeline (November 2022) Available at: https://www.europarl.europa.eu/RegData/etudes/ATAG/2022/739226/EPRS-AaG-739226-DMA-Application-timeline-FINAL.pdf.

Furman Report, 'Unlocking digital competition: Report of the Digital Competition Expert Panel' HM Treasury (2019)

International Monetary Fund, 'Rising Corporate Market Power: Emerging Policy Issues' (2021) Staff Discussion Notes Volume 2021, Issue 001.

Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations (Subcommittee on Antitrust, Commercial, and Administrative Law of the Committee on the Judiciary of the House of Representatives, October 2020)

OECD, Case Studies on the Regulatory Challenges Raised by Innovation and the Regulatory Responses (14 December 2021), Available at: https://www.oecd.org/publications/case-studies-on-the-regulatory-challenges-raised-by-innovation-and-the-regulatory-responses-8fa190b5-en.htm.

The Federal Trade Commission, Press Release, FTC Alleges Facebook Resorted to Illegal Buy-or-Bury Scheme to Crush Competition After String of Failed Attempts to Innovate (19 August 2021) Available at: https://www.ftc.gov/news-events/news/press-releases/2021/08/ftc-alleges-facebook-resorted-illegal-buy-or-bury-scheme-crush-competition-after-string-failed.

UNCTAD, International cooperation in competition law enforcement - challenges for developing countries and best practices (2021) UNCTAD RESEARCH PAPER SERIES No. 59, Available at: https://unctad.org/publication/international-cooperation-competition-law-enforcement-challenges-developing-countries.